



Evaluation of the Comprehensive
Primary Care Initiative

**Appendix to the
Fourth Annual Report**

May 2018

This page has been left blank for double-sided copying.

Evaluation of the Comprehensive Primary Care Initiative

Appendix to the Fourth Annual Report May 2018

Lead authors:

Deborah Peikes
Grace Anglin
Stacy Dale
Erin Fries Taylor
Ann O'Malley
Arkadipta Ghosh

Kaylyn Swankoski
Jesse Crosson
Rosalind Keith
Anne Mutti
Sheila Hoag
Pragya Singh

Ha Tu
Thomas Grannemann
Mariel Finucane
Aparajita Zutshi
Lauren Vollmer
Randall Brown

Contributing authors (in alphabetical order):

Patrick Balke
Bryan Bernecker
Karen Bogen
Nancy Clusen
Jared Coopersmith
Annie Doubleday
Nancy Duda
Claire Dye
Michael Fields
Tyler Fisher
Jonathan Gellar

Kristin Geonnotti
Sabitha Gopalsamy
Mary Harrington
Shannon Heitkamp
Tricia Higgins
John Holland
Tessa Huffman
Jasmine Little
Rachel Machta
Nancy McCall
Shira Mitchell

Norberto Morales
Nikkilyn Morrison
Brenda Natzke
Victoria Peebles
Dmitriy Poznyak
Eugene Rich
Brianna Sullivan
Xiaofan Sun
Derek Winsor

Submitted to:

U.S. Department of Health and Human Services
Centers for Medicare & Medicaid Services
7500 Security Blvd.
Baltimore, MD 21244-1850

Project Officer: Timothy Day

Contract Number: HHSM-500-2014-00034I\HHSM-500-T0010

Submitted by:

Mathematica Policy Research
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Fax: (609) 799-0005

Project Director and Principal Investigator: Deborah Peikes
Deputy Project Director and Principal Investigator: Erin Taylor
Co-Principal Investigators: Stacy Dale and Randall Brown
Reference Number: 50319

This page has been left blank for double-sided copying.

CONTENTS

APPENDIX A: CPC DRIVER DIAGRAM AND MILESTONE REQUIREMENTS	A.1
APPENDIX B: NUMBER OF PRACTICES, CLINICIANS, PAYERS, AND PATIENTS PARTICIPATING IN CPC	B.1
APPENDIX C: DETAILS ON PAYMENTS, DATA FEEDBACK, AND LEARNING CMS AND OTHER PAYERS PROVIDED TO CPC PRACTICES	C.1
APPENDIX D: PRACTICE SURVEY METHODS AND DATA TABLES	D.1
APPENDIX E: CLINICIAN AND STAFF SURVEY METHODS AND DATA TABLES.....	E.1
APPENDIX F: PATIENT SURVEY METHODS AND DATA TABLES	F.1
APPENDIX G: IMPACTS OF CPC ON MEDICARE EXPENDITURES, SERVICE USE, AND QUALITY OF CARE, BY REGION	G.1
APPENDIX H: COMPARISON GROUP SELECTION	H.1
APPENDIX I: IMPACTS METHODS: MODEL ESTIMATION, SAMPLE, AND MEASURES SPECIFICATION	I.1

This page has been left blank for double-sided copying.

APPENDIX TABLES

A.1.	CPC Milestones	A.4
B.1.	Number of practices, clinicians, payers, and patients participating in CPC, total and by region	B.3
C.1.	Features of the management infrastructure for data aggregation in Colorado, Ohio/Kentucky and Oklahoma, as of summer 2016	C.5
C.2.	Features of aggregated reports in Colorado, Ohio/Kentucky, and Oklahoma as of summer 2016	C.6
C.3.	Practices' review of CPC data feedback and their perspectives of that feedback in 2014, 2015, and 2016, CPC-wide and by region	C.7
C.4.	Practices' communication with and ratings of RLF in 2014, 2015, and 2016, CPC-wide and by region	C.9
D.1.	CPC practice survey rounds and fielding dates	D.3
D.2.	Sample and response rates for CPC and comparison practices, by survey round	D.5
D.3.	M-PCMH-A domains and topics	D.7
D.4.	Questions in the CPC practice survey and sources	D.9
D.5.	Items and domains in the CPC practice survey's modified PCMH-A (M-PCMH-A) module	D.24
D.6a.	Mean CPC and comparison practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, overall and by region (AR, CO, and NJ)	D.30
D.6b.	Mean CPC practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, by region (NY, OH/KY, OK, and OR)	D.34
D.7.	M-PCMH-A scores by CPC practice characteristics	D.37
D.8a.	Distributions of CPC and comparison practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, overall and by region (AR, CO, and NJ)	D.40
D.8b.	Distribution of CPC practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, by region (NY, OH/KY, OK, OR)	D.56
D.9a.	CPC and comparison practice infrastructure in 2014, 2015, and 2016, overall and by region (AR and CO)	D.68
D.9b.	CPC practice infrastructure in 2014, 2015, and 2016, by region (NJ, NY, OH/KY, OK, OR)	D.79
D.10a.	CPC practice experience with practice learning and assistance in 2014, 2015, and 2016, overall and by region (AR, CO, NJ)	D.91
D.10b.	CPC practice experience with practice learning and assistance in 2014, 2015, and 2016, by region (NY, OH/KY, OK, OR)	D.104
D.11a.	CPC practices' experience with CPC in 2014, 2015, and 2016, overall and by region (AR, CO, NJ)	D.117

D.11b.	CPC practices' experience with CPC in 2014, 2015, and 2016, by region (NY, OH/KY, OK, OR).....	D.128
D.12.	Percentage of CPC practices with different staff types by year and change over time	D.140
D.13.	Percentage of CPC practices with different staff types by year and change over time, by baseline practice size	D.141
D.14.	Mean number of FTE staff in CPC practices with staff type and change over time, by baseline practice size	D.143
D.15.	Mean number of FTE staff per primary care clinician in CPC practices with staff type and change over time, by baseline practice size	D.145
D.16.	Mean number of FTE staff in all CPC practices and change over time, by baseline practice size	D.147
D.17.	Mean number of FTE staff per primary care clinician in all CPC practices and change over time, by baseline practice size	D.149
D.18.	Percentage of CPC practices with different staff types, by system affiliation and mean HCC score of beneficiaries	D.151
D.19.	Regression-adjusted percentage of CPC and comparison practices with different staff types, in 2016.....	D.153
D.20.	Characteristics of CPC practices with and without care managers in 2016	D.154
E.1.	Sample sizes and weighted survey response rates for the primary care clinician survey, by round	E.6
E.2.	Sample sizes and weighted survey response rates for the practice staff survey, by round.....	E.7
E.3.	Characteristics used in nonresponse adjustments, by sample and round	E.8
E.4.	Characteristics of physician respondents after weighting	E.10
E.5.	Questions in the CPC clinician and staff surveys, sources, and location in the data tables	E.13
E.6.	Questions included in composite measures, and questions reoriented	E.25
E.7.	Care management scale (range from 0 [worst] to 1 [best])	E.28
E.8.	B1a: Practice can easily identify patients with a particular disease	E.28
E.9.	B1b: Practice has good systems in place to track test results and follow-up with patients about the results.....	E.29
E.10.	B1c: Practice has a good system for identifying patients at high risk for poor outcomes.....	E.29
E.11.	B1d: Practice intensifies services for patients at high risk for poor outcomes.....	E.30
E.12.	B1e: Practice individualizes services to different people with different needs.....	E.30
E.13.	B1f: Practice is effective in helping patients self-manage their chronic illness.....	E.31
E.14.	B1g: Patient care is coordinated well among physicians, nurses, and practice staff within practice.....	E.31

E.15.	B1h: This practice effectively utilizes community resources to help meet the health care needs of its patients	E.32
E.16.	B2: The share of high-risk patients or patients with a chronic illness, who receive a copy of their care plan (different from a visit summary) that includes self-management and clinical management goals and steps to reach these goals	E.32
E.17.	E1b: In a typical week, how often does respondent counsel patients on how they can care for their health or health conditions at home (e.g., diet, exercise, medication, smoking cessation, etc.).....	E.33
E.18.	E1c: In a typical week, how often does respondent connect patients with community resources to help manage their health conditions (e.g., self-help programs, Meals on Wheels, etc.)	E.33
E.19.	E1e: In a typical week, how often does respondent initiate contact with patients to discuss test results	E.34
E.20.	E1j: In a typical week, how often does respondent reconcile patient medications before or after visits	E.34
E.21.	E1k: In a typical week, how often does respondent communicate with other health care providers within their practice to obtain a professional opinion about their patients' health issues	E.35
E.22.	E1m: In a typical week, how often does respondent meet with care coordinators/care managers at this practice to discuss care of high-risk patients	E.35
E.23.	E1n: In a typical week, how often does respondent meet with clinicians at this practice to discuss care of high-risk patients.....	E.36
E.24.	F3a: How often in the past 12 months respondent has responded to EHR alerts for possible drug interactions	E.36
E.25.	I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.	E.37
E.26.	E1f: In a typical week, how often does respondent respond to patient phone calls to discuss their health issues	E.37
E.27.	E1g: In a typical week, how often does respondent initiate phone calls with patients to discuss their health issues	E.38
E.28.	E1h: In a typical week, how often does respondent read electronic communications (e.g., secure email) from patients.....	E.38
E.29.	E1i: In a typical week, how often does respondent respond to electronic communications from patients to discuss their health issues	E.39
E.30.	D4i: Staff and clinicians are involved in developing plans for improving quality.....	E.39
E.31.	D4o: During the past 12 months, this practice has changed how it takes initiative to improve patient care.....	E.40
E.32.	D4p: During the past 12 months, this practice has changed how it does business	E.40
E.33.	D5e: This practice has clearly articulated goals	E.41

E.34.	D5f: This practice operates at a high level of efficiency.....	E.41
E.35.	D5h: Staff monitor each other’s performance	E.42
E.36.	D5i: Staff exchange relevant information as it becomes available	E.42
E.37.	D5k: Staff correct each other’s mistakes	E.43
E.38.	D6a: People in this practice actively seek new ways to improve how they do things	E.43
E.39.	D6b: People at all levels of this practice openly talk about what is and isn’t working	E.44
E.40.	D6c: After trying something new, people in the practice take time to think about how it worked.....	E.44
E.41.	D6g: When we experience a problem in this practice, we make a serious effort to figure out what’s really going on.....	E.45
E.42.	Reciprocal Learning scale (range from 0 [worst] to 1 [best])	E.45
E.43.	D7a: Respondent is frequently taught new things by other people in the practice	E.46
E.44.	D7b: Respondent learns a lot about how to do the job by talking with other people in the practice.....	E.46
E.45.	D7c: When practice experiences a problem, they examine the issue carefully to come to an understanding of the problem and why it occurred.....	E.47
E.46.	D7d: Practice frequently learns about new things together as a group	E.47
E.47.	D7e: Respondent learns how to do things by sharing knowledge with team members	E.48
E.48.	E1a: In a typical week, how often does respondent participate in activities focused on quality improvement at this practice.....	E.48
E.49.	F2f: How often in the past 12 months respondent has generated reports on specific quality measures (e.g., the percentage of patients that have received recommended colon cancer screening).....	E.49
E.50.	G1: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, in the past 12 months	E.49
E.51.	G2a: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from a private insurance plan in the past 12 months. Mark all that apply.	E.50
E.52.	G2b: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from a state health agency in the past 12 months. Mark all that apply.....	E.50
E.53.	G2c: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from Medicaid in the past 12 months. Mark all that apply.	E.51
E.54.	G2d: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from Medicare in the past 12 months. Mark all that apply.....	E.51
E.55.	G2d: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from Medicare in the past 12 months, by whether the respondent’s practice is in a system* and practice size. Mark all that apply.	E.52

E.56.	G2e: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from other organizations in the past 12 months. Mark all that apply.....	E.54
E.57.	G3a: In response to the feedback reports on the performance of the practice or clinicians in the practice seen over the past 12 months, there have been changes to the work that the respondent performs.....	E.54
E.58.	G3b: In response to the feedback reports on the performance of the practice or clinicians in the practice seen over the past 12 months, there have been changes to the work performed by others in the practice.....	E.55
E.59.	G4a: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how clear was the presentation of information?.....	E.55
E.60.	G4b: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how timely was the information?.....	E.56
E.61.	G4c: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how accurate was the information?.....	E.56
E.62.	G4d: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how useful was the information?.....	E.57
E.63.	I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.	E.57
E.64.	D8a: Ability to provide optimal patient-centered care is limited by: lack of available specialists for patient referrals.....	E.58
E.65.	D8b: Ability to provide optimal patient-centered care is limited by: lack of local community resources for patient referrals (e.g., health education services, family counseling, etc.).....	E.58
E.66.	D8c: Ability to provide optimal patient-centered care is limited by: lack of timely information regarding patient care from providers outside the practice.....	E.59
E.67.	D8d: Ability to provide optimal patient-centered care is limited by: challenges in communicating with specialists in or outside the practice.....	E.59
E.68.	E1d: In a typical week, how often does respondent assist patients in accessing health care services from other providers (e.g., providing referrals, obtaining prior authorizations from insurance providers, etc.).....	E.60
E.69.	E1I: In a typical week, how often does respondent communicate with other health care providers outside this practice to obtain their professional opinion about patients' health issues.....	E.60
E.70.	I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.	E.61
E.71.	F1: Practice has an EHR system for managing patient care.....	E.61
E.72.	EHR usage scale (range from 0 [worst] to 1 [best]).....	E.62

E.73.	F2a: How often in the past 12 months respondent has flagged or transferred patient data to other providers within the practice	E.62
E.74.	F2b: How often in the past 12 months respondent has flagged or transferred patient data to other providers outside the practice organization	E.63
E.75.	F2c: How often in the past 12 months respondent has tracked communications with other health care providers.....	E.64
E.76.	F2d: How often in the past 12 months respondent has reviewed images of test results electronically (e.g., using a picture archiving and communication system or PACS)	E.65
E.77.	F2e: How often in the past 12 months respondent has reviewed multiple test results for a patient and graphed changes over time.....	E.66
E.78.	F2f: How often in the past 12 months respondent has generated reports on specific quality measures (e.g., the percentage of patients that have received recommended colon cancer screening)	E.67
E.79.	F2g: How often in the past 12 months respondent has generated After Visit Summaries for patients to take with them	E.68
E.80.	F3a: How often in the past 12 months respondent has responded to EHR alerts for possible drug interactions	E.69
E.81.	F3b: How often in the past 12 months respondent has responded to EHR alerts or reminders to the practice team for routine preventive care or chronic illness care (e.g. mammography or overdue hemoglobin A1c test for diabetes).....	E.70
E.82.	F3c: How often in the past 12 months respondent responded to EHR alerts or reminders to patients for routine preventive care or chronic illness care.....	E.71
E.83.	F4a: Practice's EHR is a big help to respondent in providing quality care to patients	E.71
E.84.	F4b: Practice's EHR provides prompts at the time of the patient visit to remind respondent of key actions to take for the patient	E.72
E.85.	F4c: Practice's EHR is well integrated into the practice's daily workflow	E.72
E.86.	F4d: Respondent trusts the validity of the data in the practice's EHR.....	E.73
E.87.	A1: The following services are provided for patients on-site, at this office:	E.73
E.88.	A2a: How likely the respondent is to manage the patient's condition themselves if the patient presents with: new onset low back pain.....	E.74
E.89.	A2b: How likely the respondent is to manage the patient's condition themselves if the patient presents with: amenorrhea	E.74
E.90.	A2c: How likely the respondent is to manage the patient's condition themselves if the patient presents with: depression symptoms.....	E.75
E.91.	A2d: How likely the respondent is to manage the patient's condition themselves if the patient presents with: diabetes symptoms.....	E.75
E.92.	A2e: How likely the respondent is to manage the patient's condition themselves if the patient presents with: sore throat symptoms	E.76

E.93.a.	A2f: How likely the respondent is to manage the patient's condition themselves if the patient presents with: a chronic respiratory problem (such as COPD).....	E.76
E.93.b.	A2: Average number of conditions (out of 6) that the respondent is very likely to manage themselves, rather than immediately referring the patient to a specialist	E.77
E.94.	A3: For patients who are admitted to the hospital, how likely the respondent or someone from the practice is to be actively involved with the patients' care during their hospital stay	E.77
E.95.	D8e: Ability to provide optimal patient-centered care is limited by: inadequate time for patient counseling or education	E.78
E.96.	D8f: Ability to provide optimal patient-centered care is limited by: administrative tasks unrelated to direct patient care	E.78
E.97.	D8g: Ability to provide optimal patient-centered care is limited by: limited time to connect patients to local community resources (e.g., health education services, family counseling, etc.)	E.79
E.98.	D8h: Ability to provide optimal patient-centered care is limited by: low levels of engagement from patients	E.79
E.99.	D8i: Ability to provide optimal patient-centered care is limited by: insufficient number or type of staff employed at the practice	E.80
E.100.	D8j: Ability to provide optimal patient-centered care is limited by: challenges with Electronic Health Records (EHRs).....	E.80
E.101.	D8k: Ability to provide optimal patient-centered care is limited by: inadequate financial incentives from payers	E.81
E.102.	D8l: Ability to provide optimal patient-centered care is limited by: inadequate financial incentives from my practice	E.81
E.103.a.	D8: Average number of barriers (out of 8) that the respondent reported limited somewhat or a great deal their ability to provide patient-centered care.....	E.81
E.103.b.	D8: Average number of barriers (out of 8) that the respondent reported limited a great deal their ability to provide patient-centered care	E.82
E.104.	C1a: Primary Care Physician (MD or DO) is a team member in a typical week.....	E.82
E.105.	C1b: Nurse Practitioner (NP) is a team member in a typical week.....	E.83
E.106.	C1c: Physician Assistant (PA) is a team member in a typical week	E.83
E.107.	C1d: Registered Nurse (RN) is a team member in a typical week	E.84
E.108.	C1e: Licensed Practical Nurse (LPN) or Vocational Nurse (LVN) is a team member in a typical week.....	E.84
E.109.	C1f: Medical Assistant is a team member in a typical week	E.85
E.110.	C1g: Practice Supervisor or Practice Manager is a team member in a typical week	E.85
E.111.	C1h: Laboratory or Radiology Technician is a team member in a typical week.....	E.86
E.112.	C1i: Dietitian or Nutritionist is a team member in a typical week	E.86

E.113. C1j: Pharmacist or Pharmacy Technician is a team member in a typical week	E.87
E.114. C1k: Behavioral Health, Clinical Psychologist, or Social Worker is a team member in a typical week.....	E.87
E.115. C1l: Physical or Respiratory Therapist is a team member in a typical week	E.88
E.116. C1m: Health Educator is a team member in a typical week	E.88
E.117. C1n: Care Manager or Care Coordinator is a team member in a typical week	E.89
E.118. C1o: Quality Improvement (QI) Specialist is a team member in a typical week	E.89
E.119. C1p: Community Services Coordinator is a team member in a typical week	E.90
E.120. C1q: Receptionist is a team member in a typical week	E.90
E.121. C1r: Other types of staff are team members in a typical week	E.91
E.122. I7: Respondent's professional licensing or certification. Mark all that apply.....	E.92
E.123. Team Functioning (SOAPC) overall scale (range from 0 [worst] to 1 [best]).....	E.93
E.124. Team Functioning (SOAPC): Communication subscale (range from 0 [worst] to 1 [best])	E.93
E.125. Team Functioning (SOAPC): Decision making subscale (range from 0 [worst] to 1 [best])	E.94
E.126. Team Functioning (SOAPC): Stress/chaos subscale (range from 0 [worst] to 1 [best])	E.94
E.127. Team Functioning (SOAPC): History of change subscale (range from 0 [worst] to 1 [best])	E.94
E.128. D4a: When there is a conflict, the people involved usually talk it out and resolve the problem successfully.....	E.95
E.129. D4b: Our staff has constructive work relationships.....	E.95
E.130. D4c: There is often tension among the people I work with	E.96
E.131. D4d: Staff members and clinicians I work with operate as a real team	E.96
E.132. D4e: This practice encourages staff and clinicians to give input for making changes and improvements.....	E.97
E.133. D4f: All of the staff and clinicians participate in important decisions about clinical operations (e.g., workflow).....	E.97
E.134. D4g: Practice leadership discourages nursing staff from taking initiative in direct patient care	E.98
E.135. D4h: This practice defines success as teamwork and concern for people	E.98
E.136. D4i: Staff and clinicians are involved in developing plans for improving quality.....	E.99
E.137. D4j: It's hard to make any changes because we are so busy seeing patients	E.99
E.138. D4k: Staff and clinicians very frequently feel overwhelmed by the work demands	E.100
E.139. D4l: It is stressful to work in this practice	E.100
E.140. D4m: This practice is almost always in chaos	E.101

E.141. D4n: Things have been changing so fast in this practice that it is hard to keep up with what is going on	E.101
E.142. D4o: During the past 12 months, this practice has changed how it takes initiative to improve patient care.....	E.102
E.143. D4p: During the past 12 months, this practice has changed how it does business	E.102
E.144. D4q: During the past 12 months, this practice has changed how everyone relates.....	E.103
E.145. Teamwork Perceptions scale (range from 0 [worst] to 1 [best])	E.103
E.146. Teamwork Perceptions: Team structure scale (range from 0 [worst] to 1 [best])	E.104
E.147. Teamwork Perceptions: Situation monitoring scale (range from 0 [worst] to 1 [best])	E.104
E.148. D5a: The skills of staff overlap sufficiently so that work can be shared when necessary	E.105
E.149. D5b: Staff are held accountable for their actions	E.105
E.150. D5c: This practice makes efficient use of resources (e.g., staff supplies, equipment, information)	E.106
E.151. D5d: Staff understand their roles and responsibilities	E.106
E.152. D5e: This practice has clearly articulated goals	E.107
E.153. D5f: This practice operates at a high level of efficiency.....	E.107
E.154. D5g: Staff effectively anticipate each other's needs	E.108
E.155. D5h: Staff monitor each other's performance	E.108
E.156. D5i: Staff exchange relevant information as it becomes available	E.109
E.157. D5j: Staff members frequently meet to re-evaluate patient care goals.....	E.109
E.158. D5k: Staff correct each other's mistakes	E.110
E.159. Adaptive Reserve scale (range from 0 [worst] to 1 [best]).....	E.110
E.160. D6a: People in this practice actively seek new ways to improve how they do things	E.111
E.161. D6b: People at all levels of this practice openly talk about what is and isn't working	E.111
E.162. D6c: After trying something new, people in the practice take time to think about how it worked.....	E.112
E.163. D6d: Practice leadership promotes an environment that is an enjoyable place to work	E.112
E.164. D6e: Leadership in this practice creates an environment where things can be accomplished	E.113
E.165. D6f: Leadership strongly supports practice change efforts.....	E.113
E.166. D6g: When we experience a problem in this practice, we make a serious effort to figure out what's really going on.....	E.114
E.167. D6h: I have many opportunities to grow in my work	E.114

E.168.	D6i: People in this practice operate as a real team	E.115
E.169.	D6j: Most of the people who work in this practice seem to enjoy their work	E.115
E.170.	D6k: This practice is a place of joy and hope	E.116
E.171.	D6l: Mistakes have led to positive changes here.....	E.116
E.172.	D6m: It is hard to get things to change in this practice	E.117
E.173.	D6n: This practice learns from its mistakes	E.117
E.174.	E2a: Proportion of time each week the respondent does work that could be done by someone with less training.....	E.118
E.175.	E2a: Proportion of time each week the respondent does work that could be done by someone with less training, excluding responses of don't know or does not apply.....	E.118
E.176.	E2a: Percentage of physicians reporting that 25 percent or more of their time is spent doing work that could be done by someone with less training, by subgroup, 2016	E.119
E.177.	E2b: Proportion of time each week the respondent does work for which they do not have enough training	E.120
E.178.	E2b: Proportion of time each week the respondent does work for which they do not have enough training, excluding responses of don't know or does not apply	E.120
E.179.	E2b: Percentage of physicians reporting that less than 25 percent of their time is spent doing work for which they do not have enough training, by subgroup, 2016.....	E.121
E.180.	E2c: Proportion of time each week the respondent does work that is well-matched to their training.....	E.122
E.181.	E2c: Proportion of time each week the respondent does work that is well-matched to their training, excluding responses of don't know or does not apply	E.122
E.182.	E2c: Percentage of physicians reporting that 75 percent or more of their time is spent doing work that is well matched to their training, by subgroup, 2016	E.123
E.183.	Control over Work scale (range from 0 [worst] to 1 [best]) (all respondents)	E.123
E.184.	Control over work scale (range from 0 [less control] to 1 [more control]), by subgroup, 2016	E.124
E.185.	E3a: The amount of control the respondent has over the hours they work	E.124
E.186.	E3b: The amount of control the respondent has over details of the office or their practice schedule	E.125
E.187.	E3c: The amount of control the respondent has over the volume of paperwork they have to do (on paper or electronic)	E.125
E.188.	E3d: The amount of control the respondent has over work interruptions (e.g., telephone calls, unscheduled patients).....	E.126
E.189.	E3e: The amount of control the respondent has over workplace issues (e.g., office space, facilities, supplies)	E.126
E.190.	E3f: The amount of control the respondent has over the pace of their work	E.127

E.191.	E3g: The amount of control the respondent has over the allotment of additional time for difficult-to-help patients	E.127
E.192.	E4: Respondent is satisfied overall with current job	E.128
E.193.	E4: Percentage of physicians that agree or strongly agree that they are satisfied with their current job, by subgroup, 2016	E.128
E.194.	Maslach Burnout Inventory: Emotional exhaustion subscale (range from 0 [more exhausted] to 1 [less exhausted])	E.129
E.195.	Maslach Burnout Inventory: Depersonalization subscale (range from 0 [more depersonalization] to 1 [less depersonalization])	E.129
E.196.	Maslach Burnout Inventory: Personal accomplishment subscale (range from 0 [less accomplishment] to 1 [more accomplishment])	E.130
E.197.	E5a: Respondent deals effectively with patients' problems.....	E.130
E.198.	E5b: Respondent feels they treat some patients as if they were impersonal objects	E.131
E.199.	E5c: Respondent feels emotionally drained from work.....	E.132
E.200.	E5d: Respondent feels fatigued from facing another day on the job	E.133
E.201.	E5e: Respondent has become more callous towards people since taking the job	E.133
E.202.	E5f: Respondent feels they are positively influencing others' lives through work	E.134
E.203.	E5g: Respondent feels working with people all day is a strain.....	E.134
E.204.	E5h: Respondent doesn't care what happens to some patients	E.135
E.205.	E5i: Respondent feels exhilarated after working closely with patients	E.135
E.206.	E5j: Respondent feels burned out from work.....	E.136
E.207.	E6: Using respondent's own definition of burnout, statement that best describes respondent's situation at work	E.137
E.208.	Percentage of physicians reporting high levels of burnout, by subgroup, 2016	E.138
E.209.	E7: Likelihood of respondent leaving their current practice within two years	E.138
E.210.	E7: Respondent's current age, by likelihood of respondent leaving their current practice within two years.....	E.139
E.211.	Percentage of physicians reporting that they are likely to or definitely leaving their current practice within two years, by subgroup, 2016	E.140
E.212.	H2: Overall, considering the amount of work required by CPC, respondent's assessment of how adequate or inadequate the CPC payments were across all payers	E.140
E.213.	H4a: Rating of how useful this assistance has been to respondent in improving primary care: CPC webinars	E.141
E.214.	H4a: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: CPC webinars	E.141

E.215.	H4b: Rating of how useful this assistance has been to respondent in improving primary care: practice-to-practice learning facilitated by CPC	E.142
E.216.	H4b: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: practice-to-practice learning facilitated by CPC	E.142
E.217.	H4c: Rating of how useful this assistance has been to respondent in improving primary care: in-person coaching at this practice provided by CPC	E.143
E.218.	H4c: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: in-person coaching at this practice provided by CPC	E.143
E.219.	H4d: Rating of how useful this assistance has been to respondent in improving primary care: CPC-facilitated in-person meetings for practices and others in CPC	E.144
E.220.	H4d: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: CPC-facilitated in-person meetings for practices and others in CPC	E.144
E.221.	H4e: Rating of how useful this assistance has been to respondent in improving primary care: CPC Connect	E.145
E.222.	H4e: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: CPC Connect	E.145
E.223.	H1: Respondent's assessment of which individual(s) in the practice made a substantive contribution of time or leadership to implement practice improvements to meet CPC Milestones	E.146
E.224.	H5a: How important respondent believes the following is to improving the care respondent provides to patients: providing around-the-clock access to care to your patients.....	E.146
E.225.	H5b: How important respondent believes the following is to improving the care respondent provides to patients: providing continuity of care to your patients	E.147
E.226.	H5c: How important respondent believes the following is to improving the care respondent provides to patients: planning for the chronic care needs of your patients	E.147
E.227.	H5d: How important respondent believes the following is to improving the care respondent provides to patients: planning for the preventive care needs of your patients	E.148
E.228.	H5e: How important respondent believes the following is to improving the care respondent provides to patients: stratifying patients by risk level.....	E.148
E.229.	H5f: How important respondent believes the following is to improving the care respondent provides to patients: providing patients with risk-based care management services.....	E.149
E.230.	H5g: How important respondent believes the following is to improving the care respondent provides to patients: providing behavioral or mental health services integrated within primary care	E.149
E.231.	H5h: How important respondent believes the following is to improving the care respondent provides to patients: providing medication management to high-risk patients	E.150

E.232.	H5i: How important respondent believes the following is to improving the care respondent provides to patients: engaging patients and their families in their care	E.150
E.233.	H5j: How important respondent believes the following is to improving the care respondent provides to patients: collecting and using patient feedback to improve quality of care and patient experience over time	E.151
E.234.	H5k: How important respondent believes the following is to improving the care respondent provides to patients: making sure that care is coordinated across the medical neighborhood	E.151
E.235.	H5l: How important respondent believes the following is to improving the care respondent provides to patients: using data feedback on clinical measures to improve quality of care over time	E.152
E.236.	H5m: How important respondent believes the following is to improving the care respondent provides to patients: using shared decision-making tools so that providers and patients work together to arrive at care decisions	E.152
E.237.	H6: Overall, how much participation in the CPC initiative changed the quality of care or service that respondent currently provides to their patients	E.153
E.238.	Percentage of physicians reporting that the CPC initiative improved a lot or somewhat the quality of care or service they provide to their patients, by subgroup, 2016.....	E.153
E.239.	H7: Knowing what respondent knows now, if they could go back to when CPC was announced in 2012, how much they would support or oppose their practice's participation in the CPC initiative.....	E.154
E.240.	Percentage of physicians who, knowing what they know now, would strongly support their practice's participation in CPC if they could go back to 2012, by subgroup 2016	E.154
E.241.	H8: The main reason(s) the respondent would support participation in the CPC initiative. Mark all that apply.	E.155
E.242.	H8: The main reason(s) the respondent would support participation in the CPC initiative, by whether the respondent would oppose or support their practice's participation in CPC. Mark all that apply.	E.156
E.243.	H9: The main reason(s) the respondent would oppose participation in the CPC initiative. Mark all that apply.	E.157
E.244.	H9: The main reason(s) the respondent would oppose participation in the CPC initiative, by whether the respondent would oppose or support their practice's participation in CPC. Mark all that apply.	E.158
E.245.	D9: Average percent of clinician's total compensation that is based on:.....	E.159
E.246.	D9: Average percent of clinician's total compensation, among those with nonzero compensation in that category:	E.159
E.247.	D9: Percent of clinicians with any compensation in these categories:	E.160
E.248.	D9: Percent of clinicians with 100 percent of their compensation in these categories:	E.160
E.249.	I1: Respondent's gender	E.161
E.250.	I2: Respondent's current age	E.161

E.251.	I3: Respondent is of Hispanic or Latino origin	E.162
E.252.	I4: Respondent's race	E.162
E.253.	I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.	E.163
E.254.	I6: Respondent's primary role at this practice site. That is, the job role in which they work the most hours in a typical week.	E.164
E.255.	I7: Respondent's professional licensing or certification. Mark all that apply.	E.165
E.256.	I8: How long respondent has worked at the practice	E.166
E.257.	I9: In a typical week, number of hours respondent works at the practice	E.166
E.258.	I10: The percentage of time during a typical work week at the practice that the respondent spends providing direct patient care	E.167
E.259.	I11: Respondent provides predominantly, but not necessarily exclusively, primary care services	E.167
E.260.	D1: Who owns this practice. Mark all that apply.	E.168
E.261.	D2a: Practice participates in the Physician Quality Reporting System (PQRS)	E.168
E.262.	D2b: Practice participates in the Health Care Innovation Awards (sponsored by CMS)	E.168
E.263.	D2c: Practice participates in the Medicare Shared Savings Program (also known as the Medicare ACO program)	E.169
E.264.	D2d: Practice participates in Independence at Home	E.169
E.265.	D2e: Practice participates in Pioneer ACO	E.169
E.266.	D2f: Practice participates in the Meaningful Use / EHR Incentive	E.170
E.267.	D2g: Practice participates in Medicaid Health Home	E.170
E.268.	D2h: Practice participates in a federally-sponsored shared savings initiative	E.170
E.269.	D2i: Practice participates in a state or community based quality measures reporting program	E.171
E.270.	D2j: Practice participates in a state or regional health information exchange	E.171
E.271.	D2k: Practice participates in a purchaser-sponsored program linking payment to performance or value (such as a bonus payment from an insurer for quality)	E.171
E.272.	D2l: Practice participates in a consortium or collaborative working on quality improvement (for example, Institute for Healthcare Improvement collaborative or EHR users' group)	E.172
E.273.	D3: The practice currently has recognition as a 'medical home' from any of the following. Mark all that apply.	E.172
E.274.	D3: The practice currently has recognition as a medical home from any source	E.173
E.275.	D3: The practice currently has recognition as a medical home from more than one source ...	E.173
F.1.	CPC patient survey rounds and fielding dates	F.3

F.2.	Sample size requirements—from NCQA guidelines for practice site sampling based on number of clinicians at site.....	F.4
F.3.	Attributed Medicare FFS beneficiary survey sample and response rates for each of the four rounds of patient surveys.....	F.7
F.4.	CPC patient survey questions used in Chapter 7 and sources	F.9
F.5.	Predicted percentage of Medicare FFS beneficiaries giving the best response to questions in the five CAHPS composites, 2013-2016 (percentages unless otherwise indicated).....	F.16
F.6.	Predicted percentage of Medicare FFS beneficiaries giving the best response to patient experience questions not in the composite measures, 2013-2016 (percentages unless otherwise indicated)	F.19
F.7a.	Predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices combined giving the best response by whether their practice is in a health care system, 2016.....	F.23
F.7b.	Predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices combined giving the best response by whether their 2012 HCC score was below or above the sample median, 2016	F.24
F.7c.	Predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices combined giving the best response by the size of their practice, 2016.....	F.25
F.8.	Predicted standardized mean responses (0 to 1) for composite measures and the questions in the composite measures, 2013-2016	F.26
F.9.	Predicted standardized mean response (0 to 1) to questions not in the composite measures, 2013-2016	F.28
G.1.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Arkansas.....	G.7
G.2.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Arkansas.....	G.13
G.3.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Colorado	G.17
G.4.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Colorado	G.23
G.5.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New Jersey.....	G.27
G.6.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New Jersey.....	G.33

G.7.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New York	G.37
G.8.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New York	G.43
G.9.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Ohio/Kentucky	G.47
G.10.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Ohio/Kentucky	G.53
G.11.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oklahoma	G.57
G.12.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oklahoma	G.63
G.13.	Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oregon.....	G.67
G.14.	Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oregon.....	G.73
G.15.	Number of unique beneficiaries in the analysis, by region, and by outcome measure	G.77
H.1.	Factors and data sources for selecting comparison regions	H.4
H.2.	Eligibility criteria for CPC practices	H.6
H.3.	Number of potential comparison practices in CPC and comparison regions	H.7
H.4.	Propensity score matching variables and data sources	H.11
H.5.	Matching results for CPC practices in Arkansas with comparison group practices from nonselected applicants in Arkansas and external region practices in Tennessee	H.12
H.6.	Matching results for CPC practices in Colorado with Comparison group practices from nonselected applicants in Colorado and external region practices in Kansas, New Mexico, and Utah	H.14
H.7.	Matching results for CPC practices in New Jersey with comparison group practices from nonselected applicants in New Jersey and New York and external region practices in western and central New York and Connecticut.....	H.16
H.8.	Matching results for CPC practices in New York (Capital District-Hudson Valley region) with comparison group practices from nonselected applicants in New York and New Jersey and external region practices in Connecticut and New York	H.18

H.9.	Matching results for CPC practices in Ohio/Kentucky (Cincinnati-Dayton region) with comparison group practices from nonselected applicants and external region practices in Ohio.....	H.20
H.10.	Matching results for CPC practices in Oklahoma (Greater Tulsa Region) with comparison group practices from nonselected applicants and external region practices in Oklahoma.....	H.22
H.11.	Matching results for CPC practices in Oregon with comparison group practices from nonselected applicants in Oregon and external region practices in Idaho and Washington	H.24
H.12.	Matching details and diagnostics	H.26
I.1.	Time period (year) definitions for the annual impact analysis: an illustration up to the fourth intervention year	I.3
I.2.	CPC and comparison group means for outcomes based on the DD analysis in Equation (1): a stylized representation.....	I.5
I.3.	Beneficiary- and practice-level control variables for the DD regressions	I.7
I.4.	Medicare claims-based outcome measures for the fourth annual report to CMS	I.11
I.5.	Primary care physician health care financing administration specialty codes	I.12
I.6.	Specialty physician health care financing administration specialty codes	I.12
I.7.	CPT codes to define office-based E&M visits	I.15
I.8.	Variance decomposition of CPC Bayesian impact analysis model	I.17

APPENDIX FIGURES

A.1.	CPC diagram.....	A.3
C.1.	Care management fee payments from Medicare and other payers, by region and program year.....	C.4
C.2.	Percentage of practices that reported attending Milestone action groups in 2015 and rapid-cycle action groups in 2016	C.8

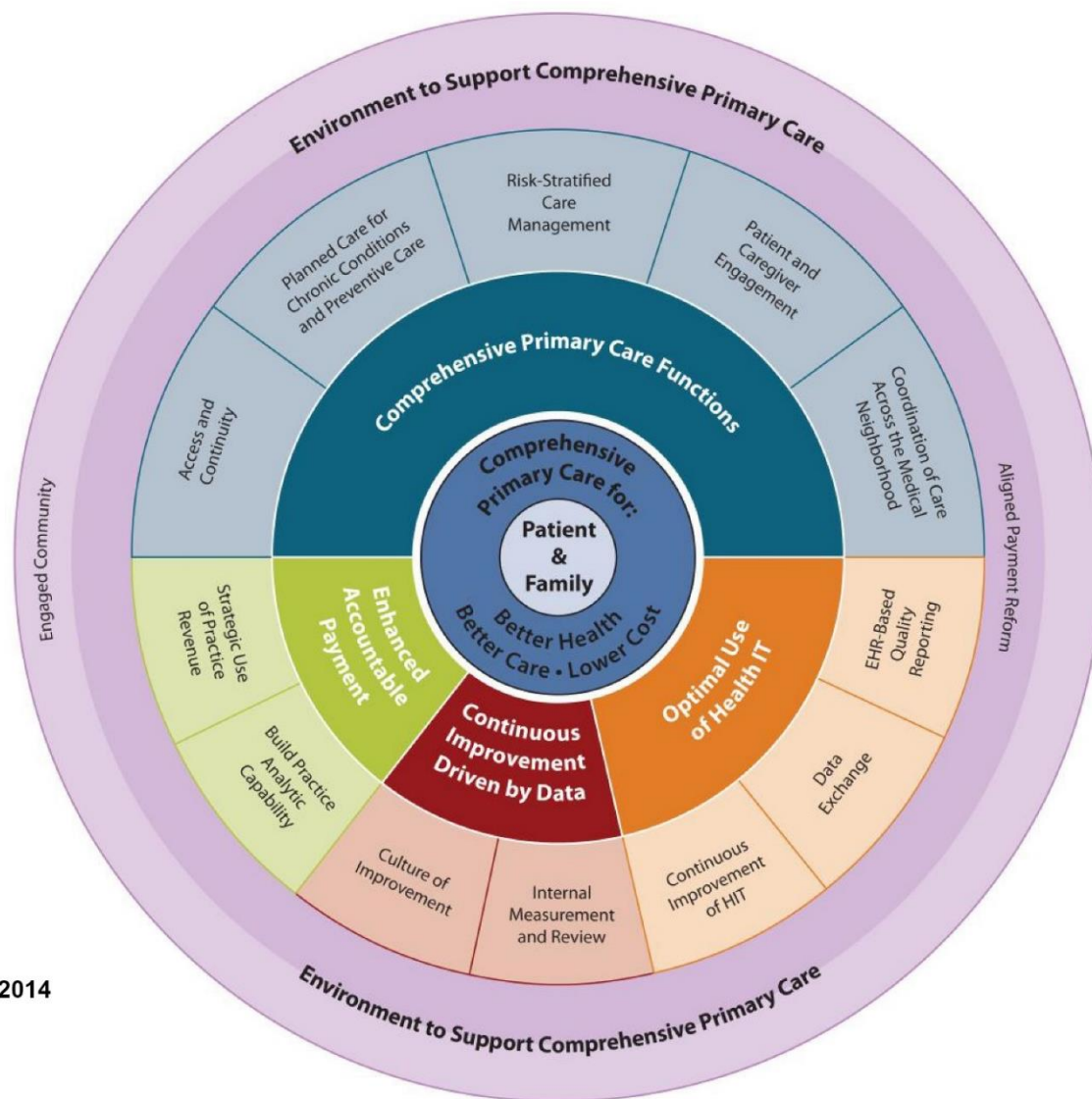
APPENDIX A:

CPC DRIVER DIAGRAM AND MILESTONE REQUIREMENTS

This page has been left blank for double-sided copying.

CPC focused on helping practices implement five key functions in their delivery of care: (1) access and continuity, (2) planned chronic and preventive care, (3) risk-stratified care management, (4) patient and caregiver engagement, and (5) coordination of care across the medical neighborhood. CMS specified a series of Milestones to help practices implement these functions, and it updated the requirements for each Milestone annually to build on practices’ progress in the prior year. CMS assessed how the practices were delivering care and required them to meet the Milestone requirements to remain in the program. Figure A.1 presents the CPC driver diagram, and Table A.1 details the requirements for each of the nine Milestones for each of the four program years.

Figure A.1. CPC diagram



October 2014

Table A.1. CPC Milestones

Milestone	2013	2014	2015	2016
I. Budget	Complete an annual budget or forecast with projected new CPC Initiative practice revenue flow and plan for anticipated practice expenses associated with practice change (practices can submit their own budgets with defined domains, or build off of a template provided by the Innovation Center). This is due to the Innovation Center within 3 months of enrollment.	<ul style="list-style-type: none"> a. Record actual CPC expenditures and CPC revenue from program year 1. b. Complete an annotated annual budget forecast with projected new CPC Initiative practice revenue flow and plan for anticipated practice expenses associated with practice change in program year 2. This information will be due Q1 of program year 2. 	<ul style="list-style-type: none"> a. Record actual CPC expenditures from PY 2014. b. Complete an annotated annual budget with projected CPC initiative practice revenue flow and actual revenue/expenses from PY 2014. This information will be due Q1 of PY 2015. 	<ul style="list-style-type: none"> a. Record actual CPC expenditures from PY 2015. b. Complete an annotated annual budget with projected CPC initiative practice revenue flow and actual revenue/expenses from PY 2015. This information will be due Q1 of PY 2016.
II. Care Management for High Risk Patients	<p>Provide information about care management of high risk patients:</p> <ul style="list-style-type: none"> a. Indicate the methodology used to assign a risk status to every empanelled patient. (“Empanelled” means that all attributed patients have a designated provider/ care team within the practice and that systems are in place to produce reports based on provider/care team). <i>The methodology can use a global risk score or a set of risk indicators (e.g. number of medications, problems, ER/hospitalization use, or a systematic assessment of psychosocial complexity).</i> b. Establish and track a baseline metric for percent assignment of risk status and proportion of population in each risk category. c. Provide practice-based care management capabilities and indicate the following: 	<ul style="list-style-type: none"> a. Maintain at least 95% empanelment to provider and care teams. b. Continue to risk stratify all patients, achieving risk stratification of at least 75% of empanelled patients. c. Provide care management to at least 80% of highest risk patients (those that are clinically unstable, in transition, and/or otherwise need active, ongoing, intensive care management). d. Implement one or more of the following three specific care management strategies for patients in higher risk cohorts (beginning with those at highest risk): <ul style="list-style-type: none"> 1) Integration of behavioral health; 2) Self-management support for at least 3 high risk conditions; 3) Medication management and review. 	<ul style="list-style-type: none"> a. Maintain at least 95% empanelment to provider and care teams. b. Continue to risk stratify all patients, maintaining risk stratification of at least 75% of empanelled patients. c. Using available data on the needs of the practice population and the strengths and weaknesses of the chosen risk stratification methodology, review – and if needed, refine – the methodology being used to assign a risk status to every empanelled patient. d. Provide care management resources to the population identified as most likely to benefit from those services. Focus on patients identified by the practice’s risk stratification methodology to be high risk or with rapidly rising risk (e.g. those that are clinically unstable, in transition, and/or are high utilizers of services) and likely to benefit from active, ongoing, longitudinal care management and those patients not otherwise at high risk who are identified by a triggering event (e.g. transition of care or new diagnosis) as requiring episodic care management for a limited period of time. 	<ul style="list-style-type: none"> a. Maintain at least 95% empanelment to provider and care teams. b. Continue to risk stratify all patients, maintaining risk stratification of at least 75% of empanelled patients. c. Using available data on the needs of the practice population and the strengths and weaknesses of the chosen risk stratification methodology, review – and if needed, refine – the methodology being used to assign a risk status to every empanelled patient. d. Provide care management resources to the population identified as most likely to benefit from those services. Focus on patients identified by the practice’s risk stratification methodology to be high risk or with rapidly rising risk (e.g. those that are clinically unstable, in transition, and/or are high utilizers of services) and likely to benefit from active, ongoing, longitudinal care management and those patients not otherwise at high risk who are identified by a triggering event (e.g. transition of care or new diagnosis) as requiring episodic care management for a limited period of time.

Table A.1 (continued)

Milestone	2013	2014	2015	2016
II. Care Management... (continued)	<ul style="list-style-type: none"> Who provides care management services Process for determining who receives care management services Examples of care management plans on request. Be able to generate lists of patients by risk category 		<p>e. Maintain the implementation of, and further refine, one or more of the following three specific advanced care management strategies for patients in higher risk cohorts (beginning with those at highest risk):</p> <ol style="list-style-type: none"> 1) Integration of behavioral health; 2) Self-management support for at least 3 high risk conditions; 3) Medication management and review. 	<p>e. Provide information about the care plans that are used for both longitudinal care management and episodic care management.</p> <p>f. Maintain the implementation of, and further refine, one of the following three specific advanced care management strategies for patients in higher risk cohorts (beginning with those at highest risk):</p> <ol style="list-style-type: none"> 1) Integration of behavioral health; 2) Self-management support for at least 3 high risk conditions; 3) Medication management and review. <p>g. Specify what changes the practice is making to implement the other two specific advanced care management strategies for patients in higher risk cohorts (beginning with those at highest risk).</p>
	III. Access and Continuity	<p>Provide and attest to 24 hour, 7 days a week patient access to nurse or practitioner who has real-time access to practice's medical record for patient advice and to inform care by other professionals.</p>	<p>a. Attest that patients continue to have 24 hour/7 day a week access to a care team practitioner who has real-time access to the electronic medical record.</p> <p>b. Enhance access by implementing at least one asynchronous form of communication (e.g., patient portal, email, text messaging) and make a commitment for a timely response.</p>	<p>a. Attest that patients continue to have 24 hour/7 day a week access to a care team practitioner who has real-time access to the electronic medical record.</p> <p>b. Continue to implement at least one asynchronous form of communication (e.g., patient portal, email, text messaging) and make a commitment to responding to patients within a specific time.</p> <p>c. Measure visit continuity by empanelled patients to providers in the practice.</p>

Table A.1 (continued)

Milestone	2013	2014	2015	2016
IV. Patient Experience	<p>Assess and improve patient experience of care by selecting at least one of the following:</p> <p>a. Provide at least 2 quarters of focused survey data based on at least one CG-CAHPS domain chosen by the practice after review of results from the initial CG-CAHPS survey (https://www.cahps.ahrq.gov/Surveys-Guidance/CG.aspx) results done under this Initiative.</p> <p>b. Provide evidence of guidance from a patient and family advisory council that meets at least quarterly, along with specific discussion of how this feedback was used to change practice workflow or policy. A description of a patient and family advisory council can be found at https://www.cahps.ahrq.gov/Quality-Improvement/Improvement-Guide/Browse-Interventions/Customer-Service/Listening-Posts/Advisory-Councils.aspx</p>	<p>a. Continue year 1 efforts by conducting surveys and/or meetings with a Patient and Family Advisory Council (PFAC).</p> <ul style="list-style-type: none"> • Option A: Conduct practice-based survey monthly. • Option B: PFAC that meets quarterly. • Option C: Office based surveys administered quarterly and PFAC convened semi-annually. <p>b. Develop communication(s) to patients about the specific changes your practice is implementing (e.g. a pamphlet or posters). The communications should explain the medical care and services at your practice (e.g. new access options, patient portals and access to health information, care management, care coordination, etc.) This is not marketing materials for CPC and should not list the CPC milestones, the change package, or contain the CMS logo. The communication should indicate how patients can help inform these changes (e.g., through surveys, the Patient and Family Advisory Council, or other mechanisms).</p>	<p>a. Continue PY 2013 and PY 2014 efforts by conducting surveys and/or meetings with a Patient and Family Advisory Council (PFAC).</p> <ul style="list-style-type: none"> • Option A: Conduct practice-based survey monthly. • Option B: PFAC that meets quarterly. • Option C: Office-based surveys administered quarterly and PFAC convened periodically. <p>b. Specify the changes to the practice that have occurred during each reporting period as a result of, or influenced by, practice survey/PFAC activities.</p> <p>c. Continue to communicate to patients (either electronically, on posters, via pamphlets or similar) about the specific changes the practice is implementing as a result of the survey or PFAC.</p>	<p>a. Continue efforts in previous program years by conducting surveys and/or meetings with a Patient and Family Advisory Council (PFAC).</p> <ul style="list-style-type: none"> • Option A: Conduct practice-based survey monthly. • Option B: PFAC that meets quarterly. • Option C: Office-based surveys administered quarterly and PFAC convened periodically. <p>b. Specify the changes to the practice that have occurred during each reporting period as a result of, or influenced by, practice survey/PFAC activities.</p> <p>c. Continue to communicate to patients (either electronically, on posters, via pamphlets or similar) about the specific changes the practice is implementing as a result of the survey or PFAC.</p>

Table A.1 (continued)

Milestone	2013	2014	2015	2016
V. Quality Improvement	At least quarterly, generate and review practice- or provider-based reports with a minimum of one quality measure and one utilization measure. These two measures may be derived from the list of measures that practices will be reporting to the Innovation Center for purposes of calculating a quality score for shared savings distribution, or the practice may choose any NQF endorsed measures based on clinical importance and/or improvement potential.	<ol style="list-style-type: none"> Report the EHR clinical quality measures required by CPC for your region. Provide panel (provider or care team) reports on at least three measures at least quarterly to support improvement in care. 	<ol style="list-style-type: none"> Continue to perform continuous quality improvement using EHR CQM data on at least 3 such measures, at both the practice and panel level, at least quarterly. Review quarterly at least one payer data feedback report (CMS Practice Feedback Report, other payers' data reports, or an aggregated report where available) to identify: <ul style="list-style-type: none"> A high cost area A practice strategy to reduce cost in this area while maintaining or improving quality 	<ol style="list-style-type: none"> Continue to perform continuous quality improvement using EHR CQM data on at least 3 such measures, at both the practice and panel level, at least quarterly. Review quarterly at least one payer data feedback report (CMS Practice Feedback Report, other payers' data reports, or an aggregated report where available) to identify: <ul style="list-style-type: none"> A high cost or utilization area A practice strategy to reduce cost or utilization in this area.
VI. Care Coordination Across the Medical Neighborhood	<p>Demonstrate active engagement and care coordination across the medical neighborhood by creating and reporting a measurement – with numerator and denominator data – to assess impact and guide improvement in one of the following areas.</p> <ol style="list-style-type: none"> Notification of ED visit in timely fashion. Practice medication reconciliation process completed within 72 hours of hospital discharge. Notification of admission and clinical information exchange at the time of admission. Notification of discharge, clinical information exchange, and care transition management at hospital discharge. Information exchange between primary care and specialty care related to referrals to specialty care. 	<p>Select two of the three options below, building on your Year 1 activities:</p> <ol style="list-style-type: none"> Track % of patients with ED visits who received a follow up phone call within one week. Contact at least 75% of patients who were hospitalized in target hospital(s), within 72 hours. Enact care compacts/ collaborative agreements with at least 2 groups of high-volume specialists in different specialties to improve transitions of care. 	<p>Select two of the three options below, building on your PY 2013 and 2014 activities:</p> <ol style="list-style-type: none"> Track % of patients with ED visits who received a follow up phone call within one week. Contact at least 75% of patients who were hospitalized in target hospital(s), within 72 hours or 2 business days. Maintain or enact care compacts/collaborative agreements with at least 2 groups of high-volume specialists in different specialties to improve transitions of care. 	<p>Select two of the three options below, building on your activities in previous program years:</p> <ol style="list-style-type: none"> Track % of patients with ED visits who received a follow up phone call within one week. Contact at least 75% of patients who were hospitalized in target hospital(s), within 72 hours or 2 business days. Maintain or enact care compacts/ collaborative agreements with at least 2 groups of high-volume specialists in different specialties to improve transitions of care.

Table A.1 (continued)

Milestone	2013	2014	2015	2016
VI. Care Coordination... (continued)	The milestone for Year 1 is to select and report on the measurement (this reporting is not related to the reporting required for shared savings in Year 2). In Year 2, the practice will need to describe activities they undertook to improve the results.			
VII. Shared Decision Making	Identify a priority condition, decision, or test that would benefit from shared decision making and the use of a decision aid. Make a decision aid available to appropriate patients and generate a metric for the proportion of patients who received the decision aid for this priority area. Information about shared decision making is available at https://www.cahps.ahrq.gov/Quality-Improvement/Improvement-Guide/Browse-Interventions/Communication/Share d-Decision-Making.aspx	<ol style="list-style-type: none"> Implement shared decision making tools or aids in two health conditions, decisions or tests as component of shared decision-making. Generate a metric for the proportion of patients who received the decision aid, OR Provide quarterly counts on run charts of patients receiving the decision aids and show growth in use of the aids. 	<ol style="list-style-type: none"> Use at least three decision aids to support shared decision making in preference-sensitive care. Track use of the aids using one of the following methods: <ol style="list-style-type: none"> A metric tracking the proportion of patients eligible for the decision aid who receive the decision aid; OR Quarterly counts of patients receiving individual aids. 	<ol style="list-style-type: none"> Use at least three decision aids to support shared decision making in preference-sensitive care. Track use of the aids using one of the following methods: <ol style="list-style-type: none"> A metric tracking the proportion of patients eligible for the decision aid who receive the decision aid; OR Quarterly counts of patients receiving individual aids.
VIII. Participate in Learning Collaborative	Participate in the market-based learning collaborative and share knowledge, tools, and expertise with other practices in the market as indicated by: <ol style="list-style-type: none"> Attendance at three face-to-face meetings annually and in web-based meetings at least monthly. Sharing of materials or resources on the collaboration site. Reporting on the Innovation Center's on-line Collaboration Site of at least 6 key measures that are of importance to the practice and which will be used to guide active testing of changes in the practice. 	<ol style="list-style-type: none"> Participate in all three all-day CPC learning sessions in your region. Participate in one learning webinar per month. Contribute a minimum of one document or experiential story to the CPC Collaboration Website. Fully engage and cooperate with the Regional Learning Faculty, including by providing regular status information as requested, for the purposes of monitoring progress towards Milestones and/or for the purposes of providing support to meet the Milestones. As a contractor for CMS, the faculty are bound by confidentiality agreements. 	<ol style="list-style-type: none"> Participate in all CPC learning sessions in your region. Participate in at least one of the following Advanced Primary Care Action Groups: <ul style="list-style-type: none"> Integration of behavioral health Medication management Self-management support. Fully engage and cooperate with the Regional Learning Faculty, including by providing regular status information as requested, for the purposes of monitoring progress towards Milestones and/or for the purposes of providing support to meet the Milestones. As a contractor for CMS, the faculty is bound by confidentiality agreements. 	<ol style="list-style-type: none"> Participate in all CPC learning sessions in your region. Fully engage and cooperate with the Regional Learning Faculty, including by providing regular status information as requested, for the purposes of monitoring progress towards Milestones and/or for the purposes of providing support to meet the Milestones. As a contractor for CMS, the faculty is bound by confidentiality agreements.

A.8

Table A.1 (continued)

Milestone	2013	2014	2015	2016
VIII. Participate... (continued)	These may include measures required for patient experience, risk status assignment, care coordination, etc., as described above.			
IX. Health Information Technology	Attest to the requirements for Stage 1 of Meaningful Use for the EHR Incentive Programs (for practitioners participating in the Medicaid EHR Incentive Program, adopting, implementing, or upgrading certified EHR technology is not sufficient, the practitioner must attest to Stage 1).	<ul style="list-style-type: none"> a. All eligible professionals in the practice successfully attest to Meaningful Use in accordance with the requirements of the Meaningful Use program. b. Upgrade EHR technology to the 2014 edition ONC Certification. c. Identify the care settings/providers for which the practice has the ability to exchange health information electronically. 	Attest that each Eligible Professional within the practice is engaged with, and working towards, attestation for Stage II of Meaningful Use in the timelines set by the Meaningful Use program.	Attest that each Eligible Professional within the practice is engaged with, and working towards, attestation for Stage II of Meaningful Use in the timelines set by the Meaningful Use program.

Updated December 8, 2015.

This page has been left blank for double-sided copying.

APPENDIX B:

**NUMBER OF PRACTICES, CLINICIANS, PAYERS, AND PATIENTS
PARTICIPATING IN CPC**

This page has been left blank for double-sided copying.

Table B.1. Number of practices, clinicians, payers, and patients participating in CPC, total and by region

	All regions	Arkansas	Colorado	New Jersey	New York: Capital District-Hudson Valley region	Ohio/ Kentucky: Cincinnati-Dayton region	Oklahoma: Greater Tulsa region	Oregon
Payers^a								
At start (fall 2012)	39	4	8	4	5	10	3	5
December 2013	37	4	9	4	4	8	3	5
December 2014	37	4	9	4	4	8	3	5
December 2015	36	4	8	4	4	8	3	5
December 2016	36	4	8	4	4	8	3	5
Changes in payer counts between October 2012 and December 2016								
Added ^b	1	0	1	0	0	0	0	0
Withdrew ^c	3	0	1	0	0	2	0	0
Payer merged with another CPC payer (subtracting a payer from total count) ^d	1	0	0	0	1	0	0	0
Practices								
October 2012	502	69	74	72	75	75	68	69
March 2013 (analysis sample)	497	69	74	70	74	75	68	67
December 2013	492	65	74	70	75	75	66	67
December 2014	479	61	71	68	74	75	63	67
December 2015 ^e	444	57	69	54	63	75	61	65
December 2016	439	57	67	53	63	75	60	64
Changes in practice counts between October 2012 and December 2016								
Practice terminated	9	2	0	3	1	0	3	0
Practice withdrew ^e	56	10	9	17	11	0	3	6
Practice split into two practices (adding a practice to total count)	5	0	2	1	1	0	0	1
Practice merged with another CPC practice (subtracting a practice from total count)	3	0	0	0	1	0	2	0
Clinicians (physicians, nurse practitioners, physician assistants)^f								
October 2012	2,172	262	332	254	286	264	265	509
March 2013	2,183	261	351	252	290	268	264	497
December 2013	2,158	248	359	246	300	265	236	504
December 2014	2,200	232	354	253	307	282	219	553
December 2015 ^e	2,135	230	363	192	271	289	233	557
December 2016	2,159	233	366	201	276	295	237	551

Table B.1 (continued)

	All regions	Arkansas	Colorado	New Jersey	New York: Capital District-Hudson Valley region	Ohio/ Kentucky: Cincinnati-Dayton region	Oklahoma: Greater Tulsa region	Oregon
Patients								
Medicare FFS beneficiaries								
March 2013	313,950	54,661	41,890	41,643	39,171	44,486	43,740	48,359
December 2013	326,100	56,947	44,875	42,999	40,316	44,385	46,401	50,177
December 2014	337,617	56,468	49,326	45,348	41,285	45,372	47,259	52,559
December 2015	329,270	51,183	48,516	43,288	42,296	45,636	45,733	52,618
December 2016	320,713	49,043	48,617	37,165	39,341	47,523	46,099	52,925
Other attributed patients (from participating payers other than Medicare FFS) ^{g,h}								
December 2013	887,846							
December 2014	807,734	100,458	141,403	96,188	158,348	140,992	85,201	85,144
December 2015	824,081	132,253	139,867	88,133	146,351	136,080	86,938	94,459
December 2016	805,980	107,089	143,962	74,779	104,819	207,868	75,230	92,234
Other, nonattributed patients served by practices								
December 2013	1,330,326	174,351	218,970	172,261	129,880	210,144	170,557	254,163
December 2014	1,655,617	165,204	200,094	305,285	166,538	162,608	263,122	392,766
December 2015	1,692,744	177,713	265,035	163,521	191,550	192,869	259,942	442,114
December 2016	1,926,966	152,624	215,641	515,179	152,300	295,042	208,886	387,294
Total patients served by CPC practices (Medicare FFS beneficiaries, other attributed patients, and nonattributed patients) ^{g,h}								
December 2013	2,544,272							
December 2014	2,800,968	322,130	390,823	446,821	366,171	348,972	395,582	530,469
December 2015	2,846,095	361,149	453,418	294,942	380,197	374,585	392,613	589,191
December 2016	3,053,659	308,756	408,220	627,123	296,460	550,432	330,215	532,453

Source: Payer information comes from Mathematica's tracking of payer participation; practice, clinician, and attributed Medicare FFS beneficiary information comes from CMS's implementation contractor's tracking database; other attributed patients (from other payers) and other nonattributed patients are identified based on information supplied by practices during the Milestone 1 budget-reconciliation process.

^a Some payers are participating in more than one region, so there are fewer unique payers than reported in this table.

^b Aetna joined the Colorado region on October 1, 2013.

^c In the Ohio/Kentucky region, Amerigroup withdrew as of July 1, 2013, after it lost its Medicaid managed care contract in Ohio. In the fourth quarter of 2013, HealthSpan, a payer in the Ohio/Kentucky region with few attributed patients in CPC, withdrew from CPC. On December 31, 2015, Colorado Access, a payer in the Colorado region with few attributed patients in CPC, withdrew from CPC after discontinuing its Medicare Advantage line of business.

^d In the New York region, MVP acquired Hudson Health Plan in September 2013. Both plans participated in CPC before the acquisition; thus, the change subtracted one payer from the total count.

^e One New York practice withdrew from CPC in 2016 because its participation in the initiative resulted in issues for its larger system's participation in the Value-Based Payment Modifier and Physician Quality Reporting System. To solve the issue, CMS backdated the practice's withdrawal to December 31, 2015, and recouped CPC payments the practice received in 2016.

Table B.1 (continued)

^f Clinicians include all physicians, nurse practitioners, and physician assistants with national provider identification numbers.

^g Because of the varied sources of this information, these data should be considered only rough estimates of attributed non-Medicare patients. Depending on payer and region, lines of business may include commercial, Medicare Advantage, Medicaid FFS, Medicaid managed care, Children's Health Insurance Program, self-insured/administrative services only, and federal employee products.

^h Regional estimates for attributed patients were not calculated for 2013.

FFS = fee-for-service.

This page has been left blank for double-sided copying.

APPENDIX C:

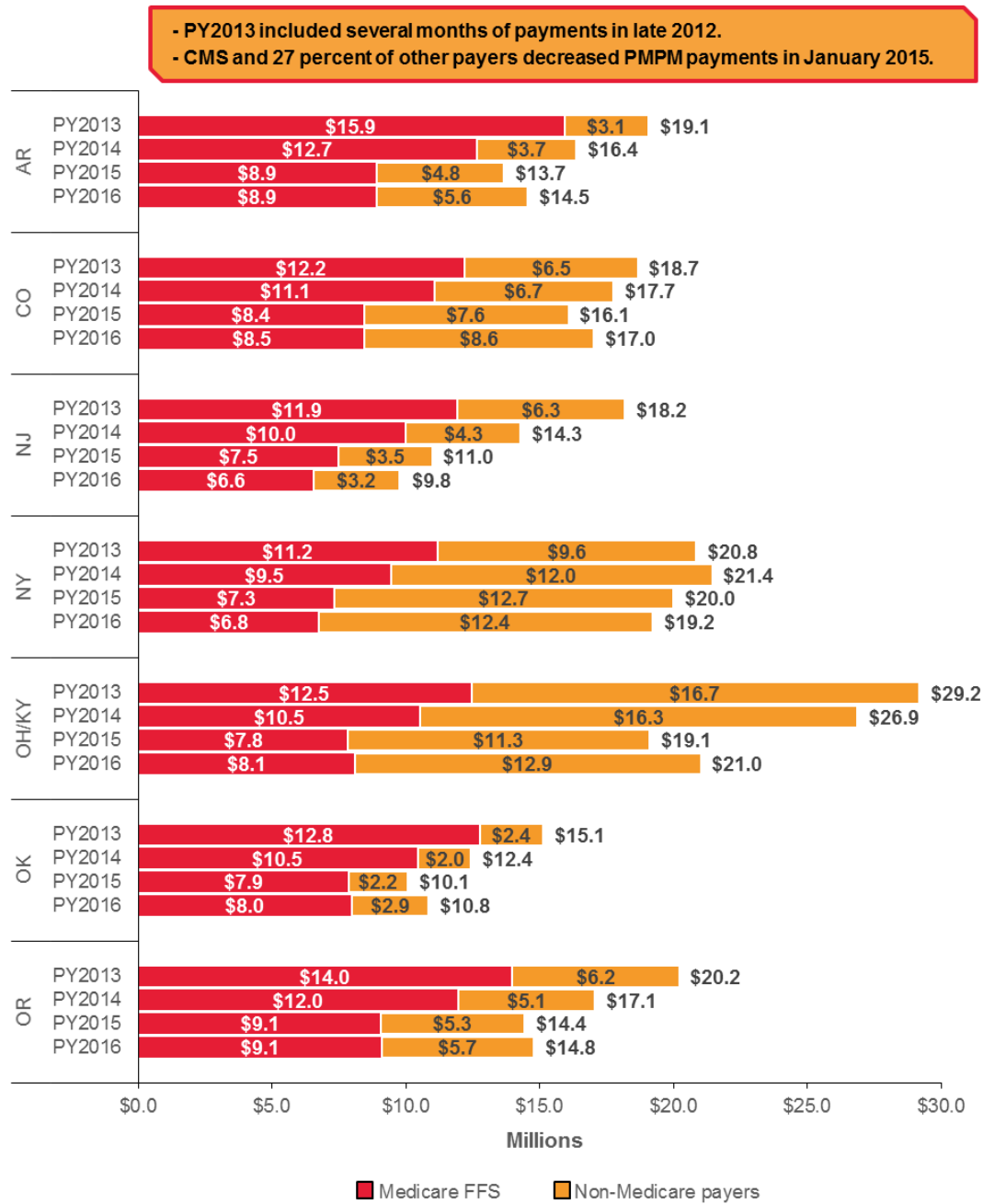
**DETAILS ON PAYMENTS, DATA FEEDBACK, AND LEARNING CMS AND OTHER
PAYERS PROVIDED TO CPC PRACTICES**

This page has been left blank for double-sided copying.

CMS and participating payers provided CPC practices with payments, data feedback, and learning supports to facilitate practice transformation. In Chapter 3, we describe the payment, data feedback and learning supports provided to CPC practices by CMS and other payers. In this appendix, we provide additional details.

- Figure C.1 presents total CPC payments from Medicare and other payers for each of the four program years for each of the seven regions.
- Tables C.1-C.2 detail the data aggregation management infrastructure for each region and the content and structure of the aggregated reports.
- Table C.3 details how often practices reviewed data feedback from Medicare FFS and other payers and their perspectives on the feedback by region.
- Figure C.2 presents the percentage of practices that reported attending action groups in 2015 and 2016.
- Table C.4 details how often practices interacted with regional learning faculty (RLF) and practices' ratings of RLF by region.

Figure C.1. Care management fee payments from Medicare and other payers, by region and program year



Source: Practice-reported budget data analyzed by Mathematica for PY2013 and PY2016 and Bland and Associates for PY2014 and PY2015.

Notes: Reported differences between years should be interpreted with caution, given this analysis was based on practice-reported data and there were slight differences in the methods underlying the calculation of these statistics. Medicare FFS payments in PY2013 were higher than in PY2014 and PY2015, because PY2013 included several months of CMS payments in late 2012. CMS defines CPC's first program year (PY2013) as October 2012 through December 2013. CMS began making CPC care management payments in October 2012 for the Arkansas and Oklahoma regions, and in November 2012 for all other regions. Other participating payers began making such payments on or before February 1, 2013.

FFS = fee-for-service; PMPM = per member per month; PY=program year.

Table C.1. Features of the management infrastructure for data aggregation in Colorado, Ohio/Kentucky and Oklahoma, as of summer 2016

	Colorado	Ohio/Kentucky	Oklahoma ^a
Data aggregation vendor			
Selected data aggregator	Best Doctors (originally Rise Health, which was acquired by Best Doctors)	HealthBridge and OnPoint	MyHealth Access Network and Verinovum
Organization type	Data technology and analytics firm (for profit)	HealthBridge: Health information exchange (nonprofit) OnPoint: Payer claims data warehouse (nonprofit)	Health information exchange (nonprofit)
Date of vendor selection	First quarter 2014	Third quarter 2014	Fall 2012 (at outset of CPC)
Date when aggregated data first shared with practices	June 2015	January 2016	November 2016 ^b
Date when Medicare claims data first included in reports	September 2016	June 2016	November 2016
Financing and governance structure			
Participating non-Medicare payers	6 of 8 payers	8 of 8 payers	3 of 3 payers
Allocation of data aggregation costs	100 percent paid by payers, with each payer paying the proportion of its total attributed patients. ^c Practices did not contribute funding.	50 percent paid by payers, 50 percent paid by practices, with each payer paying the proportion of its total attributed patients to make up half and practices doing the same. ^d	100 percent paid by payers, with each payer paying the proportion of its total attributed patients. Practices did not contribute funding.
Governance structure	Data governance panel composed of payers participating in data aggregation; meets monthly to provide management and operational guidance and oversight Data work group composed mainly of payers and practice leaders; meets monthly to provide direction on data sharing, reporting, and use of the tool	Data work group composed of payers, practices, and data aggregators; meets monthly to discuss project timelines, data submission, and aggregated report formats	Data aggregation issues discussed at three types of meetings: (1) MyHealth clinical quality meetings held monthly and attended by payers and health systems (2) CPC payer meetings held monthly and attended by CPC payers (3) Multistakeholder meetings held quarterly and attended by CPC payers, systems, employers, and consumer groups

Source: Mathematica interviews with CPC payers and data aggregation vendors in June through August 2016.

^a Information reported for Oklahoma is based on payers' plans for the first aggregated report, which was released following our interviews.

^b In PY2015, payers in Oklahoma began providing practices with reports that aggregated practice-level data (as opposed to patient-level claims data).

^c One payer did not directly pay for data aggregation but was contributing to other general CPC project management costs.

^d One practice in Ohio/Kentucky is not contributing to data aggregation efforts.

Table C.2. Features of aggregated reports in Colorado, Ohio/Kentucky, and Oklahoma as of summer 2016

	Colorado	Ohio/ Kentucky	Oklahoma ^a
Practice report structure			
Data source	Claims	Claims	Claims
Frequency of data updates	Quarterly	Quarterly	Quarterly
Data lag (relative to release of each aggregated report)	~3 to 6 months	~8 months	~6 months
Distribution method	Interactive portal	Excel 2013 Power Pivot	Interactive portal
Practice's performance can be displayed			
Patient level	Yes	Yes	Yes
Physician level	Yes	Yes	No
Practice level	Yes	Yes	Yes
Across several sites in a single practice or system	Yes	No	Yes
Payer level	Yes	Yes	Yes
Performance benchmarks			
Aggregated regional performance	Yes	Yes	Yes
Performance of other individual practices (with practices agreeing to share unblinded data)	No	No	Yes
Frequency of data updates	Quarterly	Quarterly	Quarterly
Practice report content and measures			
Cost and use measures ^b	Yes	Yes	Yes
Quality measures	Yes	Yes	Yes
Other measures and information	<ul style="list-style-type: none"> Detailed claims information so that clinicians can identify other providers who have delivered services to their patients Measures of the amount of care an attributed patient receives from the clinician and practice 	<ul style="list-style-type: none"> List of patients recently hospitalized or with an ED visit, principal diagnosis, date of service, and name of hospital 	None
Training practices			
Training provided to practices in use of aggregated data	Group learning sessions and on-site practice support to be provided	Group learning sessions and on-site practice support to be provided	On-site practice support to be provided

Source: Mathematica interviews with CPC payers and data aggregation vendors in June through August 2016.

^a Information reported for Oklahoma is based on payers' plans for the first aggregated report, which was released following our interviews.

^b For this table, we report admissions and readmissions as utilization measures.

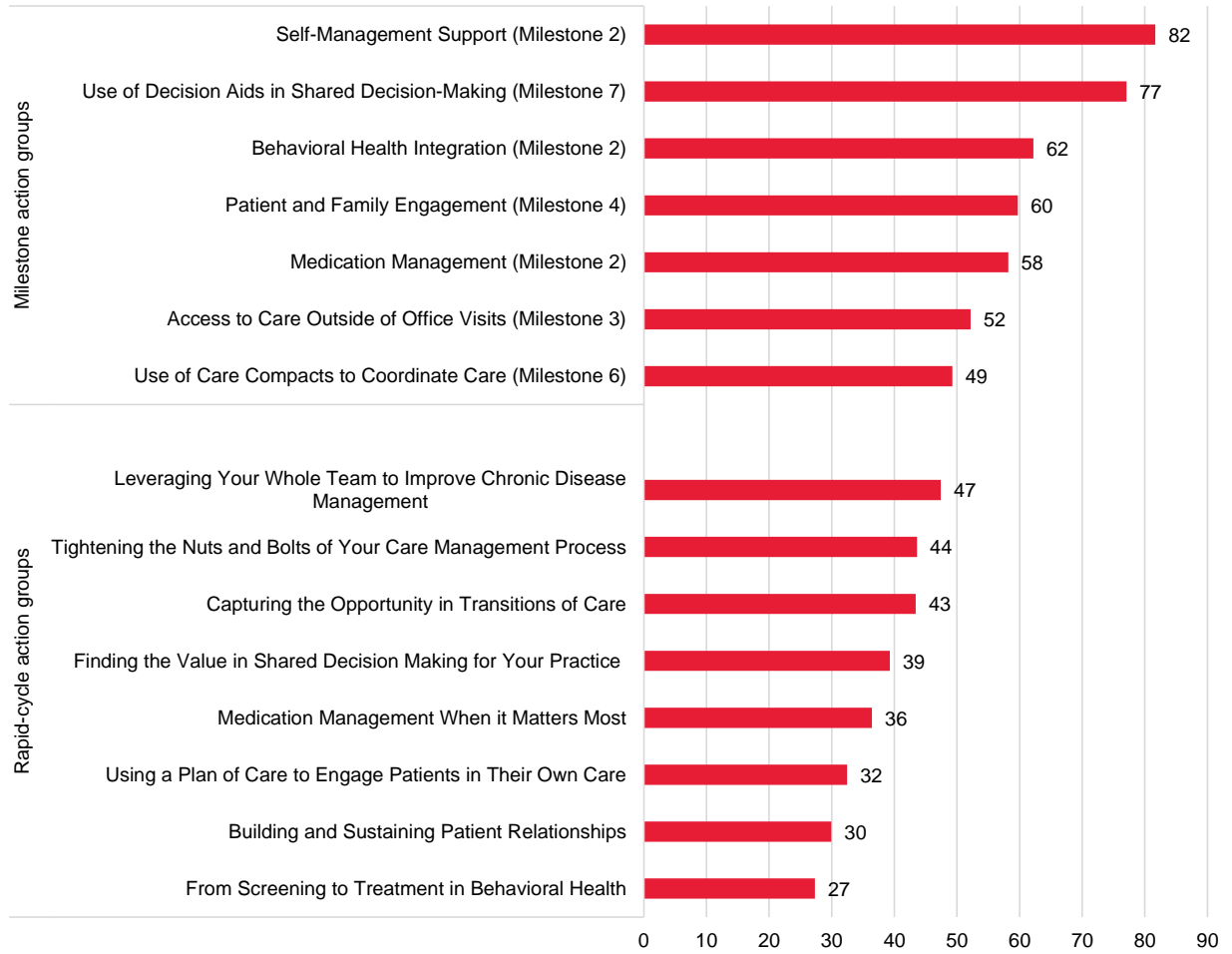
ED = emergency department.

Table C.3. Practices' review of CPC data feedback and their perspectives of that feedback in 2014, 2015, and 2016, CPC-wide and by region

	CPC-wide			AR			CO			NJ			NY			OH/KY			OK			OR		
	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16
Percentage of practices that reported receiving and reviewing reports most or all of the time																								
Medicare FFS feedback reports	73	78	81	74	75	85	79	82	80	77	82	87	82	76	88	70	85	86	64	90	88	64	53	55
Medicare FFS patient-level data files	46	53	58	34	59	57	47	65	49	58	53	56	66	45	62	36	44	69	32	63	77	52	44	38
Other payer feedback reports	48	65	60	31	51	60	49	64	67	57	71	67	70	64	72	38	75	59	34	82	58	55	44	40
Other payer patient-level data files	38	41	41	18	35	33	29	40	47	62	51	44	61	52	53	34	38	38	21	47	45	39	26	25
Of those that reported reviewing the data files, percentage of practices that reported CPC data feedback was very useful																								
Medicare FFS feedback reports	21	34	35	14	35	45	23	41	48	40	39	38	24	43	46	4	34	13	21	33	45	25	15	15
Medicare FFS patient-level data files	14	28	30	17	40	43	8	33	17	27	26	34	14	27	33	4	11	13	13	56	67	20	8	11
Other payer feedback reports	12	25	24	3	25	31	12	22	16	33	27	32	18	18	29	3	29	8	6	42	40	10	12	23
Other payer patient-level data files	14	21	21	8	15	22	6	17	9	40	34	37	11	23	28	5	10	8	23	40	34	9	9	17

Source: CPC practice survey, administered April through July 2014 and April through August 2015 and 2016.
FFS = fee-for-service.

Figure C.2. Percentage of practices that reported attending Milestone action groups in 2015 and rapid-cycle action groups in 2016



Source: CPC practice survey, administered April through August 2015 and 2016.

Table C.4. Practices' communication with and ratings of RLF in 2014, 2015, and 2016, CPC-wide and by region

	CPC-wide			AR			CO			NJ			NY			OH/KY			OK			OR		
	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16	'14	'15	'16
Frequency of communication between practice and RLF (percentage)																								
Daily	2	1	1	2	3	0	4	1	0	3	2	0	0	0	2	3	0	1	2	0	2	2	0	0
Weekly	38	27	28	23	28	35	50	38	36	28	17	8	33	21	9	56	57	49	49	7	43	23	14	9
Monthly	45	51	42	70	47	51	43	60	49	52	72	62	53	51	36	31	16	21	28	74	41	38	46	43
Less than monthly	14	20	25	5	22	14	1	1	14	16	10	30	11	27	50	9	27	8	20	18	15	35	39	43
Never	2	1	5	0	0	0	1	0	0	0	0	0	3	1	3	1	0	20	2	2	0	3	2	5
If practice and RLF communicate with each other, number of times RLF provided direct support to practice in past six months (median)																								
	6	5	4	9	4	6	15	14	9	6	6	5	4	3	2	2	2	2	6	3	4	3	3	2
Practices' overall rating of the quality of all services from RLF in meeting this practice site's CPC-related needs (percentage)																								
Excellent	37	37	40	43	33	53	62	56	51	59	60	42	23	27	14	32	39	49	17	20	33	24	20	37
Very good	35	35	35	28	37	32	28	28	38	21	25	38	38	37	34	45	47	32	40	21	48	39	46	25
Good	21	23	21	28	23	11	7	13	10	18	12	19	26	33	43	17	13	12	30	49	16	21	23	32
Fair	6	5	4	2	7	4	1	3	0	2	3	2	14	3	9	4	1	4	7	8	3	12	11	6
Poor	2	0	1	0	0	2	1	1	1	0	0	0	0	0	0	1	0	3	7	2	0	3	0	0

Source: CPC practice survey, administered April through July 2014 and April through August 2015 and 2016.

RLF = regional learning faculty.

This page has been left blank for double-sided copying.

APPENDIX D:

PRACTICE SURVEY METHODS AND DATA TABLES

This page has been left blank for double-sided copying.

This appendix describes the practice survey used to assess approaches to care delivery, practice characteristics, and practices' experience in CPC. It details survey fielding, including timing, mode, incentives; sampling and weighting; survey content; analytic methods including statistical estimation and testing procedures; and data tables.

A. Fielding details

Timing. Mathematica administered four rounds of a survey of practices to CPC practices, and three rounds to comparison practices. The first survey (fielded within the first two months of the initiative) was not administered to comparison practices because we had not yet selected them at the time of survey administration. The second survey was fielded about 1.5 years into the initiative, with the third and fourth surveys fielded each of the following years. The fourth survey was fielded four to eight months before the end of the four-year initiative (Table D.1).

Table D.1. CPC practice survey rounds and fielding dates

Survey round (year)	Fielding period	Months after CPC began	Groups participating
1 (2012)	October – December 2012	0 – 2	CPC practices ¹
2 (2014)	April – July 2014	18 – 21	CPC and comparison practices
3 (2015)	April – August 2015	30 – 34	CPC and comparison practices
4 (2016)	April – August 2016	42 – 46	CPC and comparison practices

¹ The 2012 survey was not administered to comparison practices because we had not yet selected them at the time of survey administration.

Survey mode, length, incentives, and reminders. We administered the survey primarily as a web survey (in 2012, we fielded the survey as an electronic Adobe fillable PDF). The survey was designed to take CPC practices 60 minutes to complete, and comparison practices 30 minutes. We fielded the comparison survey two weeks earlier than the CPC survey. We based this difference in fielding periods between the CPC and comparison practices on the expectation that CPC practices would be more likely to respond quickly, as they are program participants, whereas comparison practices, with no connection to the CPC initiative, would require additional follow-up efforts to obtain a high response rate. In general, we received surveys from all CPC practices within about 16 weeks, and gave comparison practices 19 weeks to complete the survey.

Telligen, who fielded the survey to CPC practices, emailed the questionnaires to CPC practice managers. The survey instructions encouraged the practice manager to discuss the survey with the practice team to provide responses that reflected a consensus view of the practice staff. In addition to the emailed invitation, Telligen sent email reminders every two weeks, and conducted telephone follow-up with CPC practices who had not completed the survey in the first 10 to 13 weeks depending on the survey round. Similarly, we emailed invitations and bi-weekly reminders to comparison practices for which we had email addresses (about 50 to 75 percent of comparison practices depending on the survey round). For comparison practices for which we did not have an email address, we mailed the survey invitation with the web survey log-in information. To further increase comparison practice response rates, we mailed all comparison practices a hard copy questionnaire if they did not respond to the survey by the fifth week. We also conducted up to two reminder calls to non-responding comparison practices and we offered

an individualized summary report of their answers compared to similar practices in their area. In the 2014 survey round we also sent a fillable pdf version and fielded a shorter, critical-items-only version to encourage comparison practices to respond; we did not send a short version survey in the subsequent rounds.

Participating CPC practices were required to respond to the survey as a condition of participation and were not compensated for responding. Comparison practices and practices that were no longer participating in CPC were not required to respond and were offered an incentive to complete the survey. Comparison and withdrawn practices received \$100 for responding to the 2014 practice survey. In the 2015 and 2016 rounds of the practice survey, comparison and withdrawn practices received \$125 for responding in the first four weeks of the fielding period; we then reduced compensation to \$75. During the final five and nine weeks of the fielding period for the 2015 and 2016 surveys, respectively, we offered additional payments of as much as \$50 to comparison practices that were particularly important matches to the initiative practices.

Sampling methods. Each year, we fielded surveys to all practices that were participating in CPC as of December 7, 2012, regardless of whether they were still participating in the initiative. Practices that were once in CPC but subsequently withdrew or were terminated from CPC were invited to complete the comparison version of the survey. Beginning in 2014 with the second survey round, we also sent surveys to all of the practices that were selected to serve as comparisons for the evaluation.

Weighting. We applied practice-level weights to the comparison practices each round. Comparison practices' weights were equal to the product of a matching weight (to ensure that the set of comparison practices matched to a given CPC practice had the same combined weight as that CPC practice) and a nonresponse weight to adjust for potential bias that can arise if survey nonresponse is not random. We used propensity score matching to select one or more comparison practices that were similar to CPC practices in terms of key practice characteristics (whether the practice had a clinician that was a Medicare Meaningful Electronic Health Record User, whether it had patient-centered medical home recognition, number of clinicians; percentage of practice clinicians with a primary care specialty, practice ownership, whether practice is a critical access hospital); geographic characteristics (county household income, Medicare advantage penetration rate, whether in a medically underserved area); characteristics of the practices' attributed Medicare beneficiaries (number of attributed Medicare beneficiaries, percentage dual eligible, demographic characteristics, chronic conditions, Hierarchical Condition Category score, original Medicare entitlement reason); service use (number of inpatient hospital visits, emergency department visits, and physician visits); and expenditures of the practice's attributed Medicare fee-for-service beneficiaries. The matching weights adjust for the number of comparison practices that were matched to each CPC practice.

Sample sizes and response rates. Our analysis includes 471 of the original 498 CPC practices. These 471 practices responded to all four survey rounds. Depending on the round, it also includes a cross-sectional sample of 340 to 423 of the roughly 850 comparison practices. Reflecting the requirement that CPC practices complete the practice survey as a condition of their participation in CPC, we received responses from 100 percent of CPC practices and 40 to 48 percent of the comparison practices, depending on the survey round. Some comparison practices completed the survey in multiple rounds. Thirty-six percent of comparison practices

responded to all three rounds that were fielded to comparison practices, and another 29 percent responded to two of the three rounds. Table D.2 provides the numbers of practices we surveyed, the number of practices that completed the surveys, and response rates for CPC and comparison practices for each survey round.

Table D.2. Sample and response rates for CPC and comparison practices, by survey round

	Round 1 (2012)	Round 2 (2014)	Round 3 (2015)	Round 4 (2016)
Number of practices sent surveys				
CPC	498	483	476	445
Withdrawn/Terminated CPC	0	12	21	50
Comparison	n.a.	881	864 ²	849 ³
Number of practices that completed surveys				
CPC	498	483	476	445
Withdrawn/Terminated CPC	0	10	13	28 ⁴
Comparison	n.a.	423 ¹	340	358
Response rate (percentages)				
CPC	100	100.0	100.0	100.0
Withdrawn/Terminated CPC	n.a.	83.3	61.9	56.0
Comparison	n.a.	48.0	39.6	42.2

¹ In 2014, we received completed surveys from 423 comparison practices: 354 practices completed the full survey (40 percent response rate) and 69 completed a short-form version of the survey. We administered a short-form version of the practice survey to comparison practices that did not respond by June 2014. We did not administer a short-form survey in the subsequent survey rounds.

² Between 2014 and 2015, we dropped 17 comparison practices from our sample because they had either closed or were determined ineligible (for example, because the practice no longer had any attributed patients or primary care providers).

³ Between 2015 and 2016, we dropped 15 comparison practices from our sample because they had either closed or were determined ineligible because they no longer had any attributed patients or primary care providers.

⁴ Two of these 28 practices did not respond to the Round 3 survey, and therefore we did not include them in our analysis sample, which we limited to CPC practices that completed all four rounds of the survey. Our analysis sample of CPC practices consists of 445 participating and 26 withdrawn or terminated practices.

n.a. = not applicable.

Survey nonresponse adjustment. All CPC practices were required by CMS to complete the survey as a condition of participating in the initiative. To account for survey nonresponse among the comparison practices, we calculated and applied nonresponse weights to comparison practice responses. To calculate the nonresponse weights, we used a decision tree plus stepwise regression process to select the variables that best predicted survey response. The nonresponse weights accounted for ownership; number of clinicians; whether the practice is in the same region as or an external region to the CPC practice(s) to which it is matched; median household income of the practice's county; the distribution of ages of the attributed Medicare beneficiaries; percentage Hispanic; and percentage Native American.

Question (item) nonresponse. Survey respondents were not required to answer each question in the survey. Across the care delivery questions in the survey, the rate of question nonresponse among survey respondents varied from less than one percent to three percent for both CPC and comparison practices. Due to this low rate, we did not adjust for question

nonresponse and instead calculated results only among question respondents, weighted by survey nonresponse weights described previously.

B. Survey content

The practice survey consists of four sections. Section A contains a Practice Assessment Module modified from the Patient-Centered Medical Home-Assessment (PCMH-A) (Safety Net Medical Home Initiative 2010; Daniel et al. 2013), which asks CPC and comparison practices to rate their approaches to delivering aspects of primary care. Section B asks CPC and comparison practices about the practice infrastructure, finances, and involvement in other initiatives. Only CPC practices are asked to complete Sections C and D. Section C asks CPC practices to evaluate their experiences with CPC's regional learning faculty, technical assistance received from participating payers, and assistance and coaching received from other sources such as non-participating payers, the practice's healthcare system, and other practices. Section D asks CPC practices to rate their experience and satisfaction with the CPC initiative and funding from CPC. We report results on practice responses to sections A and B for 2012, 2014, 2015, and 2016. We only provide information for the later three years of data collection (2014, 2015, and 2016) for sections C and D, as we first included these sections in the 2014 survey.

The modified PCMH-A (M-PCMH-A) contains 41 questions based on a version of the PCMH-A tool that we adapted for the CPC evaluation to capture practices' approaches to care delivery. The survey module contains six domains. For each question, practices rated their own performance on a scale of 1 to 12, divided into four levels, where 1 signified least advanced approaches to delivering care and 12 signified the best approaches to delivering care. The scale shows four boxes—1 to 3, 4 to 6, 7 to 9, and 10 to 12—that identify better and worse approaches to delivering care, representing achievement of certain criteria in each box. For example, for a question on tracking patient referrals to specialists, a response of 1 to 3 means that tracking is not generally done, 4 to 6 means that tracking is done sometimes, 7 to 9 means that tracking is done consistently for high-risk patients, and 10 to 12 means that tracking is done consistently for all patients.

Tracking of patient referrals to specialists is not generally done.			... is sometimes done.			... is consistently done for high-risk patients, such as patients referred for a particular clinical concern.			... is consistently done for all patients.		
	1	2	3	4	5	6	7	8	9	10	11	12

Based on a factor analysis (described below) we included 37 questions in seven domains (Table D.3). Although the seven domains do not line up one-to-one with the CPC Milestones or functions, nor comprehensively cover them, these domains are fairly consistent with CPC Milestones and functions, cover care processes and supports that prior studies suggest are important to primary care redesign, and can be used to track each practice's progress in transforming care.¹ The survey was designed to identify practices' learning needs and, for the

¹ The first survey round's module contained 41 questions based on a modified version of the Patient-Centered Medical Home-Assessment (PCMH-A) instrument (v.1.3) developed by the MacColl Center for Health Care

evaluation, to be integrated with data from surveys of clinicians, staff, and patients, Milestone data submissions, and qualitative information to more comprehensively depict how CPC supports were delivered to practices and how practices transformed care delivery.

Table D.3. M-PCMH-A domains and topics

Domain	Number of questions	Topics
Continuity of care	2	<ul style="list-style-type: none"> • Patient assignment to specific provider, and use of that assignment to schedule and monitor supply and demand • The extent to which patients are encouraged to, and usually see their own provider and practice team
Access to care	3	<ul style="list-style-type: none"> • Flexibility of appointment systems for different-length and same-day visits • Asynchronous communication with practice team including patients' preferred mode • Patient after-hours access to a coverage team or the practice, and availability of patient's EHR
Planned care for chronic conditions and preventive care	6	<ul style="list-style-type: none"> • Availability and proactive use of patient registries by practice teams • Availability and use of evidence-based guidelines in care • Focus of patient visits on acute and planned care needs • The extent to which evidence-based reminders to providers are specific to the individual patient encounter • Extent of role of nonphysician practice team members in providing clinical care • Extent to which medication reconciliation occurs regularly and is documented in the patient's medical record
Risk-stratified care management	3	<ul style="list-style-type: none"> • Degree to which a standard method or tool to stratify patients by risk level is used and guides care delivery • The provision of clinical care management services for high-risk patients by care managers integrated into the practice team • The availability of registry or panel-level data to assess and manage care for practice populations
Patient and caregiver engagement	6	<ul style="list-style-type: none"> • Assessment and incorporation of patient and family preferences in planning and organizing care • How systematically practice teams involve patients in decision making • Extent to which patient comprehension of written and verbal communication is assessed and accomplished • The type of self-management support provided by members of the practice team • How test results and care plans are communicated to patients • The use of feedback from a patient and family caregiver council to guide practice improvements

Innovation to measure transformation progress in safety net clinics in eight change concept areas established as key components of PCMH (http://www.improvingchroniccare.org/index.php?p=PCMH_Change_Concepts&s=261). Our version contains 26 items from the 35 items in the PCMH-A. To more closely measure the areas of CPC focus, we changed the order and domain assignment for some of these questions. Because the PCMH-A did not cover all the aspects of primary care delivery relevant to the CPC evaluation, we included 15 questions that we either developed ourselves or adapted from their questions. We dropped three of these questions from the second survey round, and dropped one question from the scores because it was not correlated with any other questions, leaving 37 questions. We describe the development of the modified PCMH-A and the sources for all questions in Table 1 of Poznyak et al. 2017.

Table D.3 (continued)

Domain	Number of questions	Topics
Coordination of care across the medical neighborhood	10	<ul style="list-style-type: none"> • The extent of tracking of patient referrals to specialists • The collaborative development of care plans with patients and families that include self-management and clinical management goals, and are used to guide care • The extent to which referral relationships with a range of specialists are formalized • Availability of behavioral health services for patients • The ease of obtaining referrals for specialty care, hospital care, or supportive community-based resources and exchange of relevant information with other providers before and after the patient visit • Practice staff follow-up with patients following ED/hospital visits • How practices link patients to supportive community-based resources • Transmission of patient information when this practice refers patients to hospitals, EDs, and specialists • The timeliness of information received from hospitals and EDs following a patient's visit • The proportion of patients for whom the practice knows the total cost to payers for medical care
Continuous improvement driven by data	7	<ul style="list-style-type: none"> • Practice's use of quality improvement (QI) activities that are continuous and based on proven improvement strategies • Extent to which QI activities are conducted by practice teams supported by a QI infrastructure with meaningful involvement of patients and their families • The availability of comprehensive performance measures to practice site and individual providers • Availability of feedback reports on patient care experiences, and care processes or outcomes to practice site, individual providers, practice teams, patients, other teams, and external agencies • The availability of staff, resources, and time for QI activities • The extent to which hiring and training processes focus on improving care and creating patient-centered care • The extent to which responsibility for conducting QI activities is shared by staff and is made explicit through protected time to meet and specific resources to engage in QI

Table D.4. lists each question in the practice survey and its source.

Table D.4. Questions in the CPC practice survey and sources

2016 question number	Question text	Source	Modified from source
Comprehensive Primary Care Functions			
A1	<p>Patients...</p> <ul style="list-style-type: none"> ...are not assigned to specific provider panels ...are assigned to specific provider panels but panel assignments are not routinely used by the practice for administrative or other purposes ...are assigned to specific provider panels and panel assignments are routinely used by the practice mainly for scheduling purposes ...are assigned to specific provider panels and panel assignments are routinely used for scheduling purposes and are continuously monitored to balance supply and demand 	PCMH-A, Version 1.1	No
A2	<p>Patients are encouraged to see their paneled provider and practice team...</p> <ul style="list-style-type: none"> ...only at the patient's request ...by the practice team, but it is not a priority in appointment scheduling ...by the practice team and it is a priority in appointment scheduling, but patients commonly see other providers because of limited availability or other issues ...by the practice team and it is a priority in appointment scheduling, and patients usually see their own provider or practice team 	PCMH-A, Version 1.1	Yes
A2_NA	Check here if patients are not assigned to specific provider panels	MPR	n.a.
A3	<p>Appointment systems...</p> <ul style="list-style-type: none"> ...are limited to a single office visit type ...provide some flexibility in scheduling different visit lengths ...provide flexibility and include capacity for same day visits ...are flexible and can accommodate customized visit lengths, same day visits, scheduled follow-up, and multiple provider visits 	PCMH-A, Version 1.1	No
A4	<p>Communicating with the practice team (physician, physician assistant (PA), nurse practitioner (NP), nurse) through email, text messaging, or accessing a patient portal...</p> <ul style="list-style-type: none"> ...is not regularly available to practice patients. ...is available on a limited basis for practice patients. ...is generally available at a patient's request. ...is generally available, and patients are regularly asked about their communication preferences for email, text messaging, or use of a patient portal. 	MPR	n.a.
A5	<p>Scheduled phone visits or group visits (with multiple patients) with the physician, PA, NP, or nurse...</p> <ul style="list-style-type: none"> ...are not regularly available to practice patients. ...are available on a limited basis for practice patients. ...are generally available at a patient's request. ...are generally available, and patients are regularly asked about their preferences for phone or group visits when they seek care. 	MPR	n.a.
A6	<p>Patient after-hour access (24 hours, 7 days a week) to a physician, PA/NP, or nurse...</p> <ul style="list-style-type: none"> ...is not available or limited to an answering machine. ...is available from a coverage arrangement (e.g., answering service) that does not offer a standardized communication protocol back to the practice for urgent problems. ...is provided by a coverage arrangement (e.g., answering service) that shares necessary patient data with and provides a summary to the practice. ...is available via the patient's choice of email or phone directly with the practice team or a provider who has real-time access to the patient's electronic medical record. 	PCMH-A, Version 1.1	Yes
A7	<p>Registries –either integrated in the EHR or free-standing- on individual patients...</p> <ul style="list-style-type: none"> ...are not available to practice teams for pre-visit planning or patient outreach ...are available to practice teams but are not routinely used for pre-visit planning or patient outreach ...are available to practice teams and routinely used for pre-visit planning or patient outreach, but only for a limited number of diseases and risk states ...are available to practice teams and routinely used for pre-visit planning and patient outreach, across a comprehensive set of diseases and risk states 	PCMH-A, Version 1.1	Yes

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
A8	Comprehensive, evidence-based guidelines on prevention or chronic illness treatment... ...are not readily available in practice. ...are available to the team but do not influence care. ...are available to the team and are integrated into care protocols and/or reminders. ...guide the creation of individual-level patient reports for care teams to use at the time of visits.	PCMH-A, Version 1.1	Yes
A9	Visits... ...largely focus on acute problems of patient ...are organized around acute problems but with attention to ongoing illness and prevention needs if time permits ...are organized around acute problems but with attention to ongoing illness and prevention needs if time permits. The practice also uses subpopulation reports to proactively call groups of patients in for planned care visits ...are organized to address both acute and planned care needs. Tailored guideline-based information is used in team huddles to ensure all outstanding patient needs are met at each encounter	PCMH-A, Version 1.1	No
A10	Reminders to providers... ...are not available. ...include general notification of the existence of a chronic illness, but do not describe needed services at time of encounter. ...include general notification of the existence of a chronic illness and needed services for populations of patients through periodic reporting. ...include general notification of the existence of a chronic illness and specific information for the team about guideline adherence at the time of individual patient encounters.	TransforMED Online Assessment Tool	Yes
A11	Non-physician practice team members... ...play a limited role in providing clinical care ...are primarily tasked with managing patient flow and triage ...provide some clinical services such as assessment or self management support ...perform key clinical service roles that match their abilities and credentials	PCMH-A, Version 1.1	No
A12	Medication reconciliation... ...is not done ...is intermittently done on an as needed basis ...s regularly done for patients during care transitions and documented in the patient's medical record ...is regularly done for all patients and documented in the patient's medical record	TransforMED Online Assessment Tool	Yes
A13	Notification of patients of their laboratory and radiology results... ...is not generally done ...is sometimes done ...is done consistently for abnormal results and sporadically for normal results ...is consistently done for abnormal as well as normal results	TransforMED Online Assessment Tool	Yes
A14	Tracking of patient referrals to specialists... ...is not generally done ...is sometimes done ...is consistently done for high-risk patients, e.g., patients referred for a particular clinical concern ...is consistently done for all patients	MPR	n.a.
A15	Care plans... ...are not routinely developed or recorded ...are developed and recorded but reflect providers' priorities only ...are developed collaboratively with patients and families and include self-management and clinical goals, but they are not routinely recorded or used to guide subsequent care ...are developed collaboratively, include self-management and clinical management goals, are routinely recorded, and guide care at every subsequent point of service	PCMH-A, Version 1.1	Yes

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
A16	A standard method or tool(s) to stratify patients by risk level... ...is not available ...is available but not consistently used to stratify all patients ...is available and is consistently used to stratify all patients but is inconsistently integrated into all aspects of care delivery ...is available, consistently used to stratify all patients, and is integrated into all aspects of care delivery	MPR	n.a.
A17	Clinical care management services for high-risk patients... ...are not available ...are provided by external care managers with limited connection to the practice ...are provided by external care managers who regularly communicate with the care team ...are systematically provided by care managers functioning as a member of the practice team	PCMH-A, Version 1.1	Yes
A18	Registry or panel-level data... ...are not available to assess or manage care for practice populations ...are available to assess and manage care for practice populations, but only on an ad hoc basis ...are regularly available to assess and manage care for practice populations, but only for a limited number of diseases and risk states ...are regularly available to assess and manage care for practice populations, across a comprehensive set of diseases and risk states	PCMH-A, Version 1.1	No
A19	Assessing patient and family values and preferences... ...is not done ...is done, but not used in planning and organizing care ...is done and providers incorporate it in planning and organizing care on an ad hoc basis ...is systematically done and incorporated in planning and organizing care	PCMH-A, Version 1.1	No
A20	Involving patients in decision-making and care... ...is not a priority ...is accomplished by provision of patient education materials or referrals to classes ...is supported and documented by practice teams ...is systematically supported by practice teams trained in decision making techniques	PCMH-A, Version 1.1	No
A21	Patient comprehension of verbal and written materials... ...is not assessed ...is assessed and accomplished by assuring that materials are at a level and language that patients understand ...is assessed and accomplished by translation services or multi-lingual staff, and assuring that both materials and communications are at a level and language that patients understand. ...is assessed and accomplished by translation services or multi-lingual staff, and training staff in health literacy and communication techniques (such as closing the loop) assuring that patients know what to do to manage conditions at home	PCMH-A, Version 1.1	Yes
A22	Self-management support... ...is limited to the distribution of information (pamphlets, booklets) ...is accomplished by referral to self-management classes or educators ...is provided by goal setting and action planning with members of the practice team ...is provided by members of the practice team trained in patient empowerment and problem-solving methodologies	PCMH-A, Version 1.1	No
A23	Test results and care plans... ...are not communicated to patients ...are communicated to patients based on an ad hoc approach ...is systematically communicated to patients in a way that is convenient to the practice ...is systematically communicated to patients in a variety of ways that are convenient to patients	PCMH-A, Version 1.1	No
A24	Feedback to the practice from patient and family caregiver council... ...is not collected ...is collected on an ad hoc basis but is not regularly incorporated into practice improvements ...is regularly collected (at least quarterly) and incorporated into practice improvements on an ad hoc basis ...is consistently used to guide practice improvements and measure system performance as well as care interactions at the practice level	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
A25	Shared decision making aids used to help patients and providers jointly decide on treatment options... ...are not provided to patients ...are sometimes provided to patients for one or more clinical conditions ...are consistently provided to patients for two or more clinical conditions, but provision is not formally tracked ...are consistently provided to patients for two or more clinical conditions and provision is tracked with run charts or other measures	MPR	n.a.
A26	Referral relationships with medical and surgical specialists... ...are not formalized with referral protocols or practice agreements (also known as care compacts/collaborative agreements) ...are formalized with referral protocols or practice agreements with a few medical and surgical specialist groups ...are formalized with referral protocols or practice agreements with many medical and surgical specialist groups ...are formalized with referral protocols or practice agreements with most or all medical and surgical specialist groups	TransforMED Online Assessment Tool	Yes
A27	Behavioral health (mental health and chemical dependency) services... ...are difficult to obtain reliably ...are available from behavioral health specialists but are neither timely nor convenient ...are available from behavioral health specialists and are generally timely and convenient ...are readily available from behavioral health specialists who are onsite members of the care team or who work in an organization with which the practice has a referral protocol or agreement	PCMH-A, Version 1.1	Yes
A28	Patients in need of specialty care, hospital care, or supportive community-based resources... ...cannot reliably obtain needed referrals to partners with whom the practice has a relationship ...obtain needed referrals to partners with whom the practice has a relationship ...obtain needed referrals to partners with whom the practice has a relationship and relevant information is communicated in advance ...obtain needed referrals to partners with whom the practice has a relationship, relevant information is communicated in advance, and timely follow-up after the visit occurs	PCMH-A, Version 1.1	No
A29	Follow-up by the primary care practice with patients seen in the Emergency Room (ER) or hospital... ...generally does not occur because the information is not available to the primary care team ...occurs only if the ER or hospital alerts the primary care practice ...occurs because the primary care practice makes proactive efforts to identify patients ...is done routinely because the primary care practice has arrangements in place with the ER and hospital to both track these patients and ensure that follow-up is completed within a few days	PCMH-A, Version 1.1	Yes
A30	Linking patients to supportive community-based resources... ...is not done systematically ...is limited to providing patients a list of identified community resources in an accessible format ...is accomplished through a designated staff person or resource responsible for connecting patients with community resources ...is accomplished through active coordination between the health system, community service agencies, and patients and accomplished by a designated staff person	PCMH-A, Version 1.1	No
A31	When this practice refers patients to other providers (e.g. specialists, hospitals, emergency departments), transmission of patient information to other providers... ...is not done consistently ...is sometimes done but does not always contain a complete set of clinical information (e.g., medication list, problem list, allergy list, advance directives) ... is usually done but does not always contain a complete set of clinical information (e.g., medication list, problem list, allergy list, advance directives) ...is consistently done and always contains a complete set of clinical information (e.g., medication list, problem list, allergy list, advance directives)	MPR	n.a.
A32	Receipt of information about our patients from hospitals and emergency departments in my community... ...does not occur consistently ...usually occurs but is often one week or longer after the event ... usually occurs within 72 hours after the event ...consistently occurs in less than 24 hours after the event	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
A33	Timely receipt of information (e.g. visit notes, diagnoses, new medications) about our patients after they visit specialists in my community... ...does not occur consistently for our patients ...occurs for some of our patients ...occurs for most of our patients ...occurs for all of our patients	MPR	n.a.
A34	My practice knows the total cost to payers of medical care... ...for none of our patients ...or some of our patients ...for most of our patients ... for all of our patients	MPR	n.a.
A35	Quality improvement activities... ...are not organized or supported consistently ...are conducted on an ad hoc basis in reaction to specific problems ...are based on a proven improvement strategy in reaction to specific problems ...are based on a proven improvement strategy and used continuously in meeting organizational goals	PCMH-A, Version 1.1	No
A36	Quality improvement (QI) activities are conducted... ...by a centralized committee or department ...by topic specific QI committees ...by all practice teams supported by a QI infrastructure ...by practice teams supported by a QI infrastructure with meaningful involvement of patients and their families	PCMH-A, Version 1.1	Yes
A36_NA	NA, Practice does not conduct QI activities	MPR	n.a.
A37	Performance measures... ...are not available for this practice site ...are available for this practice site, but are limited in scope ...are comprehensive – including clinical, operational, and patient experience measures – and available for this practice site, but not for individual providers ...are comprehensive – including clinical, operational, and patient experience measures – and available for this practice site and individual providers, and fed back to individual providers	PCMH-A, Version 1.1	Yes
A38	Reports of patient care experiences (e.g., CAHPS survey) and care processes or outcomes... ...are not routinely available to practice teams. ...are routinely provided as feedback to practice teams but not reported externally (e.g., to patients, other teams, or external agencies). ...are routinely provided as feedback to practice teams, and reported externally but with team identities masked. ...are routinely provided as feedback to practice teams, and transparently reported externally to patients, other teams, and external agencies.	PCMH-A, Version 1.1	Yes
A39	Staff, resources, and time for quality improvement activities... ...are not readily available in the practice. ...are occasionally available but are limited in scope (due to some deficiencies in staff, resources, or time). ...are generally available and usually at the level needed. ...are all fully available in the practice.	MPR	n.a.
A40	The organization's hiring and training processes... ...focus only on the narrowly defined functions and requirements of each position ...reflect how potential hires will affect the culture and participate in quality improvement activities ...place a priority on the ability of new and existing staff to improve care and create a patient-centered culture ...support and sustain improvements in care through training and incentives focused on rewarding patient centered care	PCMH-A, Version 1.1	No

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
A41	The responsibility for conducting quality improvement activities... ...is not assigned by leadership to any specific group ...is assigned to a group without committed resources ...is assigned to an identified quality improvement group who receives dedicated resources ...is shared by all staff, from leadership to team members, and is made explicit through protected time to meet and specific resources to engage in QI	PCMH-A, Version 1.1	No
Practice Characteristics, Finances, and Participation in Other Initiatives			
B1	Which of the following best describes the medical organization that employs the clinicians (staff who bill for seeing patients) at this practice site?	MPR	n.a
B4a	Please indicate if this practice is affiliated or contracts with each of the following organizations: Independent Practice Association (IPA)	MPR	n.a.
B4b	Please indicate if this practice is affiliated or contracts with each of the following organizations: Physician Hospital Organization (PHO)	MPR	n.a.
B4c	Please indicate if this practice is affiliated or contracts with each of the following organizations: Accountable Care Organization (ACO)	MPR	n.a.
B3	Who owns this practice?	CPC application	Yes
B3_1	Physicians in the practice	CPC application	Yes
B3_2	Non-physician clinicians (nurse practitioners or physician assistants) in the practice	CPC application	Yes
B3_3	Another physician organization	CPC application	Yes
B3_4	Public or private hospital, health system, or foundation owned by a hospital	CPC application	Yes
B3_5	Insurance company, health plan or HMO	CPC application	Yes
B3_6	Medical school or university	CPC application	Yes
B3_7	Other (specify)	CPC application	Yes
B5	Please indicate how much autonomy this practice site has to implement practice-level changes in the following areas without approval from management at the healthcare system or group:	MPR	Yes
B5a	Staff hiring	MPR	n.a.
B5b	Organizational priorities	MPR	n.a.
B5c	Clinical work processes	MPR	n.a.
B5d	Planning for and completion of CPC milestones	MPR	n.a.
B6	What is the total number of different patients seen within the past year by this practice site regardless of type of insurance coverage?	CPC application	Yes
B6a	In the past two years, has your practice ever dismissed a patient from your practice? By dismissing patients, we mean directing patients to leave your practice and seek primary care elsewhere.	MPR	n.a.
B6b	Please indicate the reasons your practice has dismissed patients from your practice in the past two years.	MPR	n.a.
B6b_1	Patient repeatedly missed appointments	MPR	n.a.
B6b_2	Patient repeatedly violated bill payment policies	MPR	n.a.
B6b_3	Patient violated chronic pain/controlled substance policies	MPR	n.a.
B6b_4	Patient was extremely disruptive and/or behaved inappropriately towards clinicians or staff	MPR	n.a.
B6b_5	Patient repeatedly did not follow health care recommendations (such as medication regimens or getting labs done)	MPR	n.a.
B6b_6	Patient repeatedly did not follow recommended lifestyle changes (such as diet, exercise, or smoking cessation)	MPR	n.a.
B6b_7	Patient made frequent visits to the emergency room and/or frequently self-referred to specialists	MPR	n.a.
B6b_8	Other (specify)	MPR	n.a.
B6c	Approximately how many patients has your practice dismissed in the past two years?	MPR	n.a.
B6d	Has your participation in CPC made your practice more or less likely to dismiss patients?	MPR	n.a.
B6e	Why has participation in CPC made your practice more likely to dismiss patients?	MPR	n.a.
B6e_1	Concerns about meeting quality metrics for CPC	MPR	n.a.
B6e_2	Concerns about meeting financial metrics for CPC	MPR	n.a.
B6e_3	Other (specify)	MPR	n.a.
B6f	Why has participation in CPC made your practice less likely to dismiss patients from your practice?	MPR	n.a.
B6g	How often do patients who are receiving care management from your practice get confused or frustrated by phone calls or visits from care managers outside of your practice (for example, from health plans or hospitals)?	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
B8	Is this practice site accepting no, some, most, or all new patients who are insured through Medicare, including Medicare managed care patients?	Community Tracking Study Physician Survey, 2004-2005	Yes.
B9	How are practitioners in this practice site compensated?	TransforMED Online Assessment Tool	yes
B9a_1	Clinician owners (physician/PA/NP): Salary	TransforMED Online Assessment Tool	yes
B9a_2	Clinician owners (physician/PA/NP): Productivity incentives, including profit sharing	TransforMED Online Assessment Tool	yes
B9a_3	Clinician owners (physician/PA/NP): Quality incentives	TransforMED Online Assessment Tool	yes
B9a_4	Clinician owners (physician/PA/NP): Other	TransforMED Online Assessment Tool	yes
B9a_5	Clinician owners (physician/PA/NP): Not applicable, does not have this staff	MPR	n.a.
B9b_1	Non-owner physicians: Salary	TransforMED Online Assessment Tool	yes
B9b_2	Non-owner physicians: Productivity incentives, including profit sharing	TransforMED Online Assessment Tool	yes
B9b_3	Non-owner physicians: Quality incentives	TransforMED Online Assessment Tool	yes
B9b_4	Non-owner physicians: Other	TransforMED Online Assessment Tool	yes
B9b_5	Non-owner physicians: Not applicable, does not have this staff	MPR	n.a.
B9c_1	Non-owner PAs/NPs: Salary	TransforMED Online Assessment Tool	yes
B9c_2	Non-owner PAs/NPs: Productivity incentives, including profit sharing	TransforMED Online Assessment Tool	yes
B9c_3	Non-owner PAs/NPs: Quality incentives	TransforMED Online Assessment Tool	yes
B9c_4	Non-owner PAs/NPs: Other	TransforMED Online Assessment Tool	yes
B9c_5	Non-owner PAs/NPs: Not applicable, does not have this staff	MPR	n.a.
B10	[Other than CPC does/Does] this practice site participate in any of the following initiatives, demonstrations, or pilot programs, and if so, how long has it participated?	CPC application	yes
B10a	The Physician Quality Reporting System (PQRS)	MPR	n.a.
B10b	Health Care Innovation Awards (sponsored by CMS)	CPC application	yes
B10c	Medicare Shared Savings Program (also known as the Medicare ACO Program)	CPC application	yes
B10d	Independence at Home	CPC application	yes
B10e	Pioneer ACO	CPC application	yes
B10f	Meaningful Use/EHR Incentive Program	MPR	n.a.
B10g	Medicaid Health Home	CPC application	yes
B10i	A consortium or collaborative working on quality improvement (for example, Institute for Healthcare Improvement collaborative or EHR users' group) (specify)	MPR	n.a.
B10i	A state or community based quality measures reporting program	MPR	n.a.
B10j	A state or regional health information exchange	MPR	n.a.
B10k	A purchaser sponsored program linking payment to performance or value (such as a bonus payment from an insurer for quality) (specify)	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
B10h	A federally-sponsored shared savings initiative (specify)	MPR	n.a.
B11	Please indicate if the practice currently has recognition as a “medical home” from any of the following. If the practice does not have recognition as a “medical home,” please mark the last box at the bottom of the list.	CPC application	yes
B11_1	National Committee for Quality Assurance (NCQA-PCMH) (specify recognition level)	CPC application	yes
B11_2	The Joint Commission (TJC), previously known as Joint Commission on Accreditation of Healthcare Organizations (JCAHO)	CPC application	yes
B11_3	Accreditation Association for Ambulatory Healthcare (AAAHC-Triple A)	CPC application	yes
B11_4	Utilization Review Accreditation Commission (URAC) (specify recognition level)	CPC application	yes
B11_5	State-based Recognition Program (Specify recognition level)	CPC application	yes
B11_6	Insurance Plan-based Recognition Program	CPC application	yes
B11_7	Other (Specify)	CPC application	yes
B11_8	Does not have recognition as a “medical home”	MPR	n.a.
B12	This question is about the primary role of each staff at this practice site—that is, the job role in which staff work the most hours in a typical week. If a staff member in this practice fits into more than one job role, please place them in the role where they work the most hours. Please count each staff member only once. Number of full-time and part-time staff who work at practice site.	MPR	n.a.
B12a_1	Primary Care Physician (MD or DO)	MPR	n.a.
B12b_1	Specialty Physician	MPR	n.a.
B12c_1	Nurse Practitioner (NP) or Physician Assistant (PA) who bill under their own NPI	MPR	n.a.
B12d_1	Nurse Practitioner (NP) or Physician Assistant (PA) who do not bill under their own NPI	MPR	n.a.
B12e_1	Registered Nurse (RN)	MPR	n.a.
B12f_1	Licensed Practical Nurse (LPN) or Licensed Vocational Nurse (LVN)	MPR	n.a.
B12g_1	Medical Assistant	MPR	n.a.
B12h_1	Receptionist	MPR	n.a.
B12i_1	Practice Supervisor or Practice Manager	MPR	n.a.
B12j_1	Care Manager or Care Coordinator	MPR	n.a.
B12k_1	Community Services Coordinator	MPR	n.a.
B12l_1	Health Educator	MPR	n.a.
B12m_1	Quality Improvement (QI) Specialist	MPR	n.a.
B12n_1	Behavioral Health, Clinical Psychologist, or Social Worker	MPR	n.a.
B12o_1	Physical or Respiratory Therapist	MPR	n.a.
B12p_1	Laboratory or Radiology Technician	MPR	n.a.
B12q_1	Dietitian or Nutritionist	MPR	n.a.
B12r_1	Pharmacist or Pharmacy Technician	MPR	n.a.
B12s_1	Health Information Technologist or EHR Specialist	MPR	n.a.
B12t_1	Accountant or Financial Manager	MPR	n.a.
B12u_1	Billing, coding, administrative assistance, medical records, payroll, data entry/analysis, network administrator	MPR	n.a.
B12v_1	Other (Specify)	MPR	n.a.
B13	Including clinical and non-clinical staff, how did this practice’s staffing changed during 2015?	MPR	n.a.
B13_1	Hired or contracted any staff to fill new roles or functions	MPR	n.a.
B13_2	Moved any existing staff into new roles or functions	MPR	n.a.
B13_3	Hired or contracted any new staff to fill existing roles	MPR	n.a.
B13_4	Moved clinical staff from other practice sites to this practice site	MPR	n.a.
B13_5	Moved non-clinical staff from other practice sites to this practice site	MPR	n.a.
B13_6	Eliminated some existing staff and their roles or functions	MPR	n.a.
B13_7	Other (Specify)	MPR	n.a.
B13_8	Did not make any changes to staffing	MPR	n.a.
B13a	Of the staffing changes you marked in B13, which of these staffing changes were made in response to the CPC initiative?	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
B13a_1	Hired or contracted any staff to fill new roles or functions	MPR	n.a.
B13a_2	Moved any existing staff into new roles or functions	MPR	n.a.
B13a_3	Hired or contracted any new staff to fill existing roles	MPR	n.a.
B13a_4	Moved clinical staff from other practice sites to this practice site	MPR	n.a.
B13a_5	Moved non-clinical staff from other practice sites to this practice site	MPR	n.a.
B13a_6	Eliminated some existing staff and their roles or functions	MPR	n.a.
B13a_7	Other (Specify)	MPR	n.a.
B13a_8	None of these changes to staffing were in response to the CPC initiative	MPR	n.a.
B13b	Care team huddles are informal, brief meetings, typically held before morning and/or afternoon patient appointments, to review the schedule for the day, discuss patient-specific issues, and keep the core clinical team consistently informed. Do any of the care teams at this practice site participate in team huddles?	MPR	n.a.
B14	Does this practice site use an Electronic Health Record (EHR) system for managing patient care?	MPR	n.a.
B15	Do clinicians at this practice site use the e-prescribing functionality of the EHR?	CPC application	Yes
B16	Does this practice use data extracts or reports generated from your EHR to guide quality improvement (QI) efforts?	MPR	n.a.
B16a	Please indicate the type of staff that is responsible for extracting data or generating reports from your EHR to guide quality improvement (QI) efforts for this practice. (Please do not include staff who are responsible for only programming or designing reports and do not extract or generate reports.)	MPR	n.a.
B16a_1	Primary Care Physician (MD or DO)	MPR	n.a.
B16a_2	Nurse Practitioner (NP) or Physician Assistant (PA)	MPR	n.a.
B16a_3	Registered Nurse (RN), Licensed Practical Nurse (LPN), or Licensed Vocational Nurse (LVN)	MPR	n.a.
B16a_4	Medical Assistant	MPR	n.a.
B16a_5	Practice Supervisor or Practice Manager	MPR	n.a.
B16a_6	Care Manager or Care Coordinator	MPR	n.a.
B16a_7	Medical Records Staff	MPR	n.a.
B16a_8	Data Analyst	MPR	n.a.
B16a_9	Quality Improvement (QI) Specialist	MPR	n.a.
B16a_10	Health Information Technologist or EHR Specialist	MPR	n.a.
B16a_11	Other (Specify)	MPR	n.a.
B17	Is this practice site part of a healthcare system or medical group?	MPR	n.a.
B17a	Is patient clinical data shared between this practice site and each of the following provider types?	2012 American Hospital Association Annual Survey	Yes
B17a_a	Local hospitals outside of your healthcare system	2012 American Hospital Association Annual Survey	Yes
B17a_b	Other local medical care practices outside of your healthcare system	2012 American Hospital Association Annual Survey	Yes
B17a_c	Local diagnostic service facilities (lab or imaging) outside of your healthcare system	2012 American Hospital Association Annual Survey	Yes
B17a_d	Local hospitals in your healthcare system	2012 American Hospital Association Annual Survey	Yes
B17a_e	Local medical care practices in your healthcare system	2012 American Hospital Association Annual Survey	Yes

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
B17a_f	Local diagnostic service facilities (lab or imaging) in your healthcare system	2012 American Hospital Association Annual Survey	Yes
B17b	Is patient clinical data shared between this practice and each of the following provider types?	2012 American Hospital Association Annual Survey	Yes
B17b_a	Local hospitals	2012 American Hospital Association Annual Survey	Yes
B17b_b	Other local medical care practices	2012 American Hospital Association Annual Survey	Yes
B17b_c	Local diagnostic service facilities (e.g., lab or imaging)	2012 American Hospital Association Annual Survey	Yes
B18	Please indicate (1) how many times in the past 6 months this practice site received coaching or assistance from staff at each of the following sources on how to improve primary care and (2) how helpful this support was to this practice site in improving primary care.	MPR	n.a.
B18a	Payers/health plans	MPR	n.a.
B18b_1a	Your healthcare system or medical group	MPR	n.a.
B18c_1a	Other local organizations (such as a Quality Improvement Organization or medical society)	MPR	n.a.
B18d_1a	Regional Extension Center	MPR	n.a.
B18e_1a	Other practices outside of your healthcare system or medical group	MPR	n.a.
B18f_1a	Other (Specify)	MPR	n.a.
Practice Learning and Assistance			
C1	Who does the regional learning faculty directly communicate with?	MPR	n.a.
C2	How frequently do this practice and the regional learning faculty communicate with each other?	MPR	n.a.
C3	How many times has the regional learning faculty provided direct support to this practice through meetings at this practice site, coaching (in person, over the phone, or via email), or other direct assistance in the past 6 months?	MPR	n.a.
C3a	Which of the following best describes the direct support that this practice site received from their regional learning faculty in the past 6 months?	MPR	n.a.
C4	Overall, how would you rate the quality of all services from the regional learning faculty in meeting this practice site's CPC-related needs?	MPR	n.a.
C5a	CPC offers assistance to practices in a variety of ways. For each of the following types of assistance that this practice site may have received in the past 6 months, please rate how useful this assistance has been to you and your colleagues in improving primary care.	MPR	n.a.
C5a_a	Practice-to-practice learning	MPR	n.a.
C5a_b	Practice-to-practice learning: In-person coaching at this practice	MPR	n.a.
C5a_c	Webinars	MPR	n.a.
C5a_d	CPC weekly round-up email	MPR	n.a.
C5a_e	In-person meetings for practices and others in CPC	MPR	n.a.
C5a_f	CPC Connect	MPR	n.a.
C5a_g	CPC Web Application	MPR	n.a.
C5b	Action groups, now called "rapid-cycle action groups", are implemented by learning faculty in consultation with CMS, and focus on practice-driven topics to facilitate cross-regional learning. Each rapid-cycle action group involves multiple webinars as well as work that practices are asked to do before the webinar sessions. For each of the following rapid-cycle action groups, please indicate (1) if this practice site participated in any part of the rapid-cycle action group, and (2) how useful it was to this practice site	MPR	n.a.
C5b_a1	Leveraging Your Whole Team to Improve Chronic Disease Management (Sept – Oct 2015)	MPR	n.a.
C5b_b1	Capturing the Opportunity in Transitions of Care (Sept – Oct 2015)	MPR	n.a.
C5b_c1	Tightening the Nuts and Bolts of Your Care Management Process (Sept – Oct 2015)	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
C5b_d1	From Screening to Treatment in Behavioral Health (Sept – Oct 2015)	MPR	n.a.
C5b_e1	Building and Sustaining Patient Relationships: Building the Bond Between the Care Team and Their Panel of Patients (Nov 2015 – Feb 2016)	MPR	n.a.
C5b_f1	Medication Management When it Matters Most (Nov 2015 – Feb 2016)	MPR	n.a.
C5b_g1	A Fresh Look at an Old Idea: Using a Plan of Care to Engage Patients in Their Own Care (Nov 2015 – Feb 2016)	MPR	n.a.
C5b_h1	Finding the Value in Shared Decision Making for Your Practice (Nov 2015 – Feb 2016)	MPR	n.a.
C6	In addition to the support from the regional learning faculty, other payers participating in CPC may provide learning activities and assistance. Please indicate if this practice site received in-person or phone-based coaching or assistance on feedback reports or other quality improvement activities from each of the following payers in the past 6 months. Mark the “Not Working with Payer on CPC” option for payers with which this practice is not working as part of the CPC initiative. 1 - Yes, received assistance from payer 2 - No, did not receive assistance from payer 3 - Not working with payer on CPC	MPR	n.a.
C7	For the payers that you indicated in C6 that provided coaching or assistance, how many times have these other payers participating in CPC provided direct support to this practice through meetings at this practice site, coaching (in person, over the phone, or via email), or other direct assistance in the past 6 months?	MPR	n.a.
C7a	How helpful were these activities in improving primary care at this practice site?	MPR	n.a.
C8	Please indicate (1) how many times in the past 6 months this practice site received coaching or assistance from staff at each of the following sources on how to improve primary care and (2) how helpful this support was to this practice site in improving primary care.	MPR	n.a.
C8a_1a	Payers/health plans not participating in CPC	MPR	n.a.
C8b_1a	Your healthcare system or medical group	MPR	n.a.
C8c_1a	Other local organizations (such as a Quality Improvement Organization or medical society)	MPR	n.a.
C8d_1a	Regional Extension Center	MPR	n.a.
C8e_1a	Other practices outside of your healthcare system or medical group	MPR	n.a.
C8f_1a	Other (Specify)	MPR	n.a.
C9	CPC Support (the CPC help desk managed by Telligen) is the central point of contact for practices' operational inquiries and requests. Please indicate whether you agree or disagree with the following statement about CPC Support. CPC Support provides timely resolution to our practice's operational questions.	MPR	n.a.
Participation in the CPC initiative			
D1	Please indicate (1) how often someone reviews practice feedback reports and patient-level data files for this practice from each of the following payers and (2) how useful these feedback reports and patient-level data files are to this practice in meeting the CPC Milestones and improving primary care.	MPR, CPC Clinician and Staff Survey	Yes
D1a_1	Feedback reports from Medicare Fee-for-Service	MPR, CPC Clinician and Staff Survey	Yes
D1b_1	Feedback reports from other participating payers in CPC	MPR, CPC Clinician and Staff Survey	Yes
D1c_1	Patient-level data files from Medicare Fee-for-Service	MPR, CPC Clinician and Staff Survey	Yes
D1d_1	Patient-level data files from other participating payers in CPC	MPR, CPC Clinician and Staff Survey	Yes
D2	Who reviews the contents of these reports and/or data files?	MPR, CPC Clinician and Staff Survey	Yes
D2a	The PDSA (Plan-Do-Study-Act cycle) is a quality improvement method for testing a change in a process at the practice by planning a change, trying it, observing the results, and then acting on what is learned. Has your practice site heard of PDSA cycles?	MPR	n.a.
D2b	When did your practice first start using PDSA cycles?	MPR	n.a.
D2c	Has this practice site used PDSA cycles in the past year?	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
D3	This question is about the number of patients attributed to this practice for calculation of CPC per member per-month payments. Approximately what proportion of this practice's total patient panel is included in or attributed to CPC? Please include both attributed Medicare Fee-for-Service beneficiaries and patients from other payers participating in CPC.	MPR	n.a.
D4	Overall, considering the number of patients attributed to this practice and the per-member per-month payment amounts, how adequate or inadequate were the CPC payments from each of the following payers relative to the costs of implementing CPC? Mark the "Not Working with Payer on CPC" option for payers that this practice is not working with as part of the CPC initiative.	MPR	n.a.
D4a1	As part of the CPC initiative, Medicare is offering the opportunity for shared savings. The first distribution of CPC Medicare shared savings was announced in 2015. Please indicate how much you agree or disagree with the following statements about your practice's experience with CPC shared savings from Medicare in 2015?	MPR	n.a.
D4a1_a	Our practice understood how Medicare shared savings were calculated	MPR	n.a.
D4a1_b	Our practice felt the methodology used to calculate Medicare shared savings was fair	MPR	n.a.
D4a1_c	Our practice knew what changes were required of us in order to receive the next distribution of Medicare shared savings in 2016	MPR	n.a.
D4a2	If you had to guess today, how likely do you think it is that this practice will receive CPC shared savings from Medicare in 2016?	MPR	n.a.
D4a3	As part of the CPC initiative, some non-Medicare payers are offering the opportunity for shared savings. The first distribution of CPC non-Medicare payer shared savings was announced in 2015. Thinking across all the non-Medicare payers you work with on CPC, please indicate how much you agree or disagree with the following statements about your practice's experience with CPC shared savings from participating non-Medicare payers in 2015?	MPR	n.a.
D4a3_a	Our practice understood how non-Medicare payer shared savings were calculated	MPR	n.a.
D4a3_b	Our practice felt the methodology used to calculate non-Medicare payer shared savings was fair	MPR	n.a.
D4a3_c	Our practice knew what changes were required of us in order to receive the next distribution of non-Medicare payer shared savings in 2016	MPR	n.a.
D4a4	If you had to guess today, how likely do you think it is that this practice will receive CPC shared savings from any participating non-Medicare payer in 2016?	MPR	n.a.
D5	We know that CMS has released details about a new initiative called CPC plus. This question is asking you about the current CPC initiative only. Given this practice's overall experience participating in the CPC initiative – including all the CPC supports such as the assistance/learning activities, feedback reports/data, and payments you've received, as well as the requirements for participation – how likely is it that your practice would participate in CPC again? 1 - Very likely 2 - Somewhat likely 3 - Not very likely 4 - Not at all likely	MPR	n.a.
D5a	We know that CMS has released details about a new initiative called CPC plus. This question is asking you about the current CPC initiative only. What would be the main reasons not to participate in CPC again?	MPR	n.a.
D5a_1	Would rather join an ACO instead of participating in CPC	MPR	n.a.
D5a_2	Reporting requirements in CPC are too burdensome	MPR	n.a.
D5a_3	Milestone requirements in CPC are too burdensome	MPR	n.a.
D5a_4	Insufficient financial incentive to participate in CPC	MPR	n.a.
D5a_5	Insufficient practice staffing to participate in CPC	MPR	n.a.
D5a_6	Difficult to have only some of the practices in our medical group participate	MPR	n.a.
D5a_7	Other (Specify)	MPR	n.a.
D5b	We know that CMS has released details about a new initiative called CPC plus. This question is asking you about the current CPC initiative only. What would be the main reasons to participate in a program like CPC again?	MPR	n.a.
D5b_1	Work on Milestones in CPC helps practice make positive changes and improve patient care	MPR	n.a.

Table D.4 (continued)

2016 question number	Question text	Source	Modified from source
D5b_2	Work on Milestones in CPC improves clinician and staff work satisfaction	MPR	n.a.
D5b_3	Financial support provided in CPC is sufficient to support participation	MPR	n.a.
D5b_4	Learning support provided in CPC is useful	MPR	n.a.
D5b_5	Data/feedback reports provided in CPC are useful	MPR	n.a.
D5b_6	Opportunity to contribute to field of primary care practice transformation	MPR	n.a.
D5b_7	Other (Specify)	MPR	n.a.
D6	How much has participation in the CPC initiative improved the quality of care that this practice currently provides to its patients?	MPR	n.a.
D7	The CPC initiative has promoted a number of changes in the way this practice delivers care. From this practice's perspective, how important does this practice believe the following CPC functions and Milestones are to improving the care it provides to patients?	MPR	n.a.
D7a	Providing round-the-clock access to care to your patients	MPR	n.a.
D7b	Providing continuity of care to your patients	MPR	n.a.
D7c	Planning for the chronic care needs of your patients	MPR	n.a.
D7d	Planning for the preventive care needs of your patients	MPR	n.a.
D7e	Stratifying patients by risk level	MPR	n.a.
D7f	Providing patients with risk-based care management services	MPR	n.a.
D7g	Providing behavioral health services integrated within primary care	MPR	n.a.
D7h	Providing medication management to high risk patients	MPR	n.a.
D7i	Engaging patients and their families in their care	MPR	n.a.
D7j	Collecting and using patient feedback to improve quality of care and patient experience over time	MPR	n.a.
D7k	Making sure that care is coordinated across the medical neighborhood	MPR	n.a.
D7l	Using data feedback on clinical measures to improve quality of care over time	MPR	n.a.
D7m	Using shared decision-making tools so that your providers and your patients work together to arrive at care decisions	MPR	n.a.
D7a	If your practice no longer received CPC funding, how would that affect the level of resources (e.g., staff, time, infrastructure) your practice would be able to devote to each of these areas?	MPR	n.a.
D7a_a	Providing round-the-clock access to care to your patients	MPR	n.a.
D7a_b	Providing continuity of care to your patients	MPR	n.a.
D7a_c	Planning for the chronic care needs of your patients	MPR	n.a.
D7a_d	Planning for the preventive care needs of your patients	MPR	n.a.
D7a_e	Stratifying patients by risk level	MPR	n.a.
D7a_f	Providing patients with risk-based care management services	MPR	n.a.
D7a_g	Providing behavioral health services integrated within primary care	MPR	n.a.
D7a_h	Providing medication management to high risk patients	MPR	n.a.
D7a_i	Engaging patients and their families in their care	MPR	n.a.
D7a_j	Collecting and using patient feedback to improve quality of care and patient experience over time	MPR	n.a.
D7a_k	Making sure that care is coordinated across the medical neighborhood	MPR	n.a.
D7a_l	Using data feedback on clinical measures to improve quality of care over time	MPR	n.a.
D7a_m	Using shared decision-making tools so that your providers and your patients work together to arrive at care decisions	MPR	n.a.

CPC Clinician and Staff Survey—2013-2014 Comprehensive Primary Care Clinician and Staff Survey. Mathematica Policy Research. "Evaluation of the Comprehensive Primary Care Initiative Clinician and Staff Survey." Princeton, NJ: Mathematica Policy Research, administered September 2013 through March 2014.

MPR—Mathematica Policy Research created this question for the CPC practice survey.

2012 American Hospital Association Survey, Information Technology Supplement. Health Forum, L.L.C

TransforMED Online Assessment Tool— TranforMED. 2012. "Medical Home Implementation Quotient." No longer in circulation.

PCMH-A, version 1.1— Safety Net Medical Home Initiative. "The Patient-Centered Medical Home Assessment Version 1.1." Seattle, WA: The MacColl Center for Health Care Innovation at Group Health Research Institute and Qualis Health. 2010.

Center for Studying Health System Change. Community Tracking Study Physician Survey, 2004-2005: [United States]. ICPSR04584-v2. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2008-05-14. <https://doi.org/10.3886/ICPSR04584.v2>.

C. Analysis methods

Calculation of composite measures. We developed an overall score and scores for specific domains of the M-PCMH-A using a statistical procedure called factor analysis. Factor analysis produces scores that provide a more reliable summary measure of the practice's care delivery than would a simple average of question responses. Factor analysis uses the correlation between the individual question and the domain it measures to reflect the reliability of each question in measuring the domain. We conducted the factor analysis on the responses of CPC practices to the 2012 practice survey, and then used the results to score each round of the survey responses for both CPC and comparison practices. We used 37 rather than 41 questions, because 3 of the 41 questions were not asked in all survey rounds and one question was not correlated with any of the questions in its domain and so was not included in domain scores.

Based on the factor analysis, we broke one of the six domains in the instrument into two domains, for a total of seven domains, and mapped 37 of the M-PCMH-A questions to these domains. We created summary scores for the seven M-PCMH-A domains as weighted averages of each practice's response to all questions in a given domain. These weights or factor loadings are also referred to as reliability weights. If a practice skipped a question, we rescaled the weights of the non-missing questions in the domain so that the sum of the weights equals 1, regardless of whether one or more responses were missing.² After we created scores for each domain, we calculated a reliability-weighted summary measure, the "overall M-PCMH-A score," composed of a weighted average of the seven domain scores (Poznyak et al. 2017).

Statistical estimation and testing. For each survey question and constructed composite measures, we compared responses between CPC and comparison practices in 2016. We statistically tested differences between CPC and comparison practices in 2016 overall M-PCMH-A scores and domain scores using a two-tailed t-test, and the 0.10 significance level. Because we were not able to collect data at the start of the initiative for comparison practices, differences we see in 2016 may reflect pre-existing differences between CPC and comparison practices. Related to this absence of baseline data for comparison practices, we did not calculate difference-in-differences estimates, because CPC practices may have already made substantial changes by the time of the second survey round that was fielded to both CPC and comparison practices in 2014. To limit the chances of false positives from multiple comparisons, we did not test the statistical significance of changes over time in the M-PCMH-A module or CPC-comparison differences in the other sections of the survey.

Power. Using two-tailed tests at the 10 percent significance level, the analysis had 80 percent power to detect a 0.3- to 0.5- point difference in 2016 average domain scores between CPC and comparison practices.

Software. We analyzed survey data using SAS version 9.4, and statistical tests used survey commands to account for the survey sampling design.

² Missing data for the 37 questions were uncommon. In each of the four survey rounds, 86 to 91 percent of CPC practices answered all questions and at most three practices skipped more than two questions in a given survey. In 2014, 2015, and 2016, 69, 83, and 80 percent of comparison practices answered all questions, respectively. (The percentage of comparison practices answering all questions in 2014 is affected by short-form respondents; excluding practices that answered only the short-form version, 82 percent of comparison practices answered all questions in 2014.)

D. Data tables

- Table D.5 lists the questions, grouped by domain, included in the modified PCMH-A (M-PCMH-A) module of the practice surveys.
- Tables D.6–D.20 present the 2012, 2014, 2015, and 2016 practice survey results.
- Tables D.6a and D.6b present mean CPC and comparison practice responses to the M-PCMH-A questions in 2012 (CPC only), 2014, 2015, and 2016 overall and by region.
- Table D.7 presents average changes in CPC practices' overall M-PCMH-A score over time by key practice characteristics.
- Tables D.8a and D.8b present distributions of CPC and comparison practice responses to the M-PCMH-A questions in 2012 (CPC only), 2014, 2015, and 2016 overall and by region.
- Tables D.9a and D.9b present CPC and comparison practice characteristics in 2014, 2015, and 2016 overall and by region.
- Tables D.10a and D.10b present CPC practices' assessment of learning activities and assistance provided by regional learning faculty in 2014, 2015, and 2016 overall and by region.
- Tables D.11a and D.11b present CPC practices' experience and satisfaction with CPC in 2014, 2015, and 2016 overall and by region.
- Table D.12 presents the percentage of CPC practices that reported having different staff types at the practice site in 2012, 2014, and 2016.
- Table D.13 presents the percentage of CPC practices that reported having different staff types at the practice site in 2012, 2014, and 2016, by practice size.
- Table D.14 presents the mean number of full-time equivalent staff in CPC practices that reported having that staff in 2012, 2014, and 2016, overall and by practice size.
- Table D.15 presents the mean number of full-time equivalent staff per primary care clinician in CPC practices that reported having that staff in 2012, 2014, and 2016, overall and by practice size.
- Table D.16 presents the mean number of full-time equivalent staff in CPC practices in 2012, 2014, and 2016, overall and by practice size.
- Table D.17 presents the mean number of full-time equivalent staff per primary care clinician in CPC practices in 2012, 2014, and 2016, overall and by practice size.
- Table D.18 presents the percentage of CPC practices that reported having different staff types at the practice site in 2012, 2014, and 2016, by system affiliation and by practices' median HCC score among the attributed Medicare FFS beneficiaries.
- Table D.19 presents the regression adjusted percentage of CPC and comparison practices with different staff types at the practice site in 2016.
- Table D.20 presents characteristics of CPC practices with and without care managers at the practice site in 2016.

Table D.5. Items and domains in the CPC practice survey's modified PCMH-A (M-PCMH-A) module

Question	
Continuity of care	
A1	Patient assignment to provider panels
1-3	Not assigned to panels
4-6	Assigned to panels; panel assignments are not routinely used by practice
7-9	Assigned to panels; panel assignments are routinely used for scheduling
10-12	Assigned to panels; panel assignments are routinely used for scheduling and monitored to balance supply and demand
A2	Patients are encouraged to see paneled provider and practice team
1-3	Only at the patient's request
4-6	By the practice team, but it is not a priority in appointment scheduling
7-9	By the practice team, and it is a priority in scheduling appointments; patients commonly see other providers
10-12	By the practice team, and it is a priority in scheduling appointments; patients usually see their own provider/practice team
Access to care	
A3	Appointment systems
1-3	Limited to a single office-visit type
4-6	Provide some flexibility in scheduling different visit lengths
7-9	Provide flexibility and include capacity for same-day visits
10-12	Flexible and can accommodate customized visit lengths, same-day visits, scheduled follow-up, and multiple provider visits
A4 ^a	Communicating with the practice team through email, text messaging, or patient portal
1-3	Not regularly available to practice patients
4-6	Available on a limited basis for practice patients
7-9	Generally available at a patient's request
10-12	Generally available; patients are regularly asked about their communication preferences
A6	Patient after-hours access (24 hours, 7 days a week) to a physician, PA/NP, or nurse
1-3	Not available or limited to an answering machine
4-6	Available from a coverage arrangement that does not offer a standardized communication protocol back to the practice for urgent problems
7-9	Provided by a coverage arrangement that shares necessary patient data and provides a summary to the practice
10-12	Available via email or phone directly with the practice team or a provider who has real-time access to the patient's electronic medical record
Planned care for chronic conditions and preventive care	
A7	Registries on individual patients
1-3	Not available to practice teams for pre-visit planning or patient outreach
4-6	Available to practice teams; not routinely used for pre-visit planning or patient outreach
7-9	Available to practice teams; routinely used for pre-visit planning or patient outreach but only for a limited number of diseases and risk states
10-12	Available and routinely used across a comprehensive set of diseases and risk states
A8	Comprehensive, evidence-based guidelines on prevention or chronic illness treatment
1-3	Not readily available
4-6	Available to the team but do not influence care
7-9	Available and integrated into care protocols and/or reminders
10-12	Guide the creation of individual-level patient reports to use during visits

Question

A9	Visits
1-3	Largely focus on patient's acute problems
4-6	Organized around acute problems with attention to ongoing illness and prevention needs if time permits
7-9	Organized around acute problems with attention to ongoing illness and prevention needs if time permits; practice uses subpopulation reports to proactively call groups of patients for planned care visits
10-12	Organized to address both acute and planned care needs; use tailored guideline-based information in team huddles to ensure patient needs are met at each encounter
A10 ^a	Reminders to providers
1-3	Not available
4-6	Include general notification of the existence of chronic illness; do not describe needed services at time of encounter
7-9	Include general notification of the existence of chronic illness and needed services through periodic reporting
10-12	Include general notification of the existence of chronic illness and specific information about guideline adherence at the time of individual patient encounters
A11	Nonphysician practice team members
1-3	Play a limited role in providing clinical care
4-6	Primarily tasked with managing patient flow and triage
7-9	Provide some clinical services such as assessment or self-management support
10-12	Perform key clinical service roles matching abilities and credentials
A12	Medication reconciliation
1-3	Not done
4-6	Done intermittently, as needed
7-9	Done regularly for patients during care transitions; documented in the patient's medical record
10-12	Done regularly for all patients; documented in the patient's medical record

Risk-stratified care management

A16	Standard method or tools to stratify patients by risk level
1-3	Not available
4-6	Available; not consistently used to stratify all patients
7-9	Available; consistently used to stratify all patients but inconsistently integrated into all aspects of care delivery
10-12	Available; consistently used and integrated into all aspects of care delivery
A17	Clinical care management services for high-risk patients
1-3	Not available
4-6	Provided by external care managers with limited connection to the practice
7-9	Provided by external care managers who regularly communicate with the care team
10-12	Systematically provided by care managers who are practice team members
A18	Registry or panel-level data
1-3	Not available to assess or manage care for practice populations
4-6	Available to assess and manage care for practice populations on an ad hoc basis
7-9	Regularly available to assess and manage care for practice populations for a limited number of diseases and risk states
10-12	Regularly available to assess and manage care for practice populations across a comprehensive set of diseases and risk states

Patient and caregiver engagement

A19	Assessing patient and family values and preferences
-----	---

Question

1-3	Not done
4-6	Done but not used in planning and organizing care
7-9	Done and incorporated in planning and organizing care on an ad hoc basis
10-12	Done systematically and incorporated in planning and organizing care
A20	Involving patients in decision making and care
1-3	Not a priority
4-6	Accomplished by provision of patient education materials or referrals to classes
7-9	Supported and documented by practice teams
10-12	Systematically supported by practice teams trained in decision making techniques
A21 ^a	Patient comprehension of verbal and written materials
1-3	Not assessed
4-6	Assessed; accomplished by assuring materials are at a level and language patients understand
7-9	Assessed; accomplished by translation services or multilingual staff assuring materials and communications are at a level and language patients understand
10-12	Assessed; accomplished by translation services or multilingual staff, and training staff in health literacy and communication techniques assuring that patients know how to manage conditions at home
A22	Self-management support
1-3	Limited to the distribution of information (for example, pamphlets, booklets)
4-6	Accomplished by referral to self-management classes or educators
7-9	Provided by goal setting and action planning with members of the practice team
10-12	Provided by practice team members trained in patient empowerment and problem-solving methodologies
A23	Test results and care plans
1-3	Not communicated to patients
4-6	Communicated to patients based on an ad hoc approach
7-9	Systematically communicated to patients in a way that is convenient to the practice
10-12	Systematically communicated to patients in ways that are convenient to patients
A24	Feedback to practice from patient and family caregiver council
1-3	Not collected
4-6	Collected on an ad hoc basis but not regularly incorporated into practice improvements
7-9	Collected regularly (at least quarterly) and incorporated into practice improvements on an ad hoc basis
10-12	Consistently used to guide practice improvements and measure system performance and practice-level care interactions

Coordination of care across the medical neighborhood

A14	Tracking of patient referrals to specialists
1-3	Not generally done
4-6	Sometimes done
7-9	Consistently done for high-risk patients
10-12	Consistently done for all patients
A15	Care plans
1-3	Not routinely developed or recorded
4-6	Developed and recorded but reflect only providers' priorities
7-9	Developed collaboratively with patients and families; include self-management and clinical goals; not routinely recorded or used to guide subsequent care

Question

10-12	Developed collaboratively with patients and families; include self-management and clinical goals; routinely recorded and used to guide subsequent care
A26 ^a	Referral relationships with medical and surgical specialists
1-3	Not formalized with referral protocols or practice agreements
4-6	Formalized with referral protocols or practice agreements with a few medical and surgical specialist groups
7-9	Formalized with referral protocols or practice agreements with many medical and surgical specialist groups
10-12	Formalized with referral protocols or practice agreements with most or all medical and surgical specialist groups
A27	Behavioral health services
1-3	Difficult to obtain reliably
4-6	Available from behavioral health specialists but neither timely nor convenient
7-9	Available from behavioral health specialists and generally timely and convenient
10-12	Readily available from behavioral health specialists who are on-site members of the care team or work in an organization with which the practice has a referral protocol or agreement
A28	Patients in need of specialty care, hospital care, or supportive community-based resources
1-3	Cannot reliably obtain needed referrals to partners with whom the practice has a relationship
4-6	Obtain needed referrals to partners with whom the practice has a relationship
7-9	Obtain needed referrals to partners with whom the practice has a relationship; relevant information is communicated in advance
10-12	Obtain needed referrals to partners with whom the practice has a relationship; relevant information is communicated in advance; timely follow-up after visit
A29	Practice follow-up with patients seen in emergency room (ER) or hospital
1-3	Generally does not occur, because information is not available to the primary care team
4-6	Occurs only if the ER or hospital alerts the practice
7-9	Occurs because the practice makes proactive efforts to identify patients
10-12	Done routinely, because the practice has arrangements with ER and hospital to track patients and ensure follow-up is completed within a few days
A30	Linking patients to supportive community-based resources
1-3	Not done systematically
4-6	Limited to providing patients a list of identified community resources in an accessible format
7-9	Accomplished through a designated staff person or resource responsible for connecting patients with community resources
10-12	Accomplished through active coordination between health system, community service agencies, and patients; accomplished by a designated staff person
A31	Transmission of patient information when patients are referred to other providers
1-3	Not done consistently
4-6	Done sometimes but does not always contain a complete set of clinical information
7-9	Done usually but does not always contain a complete set of clinical information
10-12	Done consistently and always contains a complete set of clinical information
A32	Receipt of information about patients from hospitals and ERs in the community
1-3	Does not occur consistently
4-6	Occurs usually but often one week or longer after the event
7-9	Occurs usually occurs within 72 hours after the event
10-12	Consistently occurs within 24 hours after the event
A34	Practice knows the total cost to payers of medical care
1-3	For no patients
4-6	For some patients

Question

7-9 For most patients
10-12 For all patients

Continuous improvement driven by data

A35	Quality improvement (QI) activities
1-3	Not organized or supported consistently
4-6	Conducted on an ad hoc basis in reaction to specific problems
7-9	Based on a proven improvement strategy in reaction to specific problems
10-12	Based on a proven improvement strategy; used continuously in meeting organizational goals
A36	QI activities
1-3	Conducted by a centralized committee or department
4-6	Conducted by topic-specific QI committees
7-9	Conducted by all practice teams supported by a QI infrastructure
10-12	Conducted by practice teams supported by a QI infrastructure with meaningful involvement of patients and families
A37	Performance measures
1-3	Not available for the practice
4-6	Available for the practice but limited in scope
7-9	Comprehensive and available for the practice but not for individual providers
10-12	Comprehensive and available for the practice and individual providers and fed back to individual providers
A38	Reports of patient care experiences and care processes or outcomes
1-3	Not routinely available to practice teams
4-6	Routinely provided as feedback to practice teams but not reported externally
7-9	Routinely provided as feedback to practice teams and reported externally with team identities masked
10-12	Routinely provided as feedback to practice teams; transparently reported externally to patients, other teams, and external agencies
A39 ^a	Staff, resources, and time for QI activities
1-3	Not readily available in the practice
4-6	Occasionally available but limited in scope
7-9	Generally available and usually at the level needed
10-12	Fully available in the practice
A40	Practice hiring and training processes
1-3	Focus only on narrowly defined functions and requirements of each position
4-6	Reflect how potential hires will affect the culture and participate in QI activities
7-9	Place a priority on the ability of new and existing staff to improve care and create a patient-centered culture
10-12	Support and sustain improvements in care through training and incentives focused on rewarding patient-centered care
A41	Responsibility for conducting QI activities
1-3	Not assigned to any specific group
4-6	Assigned to a group without committed resources
7-9	Assigned to an identified QI group that receives dedicated resources
10-12	Shared by all staff

Question

Questions not included in the M-PCMH-A domains^b

A5	Scheduled phone or group visits with the physician, PA, NP, or nurse
1-3	Not regularly available to practice patients
4-6	Available on a limited basis
7-9	Generally available at a patient's request
10-12	Generally available; patients are regularly asked about their preferences for phone or group visits
A13	Notification of patients of their laboratory and radiology results
1-3	Generally not done
4-6	Sometimes done
7-9	Consistently done for abnormal results and sporadically for normal results
10-12	Consistently done for abnormal and normal results
A25	Shared decision making aids used to help patients and providers jointly decide on treatment options
1-3	Not provided to patients
4-6	Sometimes provided to patients for one or more clinical conditions
7-9	Consistently provided to patients for two or more clinical conditions, but provision is not formally tracked
10-12	Consistently provided to patients for two or more clinical conditions; provision is tracked with run charts or other measures
A33	Timely receipt of information about patients after they visit specialists in the community
1-3	Does not occur consistently
4-6	Occurs for some patients
7-9	Occurs for most patients
10-12	Occurs for all patients

Sources: CPC practice surveys administered October through December 2012, April through July 2014, April through August 2015, and April through August 2016.

Notes: Question numbers and labels are from the 2016 practice survey.

^a The wording of the question and/or response categories changed between the 2012 and 2014 versions of the survey. There were no wording changes in the later versions.

^b Four questions are not included in the composite scores for the seven M-PCMH-A domains, because three questions were not asked in the first survey round (A5, A25, A33), and one question (A13) was determined to be not statistically related to any function of primary care delivery in our factor analysis.

M-PCMH-A = Patient-Centered Medical Home Assessment modified for the CPC evaluation; PA = physician assistant; NP = nurse practitioner; ER = emergency room; QI = quality improvement.

Table D.6a. Mean CPC and comparison practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, overall and by region (AR, CO, and NJ)

Question	CPC-wide							AR				CO				NJ			
	CPC				Comparison			CPC				CPC				CPC			
	2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
Sample size ^a	471	471	471	471	423	340	358	64	64	64	64	74	74	74	74	62	62	62	62
Overall M-PCMH-A Score and Domains (scale: 1 [least advanced approach] - 12 [best approach])																			
Overall M-PCMH-A score (37 questions)	6.5	8.7	9.2	9.4	8.0	8.5	8.5	6.5	8.6	8.9	9.2	6.6	8.8	9.2	9.4	6.3	8.5	9.2	9.4
Continuity of care (2 questions)	9.6	10.2	10.4	10.6	9.6	9.4	9.8	10.2	10.6	10.6	10.7	9.0	10.0	10.2	10.4	9.4	9.9	10.3	10.5
Access to care (3 questions)	7.0	9.6	10.1	10.5	8.8	9.5	9.6	6.6	9.5	9.9	10.4	7.1	9.1	10.3	10.2	7.0	9.3	10.3	10.7
Planned care for chronic conditions and preventive care (6 questions)	7.6	9.1	9.5	9.7	8.8	9.2	9.2	7.9	9.0	9.3	9.5	7.9	9.1	9.3	9.5	7.6	9.2	9.9	9.9
Risk-stratified care management (3 questions)	4.6	9.7	10.0	10.1	7.2	8.0	7.7	4.5	9.9	9.7	9.9	4.8	9.6	9.9	9.9	4.6	9.5	9.9	10.0
Patient and caregiver engagement (6 questions)	6.7	7.9	8.5	8.8	8.0	8.2	8.3	6.9	7.4	8.1	8.5	6.4	8.2	8.4	8.9	6.5	7.7	8.4	8.5
Coordination of care across the medical neighborhood (10 questions)	6.7	8.0	8.5	8.7	7.9	8.3	8.3	6.9	7.8	8.3	8.7	6.7	8.4	8.8	8.9	6.6	7.7	8.3	8.6
Continuous improvement driven by data (7 questions)	5.8	8.0	8.3	8.7	7.1	7.7	7.7	5.5	8.0	7.9	8.3	6.2	8.1	8.6	8.9	4.9	7.7	8.2	8.5
Individual M-PCMH-A Domains (scale: 1 [least advanced approach] - 12 [best approach])																			
Continuity of care																			
A1 Patient assignment to specific provider, and use of that assignment to schedule and monitor supply and demand	9.2	10.1	10.4	10.5	9.3	9.3	9.5	9.9	10.7	10.6	10.8	8.8	9.7	10.2	10.5	8.9	9.8	10.4	10.4
A2 The extent to which patients are encouraged to, and usually see their own provider and practice team	9.9	10.3	10.5	10.7	9.9	9.5	9.9	10.5	10.6	10.7	10.8	9.3	10.2	10.3	10.4	9.8	9.9	10.3	10.5
Access to care																			
A3 Flexibility of appointment systems for different-length and same-day visits	10.3	10.5	10.5	10.8	10.5	10.4	10.4	10.2	10.4	10.4	10.7	10.3	10.5	10.7	10.8	10.6	10.7	10.4	11.0
A4 Asynchronous communication with practice team including patients' preferred mode	4.3	8.8	9.9	10.4	7.9	9.4	9.4	4.3	8.7	9.5	10.4	4.4	7.5	9.9	9.9	4.1	7.9	10.0	10.3
A6 Patient after-hours access to a coverage team or the practice, and availability of patient EHR	8.2	10.0	10.2	10.4	8.5	9.0	9.1	6.9	9.9	10.1	10.2	8.2	10.3	10.3	10.3	8.1	10.3	10.7	11.1
Planned care for chronic conditions and preventive care																			
A7 Availability and proactive use of patient registries by practice teams	5.2	8.4	9.0	9.1	7.8	8.3	8.1	5.3	7.9	8.5	8.5	5.8	8.9	8.7	9.0	4.8	8.1	9.5	8.7
A8 Availability and use of evidence-based guidelines in care	7.7	8.9	9.0	9.3	8.6	9.0	9.0	8.0	8.8	8.9	9.1	8.1	8.5	9.2	9.2	7.9	8.9	9.3	9.6
A9 Focus of patient visits on acute and planned care needs	7.8	8.9	9.3	9.6	8.7	9.3	9.2	7.8	8.8	8.7	9.1	7.9	8.9	9.4	9.4	7.9	9.2	9.8	10.3
A10 The extent to which evidence-based reminders to providers are specific to the individual patient encounter	7.6	8.9	9.3	9.4	8.6	8.8	9.1	7.9	8.8	9.5	9.3	7.6	8.5	8.8	9.1	7.3	9.2	9.8	9.9

Table D.6a (continued)

Question	CPC-wide							AR				CO				NJ			
	CPC				Comparison			CPC				CPC				CPC			
	2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A11 Extent of role of nonphysician practice team members in providing clinical care	8.3	9.6	10.1	10.5	9.3	9.5	9.5	8.8	9.8	10.0	10.4	8.4	10.2	9.8	9.8	7.8	9.5	10.2	10.2
A12 Extent to which medication reconciliation occurs regularly and is documented in the patient's medical record	10.2	10.7	10.9	11.2	10.5	10.7	11.0	10.3	10.7	11.0	11.4	10.4	10.7	10.9	11.0	10.8	10.9	11.2	11.6
Risk-stratified care management																			
A16 Degree to which a standard method or tool to stratify patients by risk level is used and guides care delivery	3.8	9.7	10.3	10.2	7.1	7.7	7.6	4.0	10.1	10.2	10.4	3.6	9.2	10.0	9.9	4.0	10.0	10.3	10.5
A17 The provision of clinical care management services for high-risk patients by care managers integrated into the practice team	4.8	10.5	10.5	10.6	7.2	8.1	8.2	4.1	10.6	9.7	10.3	4.8	10.6	10.3	10.4	4.8	10.1	10.3	10.3
A18 The availability of registry or panel-level data to assess and manage care for practice populations	5.4	8.7	9.1	9.3	7.2	8.0	7.3	5.5	8.8	8.9	8.9	6.1	8.9	9.1	9.4	5.2	8.2	8.9	8.9
Patient and caregiver engagement																			
A19 Assessment and incorporation of patient and family preferences in planning and organizing care	6.6	8.1	8.5	8.7	8.1	8.2	8.3	7.2	7.8	8.4	8.6	5.9	8.2	7.8	8.2	6.7	7.6	8.4	8.5
A20 How systematically practice teams involve patients in decision making	7.0	8.1	8.8	9.2	8.4	8.6	8.9	7.1	7.8	8.6	8.8	7.2	8.4	8.2	8.8	6.8	8.2	9.1	9.2
A21 Extent to which patient comprehension of written and verbal communication is assessed and accomplished	6.3	7.7	8.0	8.2	7.5	8.1	8.1	6.6	7.1	7.6	8.0	6.2	7.4	7.3	7.9	6.5	7.7	8.2	8.2
A22 The type of self-management support provided by members of the practice team	5.9	7.8	8.6	8.7	6.9	7.3	7.3	5.9	7.5	7.8	8.2	5.7	7.9	8.7	9.1	5.7	7.2	8.4	8.2
A23 How test results and care plans are communicated to patients	8.8	9.4	10.0	10.2	10.0	10.1	10.3	9.0	8.7	9.7	10.1	8.9	9.5	10.1	10.5	8.7	9.3	10.3	10.2
A24 The use of feedback from a patient and family caregiver council to guide practice improvements	5.5	6.1	7.1	7.8	6.9	7.2	6.9	5.6	5.8	6.3	7.3	4.7	8.1	8.5	9.2	4.7	6.0	6.2	6.1
Coordination of care across the medical neighborhood																			
A14 The extent of tracking of patient referrals to specialists	7.8	8.7	9.3	9.1	9.3	9.8	9.5	8.4	9.0	9.4	9.9	7.9	9.1	8.9	8.8	7.1	8.2	9.1	8.9
A15 The collaborative development of care plans with patients and families that include self-management and clinical management goals, and are used to guide care	6.5	8.5	8.8	9.1	7.9	8.5	8.2	6.3	7.7	7.8	9.0	6.5	8.2	9.3	9.4	6.8	8.4	9.0	9.0
A26 The extent to which referral relationships with a range of specialists are formalized	7.2	5.8	6.4	6.5	6.8	7.9	7.9	7.9	4.3	6.3	6.3	7.1	6.4	7.1	6.7	6.8	5.3	6.7	6.5
A27 Availability of behavioral health services for patients	5.8	6.7	7.3	7.5	6.9	6.6	7.0	6.0	6.4	6.9	7.3	5.9	8.1	8.8	8.9	5.8	6.8	6.8	7.6
A28 The ease of obtaining referrals for specialty care, hospital care, or supportive community-based resources and exchange of relevant information with other providers before and after the patient visit	8.5	9.2	9.4	9.6	9.2	9.7	9.5	9.2	9.4	9.7	9.6	8.1	9.6	9.7	9.9	8.5	9.3	9.4	9.8

Table D.6a (continued)

Question	CPC-wide							AR				CO				NJ			
	CPC				Comparison			CPC				CPC				CPC			
	2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A29 Practice staff follow-up with patients following ED/hospital visits	7.2	9.9	10.4	10.7	9.1	9.2	9.4	6.9	10.1	10.3	10.6	7.0	10.1	10.2	10.4	7.9	9.9	10.3	10.6
A30 How practices link patients to supportive community-based resources	5.9	8.2	8.6	8.9	7.0	7.4	7.7	5.9	8.5	7.5	8.3	5.8	8.3	8.5	9.0	5.7	7.6	8.6	8.3
A31 Transmission of patient information when this practice refers patients to hospitals, EDs, and specialists	8.7	9.6	9.8	10.2	10.0	10.2	10.5	9.6	10.3	10.3	10.7	8.7	9.9	9.9	10.2	7.8	8.7	9.1	9.6
A32 The timeliness of information received from hospitals and EDs following a patient's visit	6.9	8.6	9.3	9.5	8.2	8.6	8.6	6.3	8.2	9.3	9.3	7.9	8.8	9.3	10.0	6.7	8.2	8.5	9.1
A34 The proportion of patients for whom the practice knows the total cost to payers for medical care	2.8	5.0	6.0	6.0	4.9	5.4	5.3	3.0	4.5	5.5	6.2	2.9	5.7	6.7	6.0	2.8	5.1	5.5	6.4
Continuous improvement driven by data																			
A35 Practice's use of quality improvement (QI) activities that are continuous and based on proven improvement strategies	6.8	8.7	8.8	9.2	8.3	8.5	8.7	6.6	8.7	8.2	8.8	7.2	9.1	9.4	9.4	5.8	8.4	8.6	9.3
A36 Extent to which QI activities are conducted by practice teams supported by a QI infrastructure with meaningful involvement of patients and their families	5.0	7.3	7.5	8.2	6.4	6.8	7.2	4.4	7.2	6.9	7.5	5.2	8.0	8.5	8.8	4.2	6.6	6.8	7.3
A37 The availability of comprehensive performance measures to practice site and individual providers	6.9	9.2	9.9	9.9	8.0	8.8	8.7	6.3	9.0	9.3	9.9	7.7	9.2	9.9	9.7	5.6	9.1	9.7	9.8
A38 Availability of feedback reports on patient care experiences, and care processes or outcomes to practice site, individual providers, practice teams, patients, other teams, and external agencies	4.5	7.7	8.1	8.3	5.7	6.5	6.5	3.8	7.1	7.6	7.5	4.2	6.9	7.9	8.5	3.2	7.5	8.4	8.5
A39 The availability of staff, resources, and time for QI activities	5.4	7.2	7.8	8.2	6.9	7.3	7.4	5.5	7.4	7.1	8.0	5.8	7.6	7.7	8.3	5.0	7.2	7.9	8.2
A40 The extent to which hiring and training processes focus on improving care and creating patient-centered care	6.1	7.4	8.0	8.3	7.4	8.1	7.7	6.7	7.6	8.3	8.3	6.3	7.2	7.6	8.5	6.1	7.3	7.8	7.8
A41 The extent to which responsibility for conducting QI activities is shared by staff and is made explicit through protected time to meet and specific resources to engage in QI	5.8	8.2	8.4	8.8	6.8	7.9	7.6	5.6	8.4	7.9	8.3	6.7	8.6	8.9	9.1	4.8	7.8	8.2	8.4
Questions not included in M-PCMH-A domains ^b																			
A5 The availability of scheduled phone visits or group visits with the physician, PA, NP, or nurse	n.a.	4.1	4.3	4.6	3.5	3.9	4.2	n.a.	4.0	4.1	4.3	n.a.	3.2	4.2	4.0	n.a.	3.2	3.9	4.9
A13 The extent to which practices notify patients of their laboratory and radiology results	10.5	10.7	10.7	10.9	11.1	11.0	11.1	10.3	10.5	10.9	11.1	10.9	10.9	10.5	10.5	10.7	10.7	10.9	10.8
A25 The use of shared decision making aids to help patients and providers jointly decide on treatment options	n.a.	8.1	9.2	9.4	6.8	7.3	7.2	n.a.	8.0	8.7	8.9	n.a.	9.7	8.9	9.1	n.a.	8.7	9.5	9.8
A33 Timely receipt of information about patients after they visit specialists in the community	n.a.	7.7	8.0	8.3	8.2	8.4	8.2	n.a.	7.3	7.8	7.8	n.a.	7.5	8.3	8.8	n.a.	7.7	7.6	7.8

Table D.6a (continued)

Source: CPC practice surveys administered to CPC practices October through December 2012, and to CPC and comparison practices April through July 2014, April through August 2015, and April through August 2016.

Notes: Question numbers pertain to the 2016 CPC practice survey.

Composite scores for the seven M-PCMH-A domains are first calculated at the practice-level. Practice-level composite scores are weighted averages of each practices' response to all questions in a given domain. The weights are derived from a factor analysis conducted on the responses of CPC practices to the 2012 practice survey that reflect the reliability of each question in measuring the domain. If a practice skipped a question, we rescaled the weights of the non-missing questions in the domain so that the sum of the weights equals 1, regardless of whether one or more responses were missing. After we created composite scores for each domain, we calculated a reliability-weighted summary measure, the "overall M-PCMH-A score," composed of a weighted average of the composite scores for each of the seven domains. We then, averaged composite scores across all practices to calculate the sample-wide composite scores. We assigned practice-level weights to comparison practices that were equal to the product of a matching weight and nonresponse weight.

^a The sample sizes presented here are the largest sample sizes for each group (CPC or comparison), year, and region across the 41 M-PCMH-A questions. Question-by-question sample sizes can be found in Table D.8.

^b Four questions are not included in the composite scores for the seven M-PCMH-A domains because (1) three of these four questions were not asked in the first survey round (A5, A25, A33), and (2) one of the questions (A13) was determined to be not statistically related to any function of primary care delivery in our factor analysis.

n.a. = not applicable because the question was not asked in the given survey round; M-PCMH-A = Patient-Centered Medical Home Assessment modified for the CPC evaluation; PA = physician assistant; NP = nurse practitioner; ER = emergency room; EHR = electronic health record; QI = quality improvement.

Table D.6b. Mean CPC practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, by region (NY, OH/KY, OK, and OR)

Question	NY				OH/KY				OK				OR			
	CPC				CPC				CPC				CPC			
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
Sample size ^a	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
Overall M-PCMH-A Score and Domains (scale: 1 [least advanced approach] - 12 [best approach])																
Overall M-PCMH-A score (37 questions)	6.4	8.3	9.0	9.3	6.9	9.2	9.5	10.1	5.6	8.8	9.1	9.3	7.0	8.8	9.3	9.2
Continuity of care (2 questions)	9.7	10.4	10.4	10.4	9.9	10.1	10.2	10.7	9.5	10.1	11.0	10.9	9.3	10.6	10.4	10.6
Access to care (3 questions)	7.3	9.6	10.1	10.5	7.5	10.4	10.4	10.8	5.8	9.2	9.5	10.3	7.6	9.9	10.3	10.4
Planned care for chronic conditions and preventive care (6 questions)	7.3	8.4	9.0	9.4	8.0	9.7	9.7	10.6	6.8	9.2	9.5	9.7	8.0	9.2	9.6	9.4
Risk-stratified care management (3 questions)	4.3	9.1	10.0	10.1	4.8	10.1	10.6	10.8	3.5	10.2	10.1	10.2	5.7	9.4	9.9	9.5
Patient and caregiver engagement (6 questions)	6.5	7.7	8.4	8.7	7.2	8.3	8.9	9.5	6.0	8.0	8.5	8.7	6.9	7.8	8.6	8.5
Coordination of care across the medical neighborhood (10 questions)	6.7	7.6	8.4	8.3	6.9	8.1	8.7	9.4	6.3	8.1	8.3	8.3	6.9	8.3	8.7	8.6
Continuous improvement driven by data (7 questions)	5.7	7.1	8.0	8.4	6.6	8.7	8.8	9.5	4.6	8.0	8.4	8.6	6.5	8.2	8.5	8.4
Individual M-PCMH-A Domains (scale: 1 [least advanced approach] - 12 [best approach])																
Continuity of care																
A1 Patient assignment to specific provider, and use of that assignment to schedule and monitor supply and demand	9.6	10.1	10.5	10.2	9.4	9.8	9.8	10.4	8.8	10.0	10.9	10.5	9.2	10.6	10.3	10.5
A2 The extent to which patients are encouraged to, and usually see their own provider and practice team	9.9	10.6	10.3	10.5	10.3	10.3	10.5	10.9	10.1	10.3	11.1	11.2	9.4	10.6	10.4	10.7
Access to care																
A3 Flexibility of appointment systems for different-length and same-day visits	10.8	10.8	10.6	11.0	10.4	10.7	10.6	10.8	9.2	10.3	9.8	10.8	10.2	10.3	10.4	10.4
A4 Asynchronous communication with practice team including patients' preferred mode	4.0	8.9	9.8	10.6	4.9	10.5	10.4	10.7	2.6	8.3	9.0	10.4	5.2	9.7	10.4	10.5
A6 Patient after-hours access to a coverage team or the practice, and availability of patient EHR	8.8	9.5	10.1	9.9	8.8	10.2	10.3	11.0	7.6	9.6	9.9	9.7	8.8	9.9	10.0	10.3
Planned care for chronic conditions and preventive care																
A7 Availability and proactive use of patient registries by practice teams	5.4	7.7	7.8	8.8	4.0	9.2	9.5	10.8	4.9	8.7	9.2	9.4	6.1	8.5	9.5	8.3
A8 Availability and use of evidence-based guidelines in care	7.1	8.4	8.6	9.1	7.9	9.3	9.0	9.9	6.6	9.2	8.9	9.0	7.9	9.2	9.3	9.1
A9 Focus of patient visits on acute and planned care needs	7.3	8.4	9.0	9.2	8.7	9.4	9.4	10.2	7.0	9.2	9.4	9.6	7.8	8.8	9.4	9.3
A10 The extent to which evidence-based reminders to providers are specific to the individual patient encounter	7.0	8.1	8.7	8.9	8.2	10.3	9.9	10.6	6.6	8.6	9.3	8.8	8.2	8.9	9.4	9.2
A11 Extent of role of nonphysician practice team members in providing clinical care	8.1	8.3	9.6	10.2	9.2	9.8	10.5	11.2	7.2	9.7	10.3	11.2	8.7	10.1	10.2	10.7

Table D.6b (continued)

Question	NY				OH/KY				OK				OR			
	CPC				CPC				CPC				CPC			
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A12 Extent to which medication reconciliation occurs regularly and is documented in the patient's medical record	10.0	10.4	10.8	11.3	10.4	10.7	11.0	11.2	9.9	11.0	10.8	11.5	9.8	10.3	10.8	10.8
Risk-stratified care management																
A16 Degree to which a standard method or tool to stratify patients by risk level is used and guides care delivery	4.0	10.0	10.6	10.2	4.1	9.7	10.5	10.9	3.1	10.3	10.8	10.4	3.7	8.8	9.6	9.2
A17 The provision of clinical care management services for high-risk patients by care managers integrated into the practice team	4.3	10.1	10.6	10.8	5.3	10.9	11.4	11.2	3.0	10.9	10.5	10.7	6.8	10.4	10.6	10.4
A18 The availability of registry or panel-level data to assess and manage care for practice populations	4.6	6.8	8.5	9.3	5.1	9.6	9.8	10.2	4.5	9.3	8.9	9.5	6.9	9.1	9.5	8.9
Patient and caregiver engagement																
A19 Assessment and incorporation of patient and family preferences in planning and organizing care	6.8	8.0	8.3	8.9	6.6	8.7	9.1	9.6	6.1	8.6	8.9	8.6	6.9	7.8	8.5	8.5
A20 How systematically practice teams involve patients in decision making	6.8	7.6	8.9	9.1	7.5	8.6	9.0	9.9	6.7	8.2	9.4	9.4	6.6	7.9	8.6	8.8
A21 Extent to which patient comprehension of written and verbal communication is assessed and accomplished	5.9	7.5	8.2	8.5	6.5	8.0	8.4	8.7	5.0	7.8	8.1	7.7	7.7	8.3	8.2	8.1
A22 The type of self-management support provided by members of the practice team	5.7	7.4	8.2	8.2	6.3	8.6	9.5	9.8	5.2	8.0	8.6	8.7	6.6	7.7	8.5	8.3
A23 How test results and care plans are communicated to patients	8.4	9.3	9.8	10.2	9.4	10.2	10.4	10.7	8.3	9.5	9.7	10.3	8.8	9.4	9.9	9.5
A24 The use of feedback from a patient and family caregiver council to guide practice improvements	5.7	6.5	6.9	7.4	7.5	5.4	6.8	8.3	5.1	5.4	6.5	7.6	4.7	5.4	8.2	7.9
Coordination of care across the medical neighborhood																
A14 The extent of tracking of patient referrals to specialists	7.7	9.0	9.1	9.2	7.7	8.5	9.9	10.1	8.0	8.8	9.5	8.0	7.9	8.7	8.9	8.6
A15 The collaborative development of care plans with patients and families that include self-management and clinical management goals, and are used to guide care	5.8	8.5	8.6	8.1	7.3	9.0	9.5	10.5	6.5	9.2	8.3	9.0	6.1	8.3	8.8	8.3
A26 The extent to which referral relationships with a range of specialists are formalized	6.8	5.9	6.3	6.5	7.0	6.4	6.4	7.4	7.2	6.4	5.4	5.7	7.5	6.1	6.6	6.1
A27 Availability of behavioral health services for patients	5.8	5.8	6.8	6.5	5.5	5.4	5.6	6.4	5.6	5.9	7.2	7.0	6.3	8.5	8.7	9.0
A28 The ease of obtaining referrals for specialty care, hospital care, or supportive community-based resources and exchange of relevant information with other providers before and after the patient visit	8.8	8.4	9.3	8.9	8.6	9.2	9.5	10.2	7.8	9.2	9.3	9.2	8.7	9.3	9.2	9.5
A29 Practice staff follow-up with patients following ED/hospital visits	7.3	9.8	10.8	10.6	7.2	10.1	10.8	11.6	6.4	9.7	9.9	10.3	7.4	9.9	10.6	10.8
A30 How practices link patients to supportive community-based resources	6.1	7.5	8.8	8.9	6.3	9.2	9.3	9.8	5.1	8.2	8.5	9.2	6.3	7.9	8.9	8.8
A31 Transmission of patient information when this practice refers patients to hospitals, EDs, and specialists	8.9	9.3	9.5	9.9	8.6	8.8	10.2	10.7	8.4	10.2	9.6	9.8	9.2	10.4	10.2	10.4
A32 The timeliness of information received from hospitals and EDs following a patient's visit	7.1	8.2	8.8	8.3	7.8	9.3	10.2	10.8	5.6	8.3	8.8	9.0	6.5	9.2	10.0	9.9

Table D.6b (continued)

Question	NY				OH/KY				OK				OR			
	CPC				CPC				CPC				CPC			
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A34 The proportion of patients for whom the practice knows the total cost to payers for medical care	3.0	4.3	6.4	5.7	2.8	4.9	5.9	7.1	2.2	5.4	6.4	5.4	2.9	5.0	5.5	5.1
Continuous improvement driven by data																
A35 Practice's use of quality improvement (QI) activities that are continuous and based on proven improvement strategies	6.4	7.8	8.1	9.0	8.2	9.3	9.4	9.9	5.8	8.5	8.8	8.7	7.2	9.0	9.1	9.0
A36 Extent to which QI activities are conducted by practice teams supported by a QI infrastructure with meaningful involvement of patients and their families	4.7	6.4	7.0	7.9	5.6	7.4	8.0	9.2	4.4	7.5	6.5	8.1	5.9	8.2	8.4	8.4
A37 The availability of comprehensive performance measures to practice site and individual providers	6.3	7.6	9.3	9.4	8.1	10.4	10.9	11.0	5.5	9.5	9.8	10.3	8.6	9.7	10.2	9.3
A38 Availability of feedback reports on patient care experiences, and care processes or outcomes to practice site, individual providers, practice teams, patients, other teams, and external agencies	4.6	7.1	8.1	7.9	5.8	9.7	8.8	9.4	3.5	7.6	8.0	8.3	5.8	7.7	7.9	7.7
A39 The availability of staff, resources, and time for QI activities	5.6	6.6	7.3	8.0	6.1	7.2	8.0	8.8	4.3	7.7	8.9	8.5	5.5	7.0	7.6	7.8
A40 The extent to which hiring and training processes focus on improving care and creating patient-centered care	7.0	6.7	8.3	8.1	5.7	8.4	8.2	9.1	4.5	7.0	8.0	7.7	6.0	7.5	7.9	8.0
A41 The extent to which responsibility for conducting QI activities is shared by staff and is made explicit through protected time to meet and specific resources to engage in QI	5.2	7.3	8.0	8.6	6.8	8.8	8.5	9.2	4.4	8.0	9.1	8.8	6.5	8.3	8.2	8.7
Questions not included in M-PCMH-A domains ^b																
A5 The availability of scheduled phone visits or group visits with the physician, PA, NP, or nurse	n.a.	4.2	5.0	4.7	n.a.	5.1	4.1	5.1	n.a.	4.2	3.7	3.9	n.a.	4.4	5.1	5.2
A13 The extent to which practices notify patients of their laboratory and radiology results	10.4	10.8	10.6	10.7	10.6	11.1	10.7	11.4	10.5	10.6	10.8	10.6	10.3	10.3	10.7	11.0
A25 The use of shared decision making aids to help patients and providers jointly decide on treatment options	n.a.	8.1	9.4	9.5	n.a.	7.1	9.8	10.4	n.a.	7.5	8.6	8.9	n.a.	7.8	9.6	8.9
A33 Timely receipt of information about patients after they visit specialists in the community	n.a.	7.9	8.4	8.2	n.a.	7.7	8.4	9.2	n.a.	7.5	7.5	7.8	n.a.	8.2	8.3	8.1

Source: CPC practice surveys administered to CPC practices October through December 2012, and to CPC and comparison practices April through July 2014, April through August 2015, and April through August 2016.

Notes: Question numbers pertain to the 2016 CPC practice survey.

Composite scores for the seven M-PCMH-A domains are first calculated at the practice-level. Practice-level composite scores are weighted averages of each practices' response to all questions in a given domain. The weights are derived from a factor analysis conducted on the responses of CPC practices to the 2012 practice survey that reflect the reliability of each question in measuring the domain. If a practice skipped a question, we rescaled the weights of the non-missing questions in the domain so that the sum of the weights equals 1, regardless of whether one or more responses were missing. After we created composite scores for each domain, we calculated a reliability-weighted summary measure, the "overall M-PCMH-A score," composed of a weighted average of the composite scores for each of the seven domains. We then, averaged composite scores across all practices to calculate the sample-wide composite scores. We assigned practice-level weights to comparison practices that were equal to the product of a matching weight and nonresponse weight.

^a The sample sizes presented here are the largest sample sizes for each group (CPC or comparison), year, and region across the 41 M-PCMH-A questions. Question-by-question sample sizes can be found in Table D.8.

^b Four questions are not included in the composite scores for the seven M-PCMH-A domains because (1) three of these four questions were not asked in the first survey round (A5, A25, A33), and (2) one of the questions (A13) was determined to be not statistically related to any function of primary care delivery in our factor analysis.

n.a. = not applicable because the question was not asked in the given survey round; M-PCMH-A = Patient-Centered Medical Home Assessment modified for the CPC evaluation; PA = physician assistant; NP = nurse practitioner; ER = emergency room; EHR = electronic health record; QI = quality improvement.

Table D.7. M-PCMH-A scores by CPC practice characteristics

	N	Overall M-PCMH-A score Scale = 1 (least advanced approach) - 12 (best approach)							
		2012	2014	2015	2016	2012 to 2014 difference	2014 to 2015 difference	2015 to 2016 difference	2012 to 2016 difference
CPC-wide mean	471	6.5	8.7	9.2	9.4	2.3***	0.4***	0.2***	2.9***
CPC practice characteristics									
Practice Size in 2012 ^a									
1 clinician	73	6.5	8.7	8.9	9.4	2.2***	0.3***	0.4***	2.9***
2-3 clinicians	149	6.5	8.6	9.1	9.4	2.1***	0.5***	0.3***	2.9***
4-5 clinicians	118	6.5	9.0	9.4	9.5	2.5***	0.4***	0.1*	3.0***
6 or more clinicians	131	6.5	8.7	9.2	9.4	2.3***	0.5***	0.2***	2.9***
Ownership in 2012 ^b									
Private physician or clinician owned	248	6.5	8.8	9.1	9.4	2.3***	0.3***	0.2***	2.8***
Hospital/system owned/academic medical center	179	6.3	8.6	9.2	9.4	2.3***	0.5***	0.3***	3.1***
Insurance company, health plan, or HMO	3	6.9	10.3	10.1	9.5	3.4	-0.2	-0.6	2.7
Other	55	6.8	8.6	9.4	9.7	1.8***	0.7***	0.3***	2.8***
Percentage urban population at baseline ^c									
Bottom tertile	156	6.2	8.6	9.1	9.2	2.4***	0.4***	0.1*	2.9***
Middle tertile	163	6.6	8.8	9.2	9.5	2.2***	0.4***	0.3***	2.9***
Top tertile	152	6.6	8.8	9.2	9.6	2.2***	0.4***	0.3***	3.0***
CPC funding per clinician in 2013 (practice-level median) ^d									
Bottom tertile	154	6.7	8.8	9.1	9.4	2.1***	0.3***	0.3***	2.7***
Middle tertile	156	6.2	8.6	9.3	9.4	2.4***	0.7***	0.1*	3.2***
Top tertile	154	6.6	8.9	9.2	9.6	2.3***	0.3***	0.4***	3.0***
Autonomy to implement practice-level change in 2014 ^e									
Staff hiring									
High autonomy	88	6.9	8.9	9.4	9.7	2.0***	0.4***	0.3***	2.8***
No-moderate autonomy	114	6.0	8.5	9.1	9.3	2.5***	0.6***	0.2***	3.2***
Organization priorities, such as picking quality improvement goals									
High autonomy	60	6.6	9.1	9.6	9.7	2.5***	0.5***	0.1*	3.1***
No-moderate autonomy	153	6.4	8.7	9.2	9.4	2.2***	0.5***	0.3***	3.0***
Clinical work processes									
High autonomy	142	6.7	8.9	9.3	9.7	2.1***	0.4***	0.3***	2.9***
No-moderate autonomy	70	6.0	8.6	9.2	9.1	2.6***	0.6***	0.0	3.1***
Planning for and completion of CPC Milestones									
High autonomy	87	6.4	9.1	9.5	9.5	2.7***	0.4***	0.1*	3.2***
No-moderate autonomy	122	6.6	8.5	9.1	9.5	1.9***	0.6***	0.4***	2.9***

Table D.7 (continued)

	N	Overall M-PCMH-A score Scale = 1 (least advanced approach) - 12 (best approach)							
		2012	2014	2015	2016	2012 to 2014 difference	2014 to 2015 difference	2015 to 2016 difference	2012 to 2016 difference
Practice learning and assistance in 2014: Who does the regional learning faculty directly communicate with? ^e									
Staff in this practice site and/or a combination of practice site and group-level staff	414	6.5	8.8	9.2	9.4	2.3***	0.4***	0.2***	2.9***
Staff in our larger health care system or medical group	50	6.2	8.3	9.2	9.4	2.1***	0.9***	0.2**	3.3***
None of the staff in this practice site or in our larger health care system or medical group	0	0.0	0.0	0.0	0.0	n.a.	n.a.	n.a.	n.a.
Clinician compensation in 2014^e									
Among clinician owners:									
Salary	188	6.7	8.8	9.1	9.5	2.1***	0.3***	0.4***	2.9***
Productivity incentives	167	6.7	8.6	9.1	9.5	1.8***	0.6***	0.3***	2.7***
Quality incentives	80	6.5	8.9	9.5	9.5	2.4***	0.6***	0.1*	3.1***
Among clinician non-owners:									
Salary	355	6.5	8.7	9.2	9.4	2.3***	0.5***	0.2***	3.0***
Productivity incentives	270	6.5	8.7	9.3	9.5	2.2***	0.5***	0.2***	3.0***
Quality incentives	168	6.7	8.8	9.5	9.5	2.0***	0.7***	0.1*	2.8***
Participation in PCMH and EHR Initiatives									
PCMH recognition in 2012 ^f									
Yes	198	7.1	8.8	9.3	9.6	1.6***	0.5***	0.3***	2.5***
No	273	6.0	8.7	9.1	9.3	2.7***	0.4***	0.2***	3.3***
Use of data reports from EHR to guide quality improvement in 2014 ^e									
Yes	456	6.5	8.8	9.2	9.4	2.3***	0.4***	0.2***	2.9***
No	15	5.9	7.6	8.4	8.4	1.7***	0.8***	0.0*	2.4***
Initial application score									
CMS Score of the Practice ⁹									
Bottom tertile	157	6.0	8.5	9.0	9.2	2.5***	0.5***	0.2***	3.1***
Middle tertile	172	6.3	8.8	9.2	9.4	2.5***	0.4***	0.2***	3.1***
Top tertile	141	7.2	8.9	9.3	9.7	1.7***	0.4***	0.4***	2.5***
Baseline modified PCMH-A (M-PCMH-A) score									
M-PCMH-A score at baseline (2012) ^b									
Bottom tertile	155	4.9	8.6	8.9	9.1	3.7***	0.3***	0.2***	4.2***
Middle tertile	161	6.4	8.6	9.2	9.3	2.2***	0.6***	0.1*	2.9***
Top tertile	155	8.2	9.0	9.4	9.8	0.9***	0.3***	0.4***	1.6***

Table D.7 (continued)

	Overall M-PCMH-A score									
	Scale = 1 (least advanced approach) - 12 (best approach)									
	N	2012	2014	2015	2016	2012 to 2014 difference	2014 to 2015 difference	2015 to 2016 difference	2012 to 2016 difference	
Staffing changes										
Changes in staff made by 2014 as a result of the CPC initiative ^a										
Hired or contracted staff to fill new roles, or hired new staff to fill existing roles	408	6.5	8.7	9.2	9.4	2.2***	0.5***	0.3***	2.9***	
Moved existing staff into new roles or functions	292	6.6	8.8	9.2	9.5	2.2***	0.4***	0.3***	2.9***	
Moved clinicians from other practice sites to this practice site	21	6.7	8.8	9.2	9.5	2.0***	0.5**	0.2*	2.7***	
Moved non-clinician staff from other practice sites to this practice site	22	6.4	8.3	9.3	8.9	1.9***	0.9***	-0.3*	2.5***	
No change or eliminated staff	2	4.4	9.1	9.6	8.6	4.7	0.5	-1.0	4.3	
Assessment of CPC										
How much has participation in the CPC initiative improved the quality of care that this practice currently provides to its patients? ^b										
A lot	211	6.6	8.9	9.4	9.6	2.3***	0.5***	0.2***	3.0***	
Somewhat	218	6.5	8.7	9.1	9.4	2.2***	0.5***	0.3***	2.9***	
Not very much	30	6.2	8.2	8.6	8.8	2.0***	0.3*	0.2*	2.6***	
Not at all	5	6.3	8.4	9.1	9.2	2.1***	0.7	0.0	2.8**	

Sources: Mathematica analysis of the CPC practice surveys administered October through December 2012, April through July 2014, April through August 2015, and April through August 2016.

Notes: Bolded row indicates fewer than 10 respondents in that category.

^a Data from SK&A, 2012

^b 2012 CPC practice survey

^c Area Resource File, 2009

^d Practice-reported budget data

^e 2014 CPC practice survey

^f NCQA, CPC application data, Oklahoma Sooner Care data, 2012

^g 2016 CPC practice survey

^h 2016 CPC practice survey

*** Statistically different from zero at the 0.1/0.05/0.01 level.

n.a. = not applicable; M-PCMH-A = Patient-Centered Medical Home Assessment modified for the CPC evaluation; PCMH = Patient-Centered Medical Home; EHR = electronic health record; HMO = health maintenance organization; HIE = health information exchange.

Table D.8a. Distributions of CPC and comparison practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, overall and by region (AR, CO, and NJ)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
Overall M-PCMH-A score and domains (scale: 1 [least advanced approach] - 12 [best approach])																				
	Overall M-PCMH-A score																			
10 to 12	High	2%	13%	20%	29%	18%	20%	19%	3%	9%	20%	30%	1%	8%	17%	24%	0%	16%	29%	31%
7 to <10	Medium high	34%	80%	75%	69%	49%	59%	60%	34%	86%	70%	67%	32%	86%	81%	75%	35%	77%	68%	65%
4 to <7	Medium low	61%	7%	4%	2%	32%	20%	20%	61%	3%	9%	2%	67%	6%	3%	1%	61%	6%	3%	5%
1 to <4	Low	2%	0%	0%	0%	1%	0%	1%	2%	2%	0%	2%	0%	0%	0%	0%	3%	0%	0%	0%
	N	471	471	470	471	339	334	355	64	64	64	64	74	74	74	74	62	62	62	62
A1-2	Continuity of care																			
10 to 12	High	50%	64%	66%	76%	58%	50%	54%	63%	72%	75%	78%	39%	47%	50%	70%	45%	58%	63%	58%
7 to <10	Medium high	39%	34%	32%	23%	28%	37%	38%	30%	27%	22%	17%	47%	53%	47%	30%	40%	34%	32%	39%
4 to <7	Medium low	8%	2%	2%	1%	6%	10%	4%	6%	0%	2%	2%	10%	0%	3%	0%	10%	5%	2%	0%
1 to <4	Low	2%	1%	1%	1%	8%	3%	4%	2%	2%	2%	3%	4%	0%	0%	0%	5%	3%	3%	3%
	N	471	471	471	471	341	334	358	64	64	64	64	74	74	74	74	62	62	62	62
A3, 4, 6	Access to care																			
10 to 12	High	7%	54%	65%	74%	38%	53%	53%	3%	53%	61%	73%	8%	40%	71%	65%	6%	48%	68%	74%
7 to <10	Medium high	41%	37%	31%	24%	35%	34%	35%	38%	34%	33%	25%	32%	49%	29%	35%	37%	39%	29%	24%
4 to <7	Medium low	50%	8%	4%	2%	24%	12%	11%	56%	11%	5%	2%	60%	11%	0%	0%	55%	13%	3%	2%
1 to <4	Low	3%	1%	0%	0%	3%	1%	2%	3%	2%	2%	0%	0%	0%	0%	0%	2%	0%	0%	0%
	N	471	471	471	471	408	335	356	64	64	64	64	74	74	74	74	62	62	62	62
A7-12	Planned care for chronic conditions and preventive care																			
10 to 12	High	7%	30%	37%	43%	31%	34%	39%	11%	28%	36%	39%	11%	31%	32%	31%	6%	27%	48%	55%
7 to <10	Medium high	57%	61%	59%	53%	47%	53%	44%	59%	64%	56%	55%	63%	61%	67%	67%	56%	69%	47%	40%
4 to <7	Medium low	35%	9%	4%	4%	21%	14%	16%	30%	8%	8%	6%	26%	8%	1%	3%	35%	3%	5%	5%
1 to <4	Low	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
	N	471	471	470	471	342	335	356	64	64	64	64	74	74	74	74	62	62	62	62
A16-18	Risk-stratified care management																			
10 to 12	High	1%	46%	59%	60%	22%	30%	25%	3%	55%	55%	58%	1%	35%	44%	43%	2%	48%	48%	71%
7 to <10	Medium high	19%	50%	36%	38%	35%	34%	39%	9%	39%	34%	39%	19%	63%	50%	54%	19%	47%	50%	24%
4 to <7	Medium low	35%	4%	4%	2%	23%	25%	23%	44%	6%	9%	2%	33%	1%	6%	3%	32%	5%	2%	3%
1 to <4	Low	45%	0%	0%	0%	20%	11%	13%	44%	0%	2%	2%	46%	1%	0%	0%	47%	0%	0%	2%
	N	471	471	470	471	406	335	355	64	64	64	64	74	74	74	74	62	62	62	62
A19-24	Patient and caregiver engagement																			
10 to 12	High	3%	10%	13%	21%	19%	20%	24%	5%	6%	11%	20%	1%	7%	8%	15%	2%	10%	15%	19%
7 to <10	Medium high	36%	62%	74%	70%	46%	49%	47%	36%	50%	64%	56%	32%	75%	75%	82%	31%	55%	73%	69%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC							
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
4 to <7	Medium low	56%	27%	12%	9%	34%	30%	28%	56%	42%	20%	22%	64%	17%	17%	3%	61%	35%	13%	10%
1 to <4	Low	5%	1%	1%	1%	1%	1%	1%	3%	2%	5%	2%	3%	1%	0%	0%	6%	0%	0%	2%
	N	471	471	471	471	406	335	356	64	64	64	64	74	74	74	74	62	62	62	62
A14-15, 26-32, 34	Coordination of care across the medical neighborhood																			
10 to 12	High	3%	8%	13%	15%	13%	17%	17%	2%	6%	9%	14%	3%	1%	7%	4%	0%	11%	10%	11%
7 to <10	Medium high	38%	66%	77%	77%	55%	62%	59%	47%	61%	75%	78%	32%	85%	85%	94%	42%	53%	74%	79%
4 to <7	Medium low	56%	26%	9%	7%	31%	21%	24%	50%	31%	14%	6%	64%	14%	8%	1%	52%	35%	15%	6%
1 to <4	Low	4%	0%	1%	1%	1%	1%	1%	2%	2%	2%	2%	1%	0%	0%	0%	6%	0%	2%	3%
	N	471	471	471	471	407	335	356	64	64	64	64	74	74	74	74	62	62	62	62
A35-41	Continuous improvement driven by data																			
10 to 12	High	3%	13%	22%	25%	15%	22%	22%	3%	14%	14%	23%	4%	13%	26%	26%	0%	8%	31%	26%
7 to <10	Medium high	28%	58%	56%	55%	39%	42%	36%	22%	55%	53%	48%	31%	64%	56%	63%	24%	60%	37%	53%
4 to <7	Medium low	45%	26%	20%	18%	30%	25%	32%	45%	28%	28%	23%	54%	22%	19%	10%	34%	31%	32%	16%
1 to <4	Low	24%	2%	1%	2%	17%	12%	11%	30%	3%	5%	5%	11%	1%	0%	1%	42%	2%	0%	5%
	N	471	471	471	471	406	334	356	64	64	64	64	74	74	74	74	62	62	62	62
Individual M-PCMH-A domains																				
Continuity of care																				
A1	Patient assignment to provider panels																			
10 to 12	Assigned to panels; panel assignments are routinely used for scheduling and monitored to balance supply and demand	42%	61%	71%	73%	57%	53%	56%	58%	75%	75%	79%	35%	49%	63%	69%	40%	63%	71%	69%
7 to 9	Assigned to panels; panel assignments are routinely used for scheduling	47%	35%	27%	24%	26%	34%	33%	34%	23%	23%	16%	49%	50%	36%	29%	42%	29%	24%	27%
4 to 6	Assigned to panels; panel assignments are not routinely used by practice	8%	3%	1%	2%	8%	7%	6%	5%	0%	0%	2%	11%	1%	1%	1%	15%	6%	2%	2%
1 to 3	Not assigned to panels	3%	0%	1%	1%	8%	6%	5%	3%	2%	2%	3%	6%	0%	0%	0%	3%	2%	3%	2%
	N	470	470	471	470	337	333	356	64	64	64	63	74	74	74	74	62	62	62	62
A2	Patients are encouraged to see paneled provider and practice team																			
10 to 12	By the practice team, and it is a priority in scheduling appointments; patients usually see their own provider/practice team	65%	75%	75%	83%	73%	64%	63%	75%	78%	81%	83%	51%	73%	65%	72%	61%	61%	66%	73%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
7 to 9	By the practice team, and it is a priority in scheduling appointments; patients commonly see other providers	28%	23%	23%	16%	17%	24%	30%	23%	20%	16%	14%	39%	27%	33%	28%	29%	34%	31%	24%
4 to 6	By the practice team, but it is not a priority in appointment scheduling	4%	1%	1%	0%	1%	3%	2%	0%	0%	0%	0%	6%	0%	3%	0%	8%	2%	0%	0%
1 to 3	Only at the patient's request	2%	1%	1%	1%	9%	9%	5%	2%	2%	3%	3%	4%	0%	0%	0%	2%	3%	3%	3%
	N	471	469	471	470	341	333	358	64	64	64	64	74	73	74	74	62	62	62	62
Access to care																				
A3	Appointment systems																			
10 to 12	Flexible and can accommodate customized visit lengths, same-day visits, scheduled follow-up, and multiple provider visits	71%	80%	75%	82%	75%	70%	71%	67%	75%	70%	73%	75%	85%	87%	90%	77%	81%	77%	85%
7 to 9	Provide flexibility and include capacity for same-day visits	27%	19%	23%	17%	19%	26%	26%	30%	21%	30%	27%	22%	15%	13%	8%	23%	19%	19%	15%
4 to 6	Provide some flexibility in scheduling different visit lengths	1%	1%	1%	1%	5%	3%	3%	2%	3%	0%	0%	3%	0%	0%	1%	0%	0%	0%	0%
1 to 3	Limited to a single office-visit type	0%	0%	1%	0%	1%	1%	1%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%
	N	471	466	471	471	340	334	354	64	63	64	64	74	73	74	74	62	62	62	62
A4	Communicating with the practice team through email, text messaging, or patient portal																			
10 to 12	Generally available; patients are regularly asked about their communication preferences	7%	63%	78%	82%	53%	69%	67%	3%	62%	75%	83%	11%	44%	71%	72%	8%	48%	74%	82%
7 to 9	Generally available at a patient's request	14%	15%	13%	11%	13%	14%	16%	17%	16%	11%	14%	14%	17%	17%	11%	11%	19%	16%	10%
4 to 6	Available on a limited basis for practice patients	25%	10%	6%	6%	10%	5%	8%	28%	13%	9%	2%	15%	15%	12%	17%	29%	15%	8%	6%
1 to 3	Not regularly available to practice patients	54%	12%	4%	1%	23%	11%	10%	52%	10%	5%	2%	60%	24%	0%	0%	52%	18%	2%	2%
	N	468	469	470	470	341	334	352	64	63	64	64	74	74	74	74	62	62	62	62
A6 ^a	Patient after-hours access (24 hours, 7 days a week) to a physician, PA/NP, or nurse																			
10 to 12	Available via email or phone directly with the practice team or a provider who has real-time access to the patient's electronic medical record	25%	63%	69%	68%	39%	41%	42%	17%	66%	75%	69%	22%	65%	77%	62%	27%	67%	85%	87%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
7 to 9	Provided by a coverage arrangement that shares necessary patient data and provides a summary to the practice	55%	33%	28%	29%	39%	47%	46%	42%	28%	16%	28%	54%	32%	22%	38%	52%	33%	10%	11%
4 to 6	Available from a coverage arrangement that does not offer a standardized communication protocol back to the practice for urgent problems	17%	2%	2%	2%	16%	6%	8%	27%	2%	6%	2%	24%	3%	1%	0%	18%	0%	2%	2%
1 to 3	Not available or limited to an answering machine	4%	2%	1%	0%	6%	6%	4%	14%	5%	3%	2%	0%	0%	0%	0%	3%	0%	3%	0%
	N	470	470	470	469	407	333	354	64	64	64	64	74	74	74	73	62	61	62	62
Planned care for chronic conditions and preventive care																				
A7	Registries—either integrated in the EHR or free-standing—on individual patients																			
10 to 12	Available and routinely used across a comprehensive set of diseases and risk states	8%	40%	45%	47%	40%	43%	46%	8%	33%	45%	42%	10%	50%	32%	33%	10%	32%	54%	50%
7 to 9	Available to practice teams; routinely used for pre-visit planning or patient outreach but only for a limited number of diseases and risk states	26%	38%	40%	38%	22%	25%	19%	25%	39%	27%	28%	34%	31%	57%	57%	18%	47%	33%	29%
4 to 6	Available to practice teams; not routinely used for pre-visit planning or patient outreach	35%	16%	12%	10%	26%	22%	23%	44%	19%	23%	28%	39%	19%	10%	8%	35%	16%	13%	6%
1 to 3	Not available to practice teams for pre-visit planning or patient outreach	31%	6%	3%	4%	12%	10%	12%	23%	9%	5%	2%	17%	0%	1%	1%	37%	5%	0%	15%
	N	469	470	466	467	341	334	355	64	64	64	64	73	74	74	74	62	62	61	62
A8	Comprehensive, evidence-based guidelines on prevention or chronic illness treatment																			
10 to 12	Guide the creation of individual-level patient reports to use during visits	18%	35%	35%	39%	35%	35%	38%	20%	28%	33%	44%	17%	28%	33%	35%	21%	31%	40%	53%
7 to 9	Available and integrated into care protocols and/or reminders	59%	59%	59%	57%	47%	56%	51%	67%	67%	56%	50%	72%	65%	64%	63%	58%	66%	55%	40%
4 to 6	Available to the team but do not influence care	17%	5%	5%	3%	14%	7%	8%	8%	3%	8%	3%	11%	6%	3%	1%	19%	3%	2%	5%
1 to 3	Not readily available	6%	1%	2%	1%	4%	1%	2%	5%	2%	3%	3%	0%	1%	0%	1%	2%	0%	3%	2%
	N	470	471	469	469	339	333	352	64	64	64	64	73	74	74	74	62	62	62	62
A9	Visits																			

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
10 to 12	Organized to address both acute and planned care needs; use tailored guideline-based information in team huddles to ensure patient needs are met at each encounter	24%	42%	49%	52%	39%	48%	51%	28%	41%	38%	48%	26%	49%	53%	50%	31%	55%	58%	74%
7 to 9	Organized around acute problems with attention to ongoing illness and prevention needs if time permits; practice uses subpopulation reports to proactively call groups of patients for planned care visits	40%	44%	43%	41%	34%	36%	30%	30%	44%	41%	34%	42%	38%	42%	44%	37%	34%	37%	24%
4 to 6	Organized around acute problems with attention to ongoing illness and prevention needs if time permits	35%	14%	8%	7%	26%	16%	17%	41%	16%	22%	17%	32%	13%	6%	6%	32%	11%	5%	2%
1 to 3	Largely focus on patient's acute problems	1%	0%	0%	0%	2%	0%	2%	2%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
	N	471	471	469	470	341	335	355	64	64	64	64	74	74	74	74	62	62	62	62
A10	Reminders to providers																			
10 to 12	Include general notification of the existence of chronic illness and specific information about guideline adherence at the time of individual patient encounters	32%	46%	53%	57%	46%	47%	53%	41%	48%	63%	56%	29%	31%	38%	44%	27%	40%	65%	65%
7 to 9	Include general notification of the existence of chronic illness and needed services through periodic reporting	37%	39%	37%	34%	30%	35%	28%	28%	25%	25%	33%	42%	54%	45%	47%	29%	53%	26%	29%
4 to 6	Include general notification of the existence of chronic illness; do not describe needed services at time of encounter	23%	13%	8%	7%	17%	13%	13%	27%	27%	8%	6%	17%	13%	15%	4%	35%	6%	8%	2%
1 to 3	Not available	9%	1%	2%	3%	8%	4%	5%	5%	0%	5%	5%	13%	3%	1%	4%	8%	0%	2%	5%
	N	468	469	468	469	339	332	352	64	64	64	64	74	73	74	74	62	62	62	62
A11	Nonphysician practice team members																			
10 to 12	Perform key clinical service roles matching abilities and credentials	43%	67%	73%	82%	60%	64%	66%	50%	67%	70%	81%	51%	81%	70%	68%	34%	58%	69%	77%
7 to 9	Provide some clinical services such as assessment or self-management support	29%	23%	22%	13%	18%	18%	15%	31%	27%	20%	13%	24%	15%	24%	29%	32%	32%	27%	13%
4 to 6	Primarily tasked with managing patient flow and triage	23%	8%	3%	4%	16%	12%	15%	16%	5%	8%	3%	15%	3%	3%	3%	27%	10%	3%	10%
1 to 3	Play a limited role in providing clinical care	5%	2%	1%	0%	5%	5%	4%	3%	2%	2%	3%	10%	1%	3%	0%	6%	0%	0%	0%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC							
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A12	N	471	470	469	470	339	333	353	64	64	64	64	74	74	74	74	62	62	62	62
	Medication reconciliation																			
	10 to 12	75%	81%	89%	94%	71%	81%	83%	75%	84%	89%	95%	76%	82%	90%	88%	84%	94%	94%	98%
	7 to 9	20%	17%	10%	6%	23%	14%	14%	22%	11%	11%	5%	22%	17%	8%	12%	16%	6%	6%	2%
	4 to 6	6%	2%	0%	0%	5%	5%	3%	3%	5%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%
	1 to 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	N	471	471	469	471	341	333	352	64	64	64	64	74	74	74	74	62	62	62	62
Risk-stratified care management																				
A16	Standard method or tools to stratify patients by risk level																			
	10 to 12	5%	60%	75%	73%	34%	38%	35%	6%	73%	78%	80%	1%	43%	76%	67%	8%	69%	71%	77%
	7 to 9	10%	35%	21%	23%	22%	22%	26%	11%	23%	14%	16%	13%	51%	23%	30%	10%	26%	27%	21%
	4 to 6	33%	5%	3%	3%	22%	27%	27%	33%	2%	5%	3%	31%	4%	1%	3%	32%	3%	2%	0%
	1 to 3	52%	1%	0%	0%	22%	13%	12%	50%	2%	3%	2%	56%	1%	0%	0%	50%	2%	0%	2%
	N	471	466	467	468	338	333	349	64	64	64	64	74	72	74	74	62	61	62	62
A17 ^a	Clinical care management services for high-risk patients																			
	10 to 12	20%	88%	88%	89%	37%	52%	49%	8%	86%	81%	88%	24%	96%	81%	84%	18%	77%	84%	82%
	7 to 9	12%	10%	7%	8%	23%	15%	24%	19%	13%	8%	6%	6%	3%	13%	13%	13%	19%	13%	11%
	4 to 6	23%	1%	3%	2%	18%	16%	13%	16%	2%	8%	3%	28%	0%	4%	0%	26%	0%	2%	5%
	1 to 3	45%	1%	1%	2%	22%	16%	15%	57%	0%	3%	3%	43%	1%	1%	3%	44%	3%	2%	2%
	N	469	468	466	470	402	330	354	63	63	63	64	74	73	74	74	62	62	61	62

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A18	Registry or panel-level data																			
10 to 12	Regularly available to assess and manage care for practice populations across a comprehensive set of diseases and risk states	9%	42%	44%	54%	32%	42%	33%	17%	50%	55%	49%	11%	46%	29%	42%	10%	24%	40%	48%
7 to 9	Regularly available to assess and manage care for practice populations for a limited number of diseases and risk states	31%	43%	47%	37%	30%	27%	26%	19%	41%	33%	30%	43%	43%	67%	51%	27%	63%	48%	42%
4 to 6	Available to assess and manage care for practice populations on an ad hoc basis	31%	13%	8%	7%	17%	15%	20%	34%	5%	6%	16%	28%	11%	4%	7%	32%	6%	11%	5%
1 to 3	Not available to assess or manage care for practice populations	29%	2%	2%	2%	22%	15%	21%	30%	5%	6%	5%	18%	0%	0%	0%	31%	6%	0%	5%
	N	470	471	469	469	337	330	351	64	64	64	63	74	74	74	73	62	62	62	62
Patient and caregiver engagement																				
A19 ^a	Assessing patient and family values and preferences																			
10 to 12	Done systematically and incorporated in planning and organizing care	15%	28%	34%	38%	36%	34%	38%	22%	22%	30%	33%	11%	32%	15%	32%	21%	24%	32%	31%
7 to 9	Done and incorporated in planning and organizing care on an ad hoc basis	46%	55%	53%	49%	44%	45%	43%	48%	58%	53%	48%	46%	53%	65%	45%	45%	50%	53%	56%
4 to 6	Done but not used in planning and organizing care	21%	15%	10%	11%	12%	14%	12%	19%	17%	14%	17%	15%	10%	16%	22%	15%	23%	13%	10%
1 to 3	Not done	17%	3%	3%	2%	9%	7%	7%	11%	3%	3%	2%	28%	6%	4%	1%	19%	3%	2%	3%
	N	471	470	468	467	402	333	353	64	64	64	63	74	74	74	74	62	62	62	62
A20	Involving patients in decision making and care																			
10 to 12	Systematically supported by practice teams trained in decision making techniques	15%	27%	35%	41%	33%	40%	43%	16%	19%	33%	41%	18%	36%	19%	35%	8%	27%	48%	45%
7 to 9	Supported and documented by practice teams	31%	49%	53%	49%	36%	36%	35%	31%	52%	41%	37%	28%	46%	60%	44%	47%	52%	40%	42%
4 to 6	Accomplished by provision of patient education materials or referrals to classes	51%	24%	12%	10%	30%	24%	21%	52%	28%	25%	22%	53%	18%	20%	21%	39%	21%	11%	13%
1 to 3	Not a priority	3%	0%	0%	0%	1%	0%	1%	2%	2%	0%	0%	1%	0%	0%	0%	6%	0%	0%	0%
	N	471	467	469	468	340	333	356	64	64	63	63	74	74	74	74	62	62	62	62

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A21	Patient comprehension of verbal and written materials																			
10 to 12	Assessed; accomplished by translation services or multilingual staff, and training staff in health literacy and communication techniques assuring that patients know how to manage conditions at home	10%	23%	25%	28%	25%	32%	31%	14%	16%	22%	28%	6%	24%	10%	17%	6%	21%	21%	34%
7 to 9	Assessed; accomplished by translation services or multilingual staff assuring materials and communications are at a level and language patients understand	33%	45%	46%	48%	30%	33%	33%	22%	35%	33%	42%	40%	39%	50%	58%	40%	48%	55%	34%
4 to 6	Assessed; accomplished by assuring materials are at a level and language patients understand	43%	27%	27%	21%	38%	33%	31%	53%	41%	44%	28%	40%	31%	36%	24%	48%	27%	23%	29%
1 to 3	Not assessed	14%	5%	3%	3%	7%	2%	5%	11%	8%	2%	2%	14%	6%	4%	1%	5%	3%	2%	3%
	N	471	468	470	471	341	334	350	64	63	64	64	74	73	73	74	62	62	62	62
A22	Self-management support																			
10 to 12	Provided by practice team members trained in patient empowerment and problem-solving methodologies	10%	23%	36%	36%	14%	18%	19%	8%	17%	27%	38%	8%	25%	47%	51%	5%	15%	32%	31%
7 to 9	Provided by goal setting and action planning with members of the practice team	25%	56%	51%	51%	44%	44%	42%	25%	64%	44%	38%	31%	54%	45%	41%	27%	51%	50%	51%
4 to 6	Accomplished by referral to self-management classes or educators	45%	12%	9%	7%	26%	25%	23%	53%	9%	19%	16%	35%	17%	4%	4%	48%	21%	18%	8%
1 to 3	Limited to the distribution of information (for example, pamphlets, booklets)	19%	10%	4%	6%	16%	13%	16%	14%	9%	11%	9%	26%	4%	4%	4%	19%	13%	0%	10%
	N	471	469	470	469	339	330	354	64	64	64	64	74	74	74	74	62	61	62	61
A23	Test results and care plans																			
10 to 12	Systematically communicated to patients in ways that are convenient to patients	40%	58%	70%	77%	67%	65%	71%	41%	48%	64%	73%	35%	57%	76%	85%	29%	56%	74%	70%
7 to 9	Systematically communicated to patients in a way that is convenient to the practice	49%	34%	27%	21%	26%	30%	25%	55%	33%	27%	25%	58%	40%	19%	15%	66%	34%	26%	30%
4 to 6	Communicated to patients based on an ad hoc approach	10%	7%	3%	2%	7%	5%	4%	5%	19%	9%	2%	7%	1%	4%	0%	5%	3%	0%	0%
1 to 3	Not communicated to patients	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	7%	0%	0%
	N	471	468	471	467	341	333	352	64	64	64	64	74	74	74	74	62	61	62	61

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A24	Feedback to practice from patient and family caregiver council																			
10 to 12	Consistently used to guide practice improvements and measure system performance and practice-level care interactions	17%	26%	37%	41%	32%	30%	31%	19%	33%	36%	45%	14%	35%	44%	53%	6%	26%	34%	25%
7 to 9	Collected regularly (at least quarterly) and incorporated into practice improvements on an ad hoc basis	20%	29%	27%	31%	18%	26%	26%	14%	16%	20%	20%	7%	54%	42%	37%	23%	33%	23%	25%
4 to 6	Collected on an ad hoc basis but not regularly incorporated into practice improvements	32%	8%	9%	6%	28%	25%	20%	33%	9%	6%	6%	44%	1%	4%	3%	37%	3%	3%	12%
1 to 3	Not collected	31%	37%	27%	21%	22%	19%	24%	33%	42%	38%	28%	35%	10%	10%	7%	34%	38%	40%	37%
	N	469	464	468	467	338	330	353	63	64	64	64	73	73	74	74	62	61	62	59
Coordination of care across the medical neighborhood																				
A14	Tracking of patient referrals to specialists																			
10 to 12	Consistently done for all patients	34%	47%	57%	54%	57%	65%	61%	47%	52%	59%	67%	31%	54%	49%	49%	26%	31%	50%	42%
7 to 9	Consistently done for high-risk patients	32%	33%	28%	25%	26%	23%	23%	27%	27%	22%	23%	39%	28%	29%	27%	31%	45%	29%	42%
4 to 6	Sometimes done	26%	18%	14%	18%	15%	12%	12%	22%	19%	17%	6%	19%	18%	22%	24%	29%	21%	19%	11%
1 to 3	Not generally done	8%	2%	1%	3%	3%	1%	3%	5%	3%	2%	3%	11%	0%	0%	0%	15%	3%	2%	5%
	N	470	470	470	470	341	332	355	64	64	64	64	74	74	74	73	62	62	62	62
A15 ^a	Care plans																			
10 to 12	Developed collaboratively with patients and families; include self-management and clinical goals; routinely recorded and used to guide subsequent care	16%	40%	43%	47%	41%	44%	43%	17%	25%	27%	48%	18%	32%	56%	45%	19%	35%	47%	44%
7 to 9	Developed collaboratively with patients and families; include self-management and clinical goals; not routinely recorded or used to guide subsequent care	35%	44%	46%	42%	30%	33%	24%	33%	52%	48%	38%	31%	53%	37%	52%	40%	45%	44%	44%
4 to 6	Developed and recorded but reflect only providers' priorities	33%	11%	8%	7%	19%	17%	24%	28%	14%	17%	11%	43%	8%	7%	1%	23%	18%	8%	11%
1 to 3	Not routinely developed or recorded	16%	5%	3%	4%	10%	6%	9%	22%	9%	8%	3%	8%	7%	0%	1%	18%	2%	2%	2%
	N	470	471	470	471	405	332	350	64	64	64	64	74	74	74	74	62	62	62	62

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC							
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A26	Referral relationships with medical and surgical specialists																			
10 to 12	Formalized with referral protocols or practice agreements with most or all medical and surgical specialist groups	16%	18%	25%	25%	37%	41%	45%	25%	13%	20%	27%	19%	14%	35%	30%	18%	10%	26%	21%
7 to 9	Formalized with referral protocols or practice agreements with many medical and surgical specialist groups	55%	22%	21%	23%	18%	28%	23%	56%	14%	23%	27%	53%	33%	18%	17%	50%	23%	26%	30%
4 to 6	Formalized with referral protocols or practice agreements with a few medical and surgical specialist groups	20%	24%	24%	23%	11%	9%	10%	13%	9%	25%	8%	15%	26%	32%	34%	18%	24%	27%	23%
1 to 3	Not formalized with referral protocols or practice agreements	10%	35%	30%	29%	35%	21%	23%	6%	64%	31%	39%	13%	26%	15%	19%	15%	44%	21%	26%
	N	468	471	470	469	339	334	352	64	64	64	64	74	74	73	74	62	62	62	61
A27	Behavioral health (mental health and chemical dependency) services																			
10 to 12	Readily available from behavioral health specialists who are on-site members of the care team or work in an organization with which the practice has a referral protocol or agreement	7%	20%	25%	31%	12%	16%	18%	2%	8%	19%	25%	14%	39%	57%	56%	5%	16%	15%	26%
7 to 9	Available from behavioral health specialists and generally timely and convenient	35%	29%	33%	26%	43%	34%	35%	41%	52%	36%	34%	25%	28%	22%	24%	43%	31%	34%	37%
4 to 6	Available from behavioral health specialists but neither timely nor convenient	41%	35%	34%	37%	36%	31%	35%	47%	25%	36%	33%	38%	25%	18%	18%	34%	42%	42%	24%
1 to 3	Difficult to obtain reliably	18%	16%	8%	6%	10%	19%	12%	11%	16%	9%	8%	24%	7%	3%	3%	18%	11%	10%	13%
	N	469	470	471	471	337	333	352	64	64	64	64	74	73	74	74	61	62	62	62
A28	Patients in need of specialty care, hospital care, or supportive community-based resources																			
10 to 12	Obtain needed referrals to partners with whom the practice has a relationship; relevant information is communicated in advance; timely follow-up after visit	36%	47%	51%	56%	56%	59%	55%	52%	63%	61%	59%	29%	59%	62%	69%	34%	47%	51%	53%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC							
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
7 to 9	Obtain needed referrals to partners with whom the practice has a relationship; relevant information is communicated in advance	50%	45%	45%	39%	29%	35%	36%	42%	28%	33%	36%	50%	37%	35%	30%	50%	44%	39%	44%
4 to 6	Obtain needed referrals to partners with whom the practice has a relationship	12%	8%	3%	4%	11%	4%	8%	6%	9%	5%	3%	21%	3%	1%	1%	13%	10%	8%	3%
1 to 3	Cannot reliably obtain needed referrals to partners with whom the practice has a relationship	2%	0%	1%	1%	5%	1%	1%	0%	0%	2%	2%	0%	1%	1%	0%	3%	0%	2%	0%
A29 ^a	N	471	469	470	471	340	334	351	64	64	64	64	74	73	74	74	62	62	61	62
10 to 12	Practice follow-up with patients seen in emergency room (ER) or hospital																			
10 to 12	Done routinely, because the practice has arrangements with ER and hospital to track patients and ensure follow-up is completed within a few days	25%	65%	77%	84%	53%	56%	54%	23%	75%	75%	80%	21%	61%	71%	72%	39%	63%	76%	81%
7 to 9	Occurs because the practice makes proactive efforts to identify patients	19%	27%	17%	13%	24%	19%	29%	16%	14%	19%	14%	21%	38%	14%	26%	23%	27%	13%	11%
4 to 6	Occurs only if the ER or hospital alerts the practice	51%	6%	6%	3%	21%	23%	16%	58%	10%	6%	5%	54%	1%	15%	1%	32%	6%	10%	8%
1 to 3	Generally does not occur, because information is not available to the primary care team	5%	2%	0%	0%	2%	1%	1%	3%	2%	0%	2%	4%	0%	0%	0%	6%	3%	2%	0%
A30	N	471	470	468	470	401	333	350	64	63	63	64	74	74	74	74	62	62	62	62
10 to 12	Linking patients to supportive community-based resources																			
10 to 12	Accomplished through active coordination between health system, community service agencies, and patients; accomplished by a designated staff person	7%	30%	34%	45%	24%	24%	28%	6%	42%	23%	36%	7%	39%	25%	47%	2%	25%	37%	35%
7 to 9	Accomplished through a designated staff person or resource responsible for connecting patients with community resources	24%	45%	50%	40%	25%	36%	33%	30%	28%	45%	41%	14%	42%	58%	39%	32%	34%	44%	37%
4 to 6	Limited to providing patients a list of identified community resources in an accessible format	54%	22%	13%	12%	40%	32%	32%	50%	25%	20%	16%	71%	17%	12%	11%	50%	34%	19%	21%
1 to 3	Not done systematically	15%	3%	4%	3%	11%	8%	6%	14%	5%	11%	8%	8%	3%	6%	3%	16%	7%	0%	6%
	N	470	465	469	469	339	333	353	64	64	64	64	74	74	74	74	62	61	62	62

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A31	Transmission of patient information when patients are referred to other providers																			
10 to 12	Done consistently and always contains a complete set of clinical information	37%	61%	66%	74%	65%	71%	79%	50%	81%	80%	84%	47%	74%	68%	81%	23%	39%	56%	60%
7 to 9	Done usually but does not always contain a complete set of clinical information	47%	31%	28%	23%	29%	24%	17%	44%	14%	16%	14%	39%	24%	29%	17%	52%	42%	31%	35%
4 to 6	Done sometimes but does not always contain a complete set of clinical information	14%	7%	4%	3%	6%	5%	2%	6%	2%	5%	2%	13%	3%	3%	3%	21%	19%	8%	3%
1 to 3	Not done consistently	1%	1%	1%	0%	0%	0%	1%	0%	3%	0%	0%	1%	0%	0%	0%	5%	0%	5%	2%
	N	471	471	471	470	341	334	351	64	64	64	64	74	74	74	74	62	62	62	62
A32	Receipt of information about patients from hospitals and ERs in the community																			
10 to 12	Consistently occurs within 24 hours after the event	14%	36%	53%	57%	29%	37%	35%	6%	28%	45%	58%	22%	31%	51%	60%	13%	34%	34%	45%
7 to 9	Occurs usually occurs within 72 hours after the event	46%	50%	38%	36%	51%	46%	46%	47%	52%	44%	33%	49%	65%	42%	40%	44%	44%	48%	45%
4 to 6	Occurs usually but often one week or longer after the event	23%	10%	5%	4%	15%	12%	11%	28%	13%	11%	6%	19%	1%	3%	0%	27%	11%	6%	5%
1 to 3	Does not occur consistently	17%	5%	5%	3%	6%	5%	8%	19%	8%	0%	3%	10%	3%	4%	0%	16%	11%	11%	5%
	N	471	469	470	471	340	333	355	64	64	64	64	74	73	74	74	62	62	62	62
A34	Practice knows the total cost to payers of medical care																			
10 to 12	For all patients	2%	5%	6%	8%	9%	8%	8%	3%	3%	3%	8%	1%	3%	4%	6%	0%	2%	5%	8%
7 to 9	For most patients	5%	18%	29%	28%	20%	21%	24%	6%	14%	32%	31%	8%	25%	47%	35%	3%	29%	19%	36%
4 to 6	For some patients	25%	52%	49%	49%	33%	40%	37%	25%	55%	41%	50%	22%	59%	41%	38%	37%	42%	56%	44%
1 to 3	For no patients	67%	26%	15%	14%	38%	30%	31%	66%	28%	24%	11%	68%	13%	8%	21%	60%	27%	19%	11%
	N	471	470	469	470	341	331	356	64	64	63	64	74	73	74	74	62	62	62	61
Continuous improvement driven by data																				
A35 ^a	Quality improvement (QI) activities																			
10 to 12	Based on a proven improvement strategy; used continuously in meeting organizational goals	24%	47%	50%	54%	41%	45%	50%	20%	50%	38%	48%	31%	48%	70%	63%	16%	48%	52%	61%
7 to 9	Based on a proven improvement strategy in reaction to specific problems	24%	38%	33%	33%	31%	28%	24%	27%	28%	36%	30%	25%	48%	21%	28%	21%	29%	24%	24%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
4 to 6	Conducted on an ad hoc basis in reaction to specific problems	42%	14%	13%	13%	24%	21%	23%	41%	19%	22%	19%	29%	4%	9%	9%	43%	21%	24%	13%
1 to 3	Not organized or supported consistently	10%	2%	3%	1%	4%	6%	3%	13%	3%	5%	3%	15%	0%	0%	0%	20%	2%	0%	2%
	N	470	469	466	469	402	331	351	64	64	64	64	74	73	73	73	61	62	62	62
A36	QI activities																			
10 to 12	Conducted by practice teams supported by a QI infrastructure with meaningful involvement of patients and families	5%	20%	21%	32%	26%	26%	28%	3%	19%	17%	30%	7%	24%	27%	36%	6%	8%	13%	21%
7 to 9	Conducted by all practice teams supported by a QI infrastructure	30%	50%	47%	48%	25%	32%	35%	29%	49%	50%	41%	29%	51%	58%	53%	28%	53%	48%	48%
4 to 6	Conducted by topic-specific QI committees	24%	14%	16%	10%	20%	13%	15%	21%	14%	11%	13%	26%	17%	11%	1%	13%	16%	16%	10%
1 to 3	Conducted by a centralized committee or department	41%	16%	16%	10%	30%	30%	22%	47%	17%	22%	17%	38%	8%	4%	9%	53%	23%	23%	21%
	N	431	465	469	470	338	334	350	58	63	64	64	71	73	73	74	47	62	62	62
A37	Performance measures																			
10 to 12	Comprehensive and available for the practice and individual providers and fed back to individual providers	37%	65%	76%	75%	50%	55%	51%	22%	62%	64%	72%	50%	64%	82%	74%	18%	61%	74%	76%
7 to 9	Comprehensive and available for the practice but not for individual providers	10%	17%	13%	15%	11%	17%	21%	11%	16%	19%	19%	10%	21%	7%	18%	19%	23%	15%	11%
4 to 6	Available for the practice but limited in scope	39%	17%	10%	9%	25%	21%	20%	58%	19%	14%	9%	35%	14%	10%	6%	37%	13%	11%	11%
1 to 3	Not available for the practice	14%	2%	1%	1%	14%	7%	7%	9%	3%	3%	0%	6%	1%	1%	3%	26%	3%	0%	2%
	N	471	470	471	471	337	329	354	64	63	64	64	74	74	74	74	62	62	62	62
A38	Reports of patient care experiences and care processes or outcomes																			
10 to 12	Routinely provided as feedback to practice teams; transparently reported externally to patients, other teams, and external agencies	11%	34%	37%	41%	22%	27%	32%	3%	22%	33%	32%	4%	25%	28%	44%	0%	26%	41%	50%
7 to 9	Routinely provided as feedback to practice teams and reported externally with team identities masked	8%	20%	29%	28%	16%	17%	12%	14%	20%	23%	29%	10%	8%	38%	26%	13%	32%	33%	24%
4 to 6	Routinely provided as feedback to practice teams but not reported externally	34%	42%	28%	27%	23%	28%	27%	23%	52%	36%	29%	36%	63%	30%	28%	24%	42%	20%	23%

Table D.8a (continued)

Question		CPC-wide							AR				CO				NJ			
		CPC				Comparison			CPC				CPC				CPC			
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
1 to 3	Not routinely available to practice teams	46%	5%	5%	5%	40%	28%	30%	59%	6%	8%	11%	50%	3%	4%	1%	63%	0%	7%	3%
	N	470	469	468	469	332	325	352	64	64	64	63	74	73	74	74	62	62	61	62
A39	Staff, resources, and time for QI activities																			
10 to 12	Fully available in the practice	5%	18%	22%	31%	22%	24%	24%	3%	20%	9%	28%	7%	20%	31%	34%	6%	21%	24%	32%
7 to 9	Generally available and usually at the level needed	25%	39%	48%	43%	30%	36%	32%	28%	41%	52%	45%	29%	52%	33%	42%	19%	33%	44%	47%
4 to 6	Occasionally available but limited in scope	51%	42%	28%	23%	34%	28%	37%	53%	36%	33%	20%	44%	27%	35%	24%	55%	44%	32%	18%
1 to 3	Not readily available in the practice	19%	2%	2%	2%	14%	12%	7%	16%	3%	6%	6%	19%	1%	1%	0%	19%	2%	0%	3%
	N	471	469	471	471	333	326	351	64	64	64	64	74	73	74	74	62	61	62	62
A40	Practice hiring and training processes																			
10 to 12	Support and sustain improvements in care through training and incentives focused on rewarding patient-centered care	11%	21%	24%	31%	22%	32%	28%	19%	20%	29%	37%	10%	20%	26%	38%	13%	16%	26%	23%
7 to 9	Place a priority on the ability of new and existing staff to improve care and create a patient-centered culture	36%	42%	52%	48%	46%	41%	44%	36%	42%	51%	41%	44%	41%	46%	51%	40%	49%	50%	52%
4 to 6	Reflect how potential hires will affect the culture and participate in QI activities	27%	25%	18%	14%	13%	17%	12%	22%	28%	19%	13%	28%	20%	18%	10%	24%	26%	16%	15%
1 to 3	Focus only on narrowly defined functions and requirements of each position	26%	12%	5%	7%	19%	10%	16%	23%	9%	2%	10%	18%	20%	10%	0%	23%	8%	8%	11%
	N	471	467	468	466	332	329	354	64	64	63	63	74	73	73	74	62	61	62	62
A41	Responsibility for conducting QI activities																			
10 to 12	Shared by all staff	15%	37%	42%	49%	31%	40%	38%	19%	36%	40%	53%	11%	47%	46%	52%	15%	35%	45%	46%
7 to 9	Assigned to an identified QI group that receives dedicated resources	28%	41%	33%	31%	23%	31%	24%	17%	44%	35%	23%	53%	33%	29%	31%	18%	39%	24%	30%
4 to 6	Assigned to a group without committed resources	26%	16%	19%	15%	20%	12%	21%	27%	9%	13%	11%	21%	18%	22%	16%	18%	13%	21%	15%
1 to 3	Not assigned to any specific group	30%	6%	5%	5%	26%	16%	17%	38%	11%	13%	13%	15%	1%	3%	1%	49%	13%	10%	10%
	N	470	470	468	468	331	326	353	64	64	63	64	74	74	72	74	61	62	62	61

Table D.8a (continued)

Question	CPC-wide							AR				CO				NJ				
	CPC				Comparison			CPC				CPC				CPC				
	2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	
Questions not included in the M-PCMH-A domains^b																				
A5	Scheduled phone or group visits with the physician, PA, NP, or nurse																			
10 to 12	Generally available; patients are regularly asked about their preferences for phone or group visits	n.a.	9%	7%	11%	7%	8%	7%	n.a.	6%	8%	8%	n.a.	0%	7%	3%	n.a.	2%	8%	15%
7 to 9	Generally available at a patient's request	n.a.	13%	20%	16%	11%	16%	21%	n.a.	16%	14%	16%	n.a.	13%	14%	11%	n.a.	10%	12%	15%
4 to 6	Available on a limited basis	n.a.	20%	21%	27%	17%	16%	16%	n.a.	22%	25%	27%	n.a.	13%	22%	40%	n.a.	23%	20%	31%
1 to 3	Not regularly available to practice patients	n.a.	58%	52%	47%	65%	61%	56%	n.a.	56%	53%	50%	n.a.	75%	57%	47%	n.a.	66%	60%	39%
	N	n.a.	469	468	470	341	335	355	n.a.	63	64	64	n.a.	74	74	74	n.a.	62	60	61
A13	Notification of patients of their laboratory and radiology results																			
10 to 12	Done consistently for abnormal and normal results	76%	80%	80%	83%	86%	85%	85%	67%	73%	81%	86%	90%	97%	78%	74%	79%	79%	79%	79%
7 to 9	Done consistently for abnormal results; sporadically done for normal results	24%	20%	20%	17%	14%	15%	14%	28%	27%	17%	14%	10%	3%	22%	26%	21%	21%	21%	21%
4 to 6	Done sometimes	1%	0%	0%	0%	0%	0%	1%	5%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
1 to 3	Not generally done	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	N	471	470	467	468	341	332	354	64	64	64	63	74	74	73	74	62	62	62	62
A25	Shared decision making aids used to help patients and providers jointly decide on treatment options																			
10 to 12	Consistently provided to patients for two or more clinical conditions; provision is tracked with run charts or other measures	n.a.	42%	56%	62%	21%	29%	25%	n.a.	31%	48%	56%	n.a.	79%	54%	56%	n.a.	52%	55%	67%
7 to 9	Consistently provided to patients for two or more clinical conditions, but provision is not formally tracked	n.a.	22%	30%	21%	25%	23%	35%	n.a.	41%	30%	24%	n.a.	10%	22%	24%	n.a.	29%	35%	26%
4 to 6	Sometimes provided to patients for one or more clinical conditions	n.a.	34%	13%	16%	41%	37%	29%	n.a.	27%	17%	17%	n.a.	11%	22%	20%	n.a.	18%	10%	7%
1 to 3	Not provided to patients	n.a.	2%	1%	0%	13%	11%	11%	n.a.	2%	5%	3%	n.a.	0%	3%	0%	n.a.	2%	0%	0%
	N	n.a.	471	471	469	341	332	355	n.a.	64	64	63	n.a.	74	74	74	n.a.	62	62	61

Table D.8a (continued)

Question		CPC-wide						AR				CO				NJ				
		CPC				Comparison		CPC				CPC				CPC				
		2012	2014	2015	2016	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A33	Timely receipt of information about patients after they visit specialists in the community																			
10 to 12	Occurs for all patients	n.a.	11%	15%	20%	16%	24%	22%	n.a.	11%	13%	17%	n.a.	4%	23%	26%	n.a.	8%	6%	10%
7 to 9	Occurs for most patients	n.a.	65%	68%	63%	68%	63%	60%	n.a.	55%	66%	63%	n.a.	76%	65%	71%	n.a.	68%	63%	69%
4 to 6	Occurs for some patients	n.a.	21%	16%	16%	13%	12%	17%	n.a.	28%	19%	19%	n.a.	15%	11%	3%	n.a.	24%	29%	21%
1 to 3	Does not occur consistently	n.a.	3%	1%	1%	3%	2%	2%	n.a.	6%	3%	2%	n.a.	4%	1%	0%	n.a.	0%	2%	0%
	N	n.a.	470	471	470	341	332	354	n.a.	64	64	64	n.a.	74	74	73	n.a.	62	62	62

Sources: CPC practice surveys administered to CPC practices October through December 2012, and to CPC and comparison practices April through July 2014, April through August 2015, and April through August 2016.

Note: Question numbers pertain to the 2016 CPC practice survey.

^a The 2014 sample size for comparison responses is larger than the sample sizes for the other questions because these six questions were asked on the short form version of 2014 practice survey administered to comparison practices. Short form versions were not administered to comparison practices in 2015 or 2016.

^b Four questions are not included in the composite scores for the seven M-PCMH-A domains because (1) three of these four questions were not asked in the first survey round (A5, A25, A33), and (2) one of the questions (A13) was determined to be not statistically related to any function of primary care delivery in our factor analysis.

n.a. = not applicable because the question was not asked in the given survey round; M-PCMH-A = Patient-Centered Medical Home Assessment modified for the CPC evaluation; PA = physician assistant; NP = nurse practitioner; ER = emergency room; EHR = electronic health record; QI = quality improvement.

Table D.8b. Distribution of CPC practice responses to M-PCMH-A questions in 2012, 2014, 2015, and 2016, by region (NY, OH/KY, OK, OR)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
Overall M-PCMH-A score and domains (scale: 1 [least advanced approach] - 12 [best approach])																	
Overall M-PCMH-A score																	
10 to 12	High	7%	9%	16%	19%	0%	24%	23%	57%	3%	16%	16%	16%	2%	9%	23%	20%
7 to <10	Medium high	18%	74%	80%	80%	55%	76%	77%	43%	15%	69%	79%	81%	48%	88%	72%	75%
4 to <7	Medium low	73%	17%	4%	1%	44%	0%	0%	0%	74%	15%	5%	3%	49%	3%	5%	5%
1 to <4	Low	1%	0%	0%	0%	1%	0%	0%	0%	8%	0%	0%	0%	2%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	61	62	66	66	66	66
A1-2 Continuity of care																	
10 to 12	High	52%	72%	66%	72%	64%	61%	53%	80%	50%	58%	89%	89%	38%	80%	69%	83%
7 to <10	Medium high	37%	25%	31%	27%	29%	36%	45%	20%	39%	39%	11%	11%	54%	20%	28%	14%
4 to <7	Medium low	9%	3%	3%	1%	5%	3%	1%	0%	10%	3%	0%	0%	6%	0%	3%	3%
1 to <4	Low	1%	0%	0%	0%	1%	0%	0%	0%	2%	0%	0%	0%	2%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
A3, 4, 6 Access to care																	
10 to 12	High	12%	54%	69%	72%	11%	63%	67%	92%	2%	56%	44%	71%	5%	62%	71%	71%
7 to <10	Medium high	43%	40%	25%	25%	57%	37%	31%	7%	10%	26%	45%	24%	65%	31%	28%	29%
4 to <7	Medium low	45%	4%	6%	3%	32%	0%	3%	1%	74%	13%	10%	5%	31%	8%	2%	0%
1 to <4	Low	0%	1%	0%	0%	0%	0%	0%	0%	15%	5%	2%	0%	0%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
A7-12 Planned care for chronic conditions and preventive care																	
10 to 12	High	12%	15%	25%	43%	3%	43%	44%	72%	3%	35%	30%	27%	2%	28%	46%	29%
7 to <10	Medium high	36%	64%	63%	46%	77%	57%	56%	28%	31%	48%	69%	71%	74%	66%	52%	69%
4 to <7	Medium low	52%	21%	12%	10%	20%	0%	0%	0%	65%	16%	2%	2%	23%	6%	2%	2%
1 to <4	Low	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	2%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	61	62	66	66	66	66
A16-18 Risk-stratified care management																	
10 to 12	High	3%	29%	61%	57%	0%	55%	79%	72%	2%	61%	67%	77%	0%	37%	58%	40%
7 to <10	Medium high	10%	57%	36%	43%	29%	45%	21%	28%	11%	39%	30%	19%	29%	58%	35%	54%
4 to <7	Medium low	36%	14%	3%	0%	37%	0%	0%	0%	19%	0%	3%	3%	43%	5%	6%	6%
1 to <4	Low	51%	0%	0%	0%	33%	0%	0%	0%	68%	0%	0%	0%	28%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	61	62	66	66	66	66
A19-24 Patient and caregiver engagement																	
10 to 12	High	9%	9%	16%	18%	0%	16%	12%	45%	3%	15%	15%	10%	2%	5%	14%	14%
7 to <10	Medium high	28%	49%	72%	72%	52%	71%	87%	55%	19%	63%	71%	79%	49%	66%	77%	75%
4 to <7	Medium low	61%	42%	12%	10%	41%	13%	1%	0%	66%	15%	15%	10%	45%	29%	9%	11%
1 to <4	Low	1%	0%	0%	0%	7%	0%	0%	0%	11%	8%	0%	2%	5%	0%	0%	0%

Table D.8b (continued)

Question	NY				OH/KY				OK				OR				
	CPC				CPC				CPC				CPC				
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	
A14-15, 26-32, 34	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
	Coordination of care across the medical neighborhood																
10 to 12	High	6%	7%	18%	10%	4%	12%	13%	40%	3%	10%	18%	8%	0%	6%	14%	17%
7 to <10	Medium high	30%	47%	76%	76%	31%	72%	84%	59%	29%	65%	66%	84%	57%	80%	78%	71%
4 to <7	Medium low	58%	46%	6%	13%	63%	16%	3%	1%	60%	26%	15%	8%	43%	14%	8%	12%
1 to <4	Low	6%	0%	0%	0%	3%	0%	0%	0%	8%	0%	2%	0%	0%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
A35-41	Continuous improvement driven by data																
10 to 12	High	7%	9%	16%	16%	1%	24%	25%	49%	3%	10%	18%	13%	0%	12%	26%	15%
7 to <10	Medium high	15%	41%	49%	65%	48%	60%	68%	29%	11%	63%	69%	68%	40%	65%	55%	63%
4 to <7	Medium low	58%	43%	33%	19%	39%	16%	7%	21%	34%	24%	13%	18%	52%	23%	14%	18%
1 to <4	Low	19%	7%	1%	0%	12%	0%	0%	0%	52%	3%	0%	2%	8%	0%	5%	3%
	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
Individual M-PCMH-A domains																	
Continuity of care																	
A1	Patient assignment to provider panels																
10 to 12	Assigned to panels; panel assignments are routinely used for scheduling and monitored to balance supply and demand	49%	58%	72%	71%	35%	48%	47%	75%	37%	56%	94%	63%	42%	82%	80%	86%
7 to 9	Assigned to panels; panel assignments are routinely used for scheduling	43%	38%	25%	25%	60%	47%	52%	24%	47%	39%	6%	37%	53%	18%	17%	11%
4 to 6	Assigned to panels; panel assignments are not routinely used by practice	6%	5%	3%	3%	5%	5%	0%	1%	10%	5%	0%	0%	3%	0%	3%	3%
1 to 3	Not assigned to panels	1%	0%	0%	1%	0%	0%	1%	0%	6%	0%	0%	0%	2%	0%	0%	0%
	N	68	67	68	68	75	75	75	75	62	62	62	62	65	66	66	66
A2	Patients are encouraged to see paneled provider and practice team																
10 to 12	By the practice team, and it is a priority in scheduling appointments; patients usually see their own provider/practice team	67%	84%	76%	81%	77%	69%	76%	88%	71%	76%	90%	94%	54%	83%	75%	91%
7 to 9	By the practice team, and it is a priority in scheduling appointments; patients commonly see other providers	24%	13%	22%	18%	16%	30%	24%	12%	27%	21%	10%	6%	40%	17%	25%	9%
4 to 6	By the practice team, but it is not a priority in appointment scheduling	7%	1%	1%	1%	5%	1%	0%	0%	0%	2%	0%	0%	3%	0%	0%	0%
1 to 3	Only at the patient's request	1%	1%	0%	0%	1%	0%	0%	0%	2%	2%	0%	0%	3%	0%	0%	0%
	N	68	68	68	68	75	74	75	74	62	62	62	62	66	66	66	66

Table D.8b (continued)

Question	NY				OH/KY				OK				OR				
	CPC				CPC				CPC				CPC				
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	
Access to care																	
A3	Appointment systems																
10 to 12	Flexible and can accommodate customized visit lengths, same-day visits, scheduled follow-up, and multiple provider visits	81%	80%	78%	81%	69%	83%	75%	88%	56%	73%	55%	81%	72%	83%	83%	75%
7 to 9	Provide flexibility and include capacity for same-day visits	19%	20%	19%	19%	31%	16%	25%	11%	37%	26%	40%	16%	28%	16%	17%	23%
4 to 6	Provide some flexibility in scheduling different visit lengths	0%	0%	1%	0%	0%	1%	0%	1%	5%	2%	5%	3%	0%	0%	0%	2%
1 to 3	Limited to a single office-visit type	0%	0%	1%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	2%	0%	0%
	N	68	67	68	68	75	75	75	75	62	62	62	62	66	64	66	66
A4	Communicating with the practice team through email, text messaging, or patient portal																
10 to 12	Generally available; patients are regularly asked about their communication preferences	5%	63%	78%	88%	12%	86%	85%	93%	2%	60%	75%	79%	8%	72%	85%	77%
7 to 9	Generally available at a patient's request	19%	9%	12%	8%	13%	8%	11%	3%	2%	16%	7%	8%	22%	22%	14%	23%
4 to 6	Available on a limited basis for practice patients	20%	20%	4%	3%	25%	5%	3%	3%	13%	5%	7%	11%	42%	0%	0%	0%
1 to 3	Not regularly available to practice patients	56%	7%	6%	2%	49%	0%	1%	1%	84%	19%	11%	2%	29%	6%	2%	0%
	N	65	68	68	67	75	74	75	75	62	62	61	62	66	66	66	66
A6 ^a	Patient after-hours access (24 hours, 7 days a week) to a physician, PA/NP, or nurse																
10 to 12	Available via email or phone directly with the practice team or a provider who has real-time access to the patient's electronic medical record	30%	47%	60%	61%	24%	68%	65%	81%	23%	63%	54%	45%	31%	62%	65%	72%
7 to 9	Provided by a coverage arrangement that shares necessary patient data and provides a summary to the practice	52%	47%	36%	30%	66%	29%	33%	19%	50%	26%	41%	52%	63%	37%	35%	28%
4 to 6	Available from a coverage arrangement that does not offer a standardized communication protocol back to the practice for urgent problems	18%	3%	2%	8%	9%	3%	1%	0%	18%	5%	3%	2%	6%	2%	0%	0%
1 to 3	Not available or limited to an answering machine	0%	3%	1%	0%	0%	0%	0%	0%	10%	6%	2%	2%	0%	0%	0%	0%
	N	68	68	68	67	74	75	75	75	62	62	61	62	66	66	66	66
Planned care for chronic conditions and preventive care																	
A7	Registries—either integrated in the EHR or free-standing—on individual patients																
10 to 12	Available and routinely used across a comprehensive set of diseases and risk states	13%	28%	32%	48%	9%	39%	48%	72%	5%	53%	54%	52%	3%	47%	55%	32%
7 to 9	Available to practice teams; routinely used for pre-visit planning or patient outreach but only for a limited number of diseases and risk states	19%	36%	37%	38%	19%	55%	51%	28%	23%	27%	33%	40%	45%	30%	36%	45%
4 to 6	Available to practice teams; not routinely used for pre-visit planning or patient outreach	37%	30%	23%	8%	19%	4%	1%	0%	38%	8%	7%	5%	35%	17%	8%	18%
1 to 3	Not available to practice teams for pre-visit planning or patient outreach	30%	6%	8%	6%	53%	3%	0%	0%	34%	11%	7%	3%	17%	6%	2%	5%
	N	68	68	66	67	75	75	75	72	61	62	61	62	66	65	65	66

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A8	Comprehensive, evidence-based guidelines on prevention or chronic illness treatment																
10 to 12	Guide the creation of individual-level patient reports to use during visits	10%	30%	23%	33%	31%	39%	39%	57%	6%	52%	30%	23%	17%	40%	45%	29%
7 to 9	Available and integrated into care protocols and/or reminders	52%	54%	64%	63%	49%	61%	59%	43%	45%	42%	64%	70%	72%	55%	51%	69%
4 to 6	Available to the team but do not influence care	27%	16%	14%	4%	3%	0%	0%	0%	44%	5%	5%	5%	8%	3%	5%	2%
1 to 3	Not readily available	10%	0%	0%	0%	17%	0%	3%	0%	5%	2%	2%	2%	3%	2%	0%	0%
	N	68	68	67	68	75	75	75	74	62	62	61	61	66	66	66	66
A9	Visits																
10 to 12	Organized to address both acute and planned care needs; use tailored guideline-based information in team huddles to ensure patient needs are met at each encounter	24%	40%	46%	42%	29%	37%	54%	63%	16%	42%	43%	36%	15%	32%	52%	51%
7 to 9	Organized around acute problems with attention to ongoing illness and prevention needs if time permits; practice uses subpopulation reports to proactively call groups of patients for planned care visits	28%	30%	43%	42%	53%	59%	41%	37%	31%	45%	52%	64%	54%	55%	43%	40%
4 to 6	Organized around acute problems with attention to ongoing illness and prevention needs if time permits	48%	30%	10%	16%	17%	4%	5%	0%	53%	13%	5%	0%	28%	12%	5%	9%
1 to 3	Largely focus on patient's acute problems	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%
	N	68	68	68	68	75	75	74	75	62	62	61	61	66	66	66	66
A10	Reminders to providers																
10 to 12	Include general notification of the existence of chronic illness and specific information about guideline adherence at the time of individual patient encounters	21%	35%	42%	48%	37%	80%	60%	91%	15%	44%	43%	39%	51%	42%	63%	49%
7 to 9	Include general notification of the existence of chronic illness and needed services through periodic reporting	42%	40%	43%	30%	48%	20%	37%	8%	42%	35%	52%	52%	22%	50%	26%	40%
4 to 6	Include general notification of the existence of chronic illness; do not describe needed services at time of encounter	18%	22%	10%	21%	9%	0%	3%	0%	37%	19%	2%	5%	21%	8%	11%	11%
1 to 3	Not available	18%	3%	4%	1%	5%	0%	0%	1%	6%	2%	3%	3%	6%	0%	0%	0%
	N	67	68	68	68	75	75	73	74	62	62	61	61	64	65	66	66
A11	Nonphysician practice team members																
10 to 12	Perform key clinical service roles matching abilities and credentials	33%	51%	60%	76%	48%	57%	76%	93%	27%	72%	90%	93%	54%	85%	80%	86%
7 to 9	Provide some clinical services such as assessment or self-management support	36%	18%	33%	13%	37%	37%	24%	7%	15%	18%	8%	5%	28%	11%	15%	12%
4 to 6	Primarily tasked with managing patient flow and triage	25%	25%	6%	10%	12%	5%	0%	0%	53%	7%	0%	2%	14%	5%	5%	2%
1 to 3	Play a limited role in providing clinical care	6%	6%	1%	0%	3%	0%	0%	0%	5%	3%	2%	0%	5%	0%	0%	0%
	N	68	68	68	68	75	75	74	75	62	61	61	61	66	66	66	66

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A12	Medication reconciliation																
10 to 12	Done regularly for all patients; documented in the patient's medical record	67%	67%	79%	91%	81%	73%	86%	96%	69%	92%	97%	98%	68%	75%	92%	91%
7 to 9	Done regularly for patients during care transitions; documented in the patient's medical record	21%	24%	21%	9%	15%	27%	14%	4%	21%	8%	2%	2%	22%	23%	8%	8%
4 to 6	Done intermittently, as needed	12%	9%	0%	0%	4%	0%	0%	0%	10%	0%	2%	0%	11%	2%	0%	2%
1 to 3	Not done	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	N	68	68	68	68	75	75	74	75	62	62	61	62	66	66	66	66
Risk-stratified care management																	
A16	Standard method or tools to stratify patients by risk level																
10 to 12	Available; consistently used and integrated into all aspects of care delivery	9%	72%	82%	75%	5%	56%	89%	89%	6%	69%	83%	85%	0%	37%	46%	39%
7 to 9	Available; consistently used to stratify all patients but inconsistently integrated into all aspects of care delivery	10%	25%	14%	25%	7%	38%	9%	11%	5%	29%	15%	10%	14%	46%	49%	52%
4 to 6	Available; not consistently used to stratify all patients	31%	3%	5%	0%	45%	5%	1%	0%	21%	2%	2%	5%	34%	17%	5%	9%
1 to 3	Not available	49%	0%	0%	0%	43%	0%	0%	0%	68%	0%	0%	0%	52%	0%	0%	0%
	N	68	68	67	68	75	73	74	74	62	62	60	61	66	66	66	65
A17 ^a	Clinical care management services for high-risk patients																
10 to 12	Systematically provided by care managers who are practice team members	6%	73%	87%	88%	27%	96%	99%	99%	6%	95%	95%	97%	46%	89%	89%	86%
7 to 9	Provided by external care managers who regularly communicate with the care team	21%	20%	10%	10%	11%	3%	1%	1%	10%	5%	2%	0%	8%	11%	5%	12%
4 to 6	Provided by external care managers with limited connection to the practice	26%	6%	3%	1%	28%	1%	0%	0%	10%	0%	2%	2%	28%	0%	6%	0%
1 to 3	Not available	47%	0%	0%	0%	35%	0%	0%	0%	74%	0%	2%	2%	18%	0%	0%	2%
	N	67	67	68	68	75	75	74	74	62	62	60	62	66	66	66	66
A18	Registry or panel-level data																
10 to 12	Regularly available to assess and manage care for practice populations across a comprehensive set of diseases and risk states	5%	18%	41%	61%	11%	56%	55%	71%	8%	40%	34%	68%	5%	54%	52%	38%
7 to 9	Regularly available to assess and manage care for practice populations for a limited number of diseases and risk states	26%	36%	35%	30%	17%	39%	45%	29%	27%	53%	56%	23%	57%	31%	42%	52%
4 to 6	Available to assess and manage care for practice populations on an ad hoc basis	21%	42%	23%	9%	44%	5%	0%	0%	19%	6%	5%	6%	34%	14%	5%	9%
1 to 3	Not available to assess or manage care for practice populations	48%	4%	2%	0%	28%	0%	0%	0%	45%	0%	5%	3%	5%	2%	2%	0%
	N	67	68	67	68	75	75	75	75	62	62	61	62	66	66	66	66

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
Patient and caregiver engagement																	
A19 ^a	Assessing patient and family values and preferences																
10 to 12	Done systematically and incorporated in planning and organizing care	16%	21%	30%	45%	17%	31%	47%	51%	10%	47%	53%	49%	11%	17%	35%	22%
7 to 9	Done and incorporated in planning and organizing care on an ad hoc basis	45%	61%	56%	46%	33%	61%	47%	46%	44%	34%	40%	33%	66%	63%	55%	72%
4 to 6	Done but not used in planning and organizing care	25%	15%	12%	7%	36%	5%	5%	1%	26%	16%	3%	15%	12%	18%	6%	6%
1 to 3	Not done	13%	3%	2%	1%	13%	3%	1%	1%	21%	3%	3%	3%	11%	2%	3%	0%
	N	68	68	67	68	75	74	73	74	62	62	62	61	66	66	66	65
A20	Involving patients in decision making and care																
10 to 12	Systematically supported by practice teams trained in decision making techniques	15%	24%	31%	39%	25%	29%	37%	60%	11%	27%	45%	38%	11%	25%	33%	23%
7 to 9	Supported and documented by practice teams	25%	39%	63%	52%	32%	60%	63%	39%	23%	47%	47%	59%	34%	45%	55%	73%
4 to 6	Accomplished by provision of patient education materials or referrals to classes	58%	37%	6%	9%	40%	11%	0%	1%	63%	26%	8%	3%	54%	31%	13%	3%
1 to 3	Not a priority	1%	0%	0%	0%	3%	0%	0%	0%	3%	0%	0%	0%	2%	0%	0%	0%
	N	68	66	68	68	75	73	75	75	62	62	62	61	66	66	65	65
A21	Patient comprehension of verbal and written materials																
10 to 12	Assessed; accomplished by translation services or multilingual staff, and training staff in health literacy and communication techniques assuring that patients know how to manage conditions at home	10%	18%	25%	35%	4%	17%	27%	36%	3%	31%	45%	18%	31%	34%	29%	29%
7 to 9	Assessed; accomplished by translation services or multilingual staff assuring materials and communications are at a level and language patients understand	22%	39%	42%	43%	40%	67%	59%	43%	19%	31%	26%	61%	43%	49%	52%	52%
4 to 6	Assessed; accomplished by assuring materials are at a level and language patients understand	49%	32%	34%	20%	43%	12%	15%	17%	52%	39%	21%	15%	15%	12%	15%	12%
1 to 3	Not assessed	18%	11%	0%	1%	13%	4%	0%	4%	26%	0%	8%	6%	11%	5%	3%	6%
	N	68	67	68	68	75	75	75	75	62	62	62	62	66	66	66	66
A22	Self-management support																
10 to 12	Provided by practice team members trained in patient empowerment and problem-solving methodologies	12%	24%	25%	27%	23%	28%	43%	56%	3%	29%	46%	24%	11%	18%	32%	23%
7 to 9	Provided by goal setting and action planning with members of the practice team	15%	45%	63%	55%	24%	69%	56%	44%	15%	47%	38%	66%	40%	60%	58%	64%
4 to 6	Accomplished by referral to self-management classes or educators	43%	8%	3%	10%	32%	3%	1%	0%	66%	13%	13%	6%	43%	12%	8%	6%
1 to 3	Limited to the distribution of information (for example, pamphlets, booklets)	30%	23%	9%	7%	21%	0%	0%	0%	16%	11%	3%	3%	6%	9%	2%	6%
	N	68	67	68	68	75	75	75	75	62	62	61	62	66	66	66	65

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A23	Test results and care plans																
10 to 12	Systematically communicated to patients in ways that are convenient to patients	40%	45%	64%	76%	67%	76%	89%	81%	32%	66%	52%	87%	32%	58%	63%	63%
7 to 9	Systematically communicated to patients in a way that is convenient to the practice	37%	51%	31%	21%	24%	23%	11%	19%	55%	21%	44%	12%	55%	34%	35%	29%
4 to 6	Communicated to patients based on an ad hoc approach	21%	4%	4%	3%	9%	1%	0%	0%	11%	13%	5%	2%	12%	8%	2%	8%
1 to 3	Not communicated to patients	1%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
	N	68	68	68	67	75	75	75	75	62	61	62	60	66	65	66	66
A24	Feedback to practice from patient and family caregiver council																
10 to 12	Consistently used to guide practice improvements and measure system performance and practice-level care interactions	13%	19%	30%	32%	39%	27%	35%	39%	10%	23%	27%	55%	11%	19%	51%	38%
7 to 9	Collected regularly (at least quarterly) and incorporated into practice improvements on an ad hoc basis	19%	40%	33%	35%	29%	12%	27%	47%	29%	23%	13%	11%	22%	22%	29%	37%
4 to 6	Collected on an ad hoc basis but not regularly incorporated into practice improvements	42%	12%	8%	11%	19%	11%	5%	1%	19%	8%	35%	5%	28%	11%	2%	8%
1 to 3	Not collected	25%	30%	29%	23%	13%	49%	33%	13%	42%	46%	25%	29%	40%	48%	18%	17%
	N	68	68	67	67	75	73	75	75	62	61	60	62	66	64	66	66
Coordination of care across the medical neighborhood																	
A14	Tracking of patient referrals to specialists																
10 to 12	Consistently done for all patients	29%	47%	51%	51%	32%	44%	63%	71%	42%	56%	77%	42%	34%	48%	49%	51%
7 to 9	Consistently done for high-risk patients	35%	35%	37%	37%	27%	41%	32%	19%	27%	15%	8%	8%	38%	35%	37%	22%
4 to 6	Sometimes done	30%	13%	12%	12%	36%	15%	5%	11%	24%	28%	13%	42%	20%	14%	9%	20%
1 to 3	Not generally done	6%	4%	0%	0%	5%	0%	0%	0%	6%	2%	2%	8%	8%	3%	5%	8%
	N	67	68	68	68	75	75	75	75	62	61	61	62	66	66	66	66
A15 ^a	Care plans																
10 to 12	Developed collaboratively with patients and families; include self-management and clinical goals; routinely recorded and used to guide subsequent care	19%	51%	36%	31%	14%	45%	55%	83%	13%	58%	46%	50%	14%	32%	32%	25%
7 to 9	Developed collaboratively with patients and families; include self-management and clinical goals; not routinely recorded or used to guide subsequent care	16%	28%	49%	51%	51%	44%	45%	17%	35%	35%	36%	35%	34%	54%	65%	62%
4 to 6	Developed and recorded but reflect only providers' priorities	33%	10%	13%	9%	27%	8%	0%	0%	40%	5%	8%	3%	35%	12%	3%	14%
1 to 3	Not routinely developed or recorded	31%	11%	1%	9%	8%	3%	0%	0%	11%	2%	10%	11%	17%	2%	0%	0%
	N	68	68	68	68	74	75	75	75	62	62	61	62	66	66	66	66

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A26	Referral relationships with medical and surgical specialists																
10 to 12	Formalized with referral protocols or practice agreements with most or all medical and surgical specialist groups	19%	19%	24%	12%	9%	23%	25%	32%	11%	31%	18%	27%	10%	18%	25%	22%
7 to 9	Formalized with referral protocols or practice agreements with many medical and surgical specialist groups	40%	19%	18%	30%	52%	19%	20%	24%	63%	18%	18%	8%	69%	29%	22%	26%
4 to 6	Formalized with referral protocols or practice agreements with a few medical and surgical specialist groups	25%	21%	26%	42%	31%	40%	16%	22%	18%	21%	11%	11%	16%	25%	32%	18%
1 to 3	Not formalized with referral protocols or practice agreements	15%	41%	32%	16%	8%	19%	39%	22%	8%	31%	53%	53%	5%	28%	22%	34%
	N	68	68	68	68	75	75	75	74	62	62	62	62	63	66	66	66
A27	Behavioral health (mental health and chemical dependency) services																
10 to 12	Readily available from behavioral health specialists who are on-site members of the care team or work in an organization with which the practice has a referral protocol or agreement	3%	10%	9%	12%	4%	7%	5%	11%	8%	8%	16%	27%	14%	51%	51%	60%
7 to 9	Available from behavioral health specialists and generally timely and convenient	40%	24%	49%	28%	35%	19%	16%	28%	31%	29%	55%	18%	29%	23%	25%	17%
4 to 6	Available from behavioral health specialists but neither timely nor convenient	43%	43%	31%	59%	40%	45%	69%	53%	36%	47%	21%	45%	46%	18%	20%	22%
1 to 3	Difficult to obtain reliably	13%	22%	12%	1%	21%	29%	9%	8%	25%	16%	8%	10%	11%	8%	5%	2%
	N	68	68	68	68	75	75	75	75	61	62	62	62	66	66	66	66
A28	Patients in need of specialty care, hospital care, or supportive community-based resources																
10 to 12	Obtain needed referrals to partners with whom the practice has a relationship; relevant information is communicated in advance; timely follow-up after visit	42%	32%	48%	46%	33%	39%	40%	60%	31%	43%	44%	42%	32%	49%	49%	57%
7 to 9	Obtain needed referrals to partners with whom the practice has a relationship; relevant information is communicated in advance	49%	43%	48%	42%	52%	61%	60%	39%	42%	52%	52%	48%	66%	46%	45%	38%
4 to 6	Obtain needed referrals to partners with whom the practice has a relationship	9%	25%	3%	10%	12%	0%	0%	1%	21%	5%	3%	8%	2%	5%	5%	5%
1 to 3	Cannot reliably obtain needed referrals to partners with whom the practice has a relationship	0%	0%	1%	1%	3%	0%	0%	0%	6%	0%	2%	2%	0%	0%	2%	0%
	N	68	68	68	68	75	75	75	75	62	61	62	62	66	66	66	66

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A29 ^a	Practice follow-up with patients seen in emergency room (ER) or hospital																
10 to 12	Done routinely, because the practice has arrangements with ER and hospital to track patients and ensure follow-up is completed within a few days	24%	63%	78%	84%	21%	63%	88%	97%	16%	60%	70%	85%	34%	71%	82%	86%
7 to 9	Occurs because the practice makes proactive efforts to identify patients	22%	29%	22%	16%	21%	35%	11%	3%	18%	26%	23%	8%	14%	18%	17%	14%
4 to 6	Occurs only if the ER or hospital alerts the practice	46%	1%	0%	0%	56%	3%	1%	0%	58%	15%	7%	6%	48%	9%	0%	0%
1 to 3	Generally does not occur, because information is not available to the primary care team	7%	6%	0%	0%	1%	0%	0%	0%	8%	0%	0%	0%	5%	2%	2%	0%
	N	68	68	68	68	75	75	74	74	62	62	61	62	66	66	66	66
A30	Linking patients to supportive community-based resources																
10 to 12	Accomplished through active coordination between health system, community service agencies, and patients; accomplished by a designated staff person	13%	21%	39%	47%	14%	39%	47%	61%	5%	29%	27%	48%	2%	13%	35%	35%
7 to 9	Accomplished through a designated staff person or resource responsible for connecting patients with community resources	15%	34%	44%	44%	14%	59%	49%	32%	21%	48%	52%	38%	48%	67%	55%	51%
4 to 6	Limited to providing patients a list of identified community resources in an accessible format	58%	38%	15%	8%	61%	1%	3%	7%	42%	21%	16%	13%	43%	19%	8%	12%
1 to 3	Not done systematically	13%	7%	2%	2%	12%	0%	1%	0%	32%	2%	5%	2%	8%	2%	2%	2%
	N	68	66	67	67	74	74	74	75	62	62	62	61	66	64	66	66
A31	Transmission of patient information when patients are referred to other providers																
10 to 12	Done consistently and always contains a complete set of clinical information	49%	48%	60%	74%	19%	29%	65%	81%	34%	73%	58%	56%	42%	89%	77%	82%
7 to 9	Done usually but does not always contain a complete set of clinical information	31%	43%	31%	23%	68%	57%	32%	16%	47%	26%	37%	39%	48%	11%	22%	18%
4 to 6	Done sometimes but does not always contain a complete set of clinical information	16%	9%	9%	3%	13%	13%	3%	3%	19%	0%	3%	5%	11%	0%	2%	0%
1 to 3	Not done consistently	3%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%
	N	68	68	68	68	75	75	75	75	62	62	62	61	66	66	66	66
A32	Receipt of information about patients from hospitals and ERs in the community																
10 to 12	Consistently occurs within 24 hours after the event	12%	23%	45%	27%	21%	39%	67%	77%	5%	39%	53%	61%	14%	57%	69%	68%
7 to 9	Occurs usually occurs within 72 hours after the event	54%	51%	36%	57%	45%	59%	33%	21%	37%	40%	32%	26%	48%	32%	29%	28%
4 to 6	Occurs usually but often one week or longer after the event	22%	24%	14%	9%	29%	1%	0%	1%	27%	16%	2%	6%	9%	5%	2%	3%
1 to 3	Does not occur consistently	12%	1%	5%	7%	4%	0%	0%	0%	31%	5%	13%	6%	29%	6%	0%	2%
	N	68	68	67	68	75	74	75	75	62	62	62	62	66	66	66	66

Table D.8b (continued)

Question		NY				OH/KY				OK				OR			
		CPC				CPC				CPC				CPC			
		2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A34	Practice knows the total cost to payers of medical care																
10 to 12	For all patients	6%	6%	15%	10%	1%	5%	3%	16%	2%	8%	10%	6%	2%	8%	6%	3%
7 to 9	For most patients	4%	7%	17%	18%	3%	15%	35%	36%	5%	27%	34%	18%	5%	9%	18%	22%
4 to 6	For some patients	21%	54%	56%	54%	21%	57%	43%	43%	16%	35%	47%	60%	37%	55%	63%	57%
1 to 3	For no patients	69%	33%	12%	18%	75%	23%	20%	5%	77%	29%	10%	16%	57%	28%	12%	18%
	N	68	68	67	68	75	75	75	75	62	62	62	62	66	66	66	66
Continuous improvement driven by data																	
A35 ^a	Quality improvement (QI) activities																
10 to 12	Based on a proven improvement strategy; used continuously in meeting organizational goals	19%	27%	37%	53%	35%	53%	52%	65%	15%	40%	41%	32%	29%	60%	62%	49%
7 to 9	Based on a proven improvement strategy in reaction to specific problems	15%	36%	36%	32%	40%	43%	48%	31%	15%	48%	44%	52%	26%	29%	23%	32%
4 to 6	Conducted on an ad hoc basis in reaction to specific problems	63%	32%	16%	15%	23%	4%	0%	4%	58%	10%	13%	11%	42%	8%	12%	18%
1 to 3	Not organized or supported consistently	3%	6%	11%	0%	3%	0%	0%	0%	13%	2%	2%	5%	3%	3%	3%	0%
	N	68	67	65	68	75	75	75	74	62	62	61	62	66	66	66	66
A36	QI activities																
10 to 12	Conducted by practice teams supported by a QI infrastructure with meaningful involvement of patients and families	10%	16%	14%	28%	3%	20%	20%	47%	5%	21%	23%	26%	3%	28%	35%	31%
7 to 9	Conducted by all practice teams supported by a QI infrastructure	16%	31%	51%	46%	41%	56%	45%	45%	18%	58%	29%	52%	44%	50%	45%	51%
4 to 6	Conducted by topic-specific QI committees	23%	28%	10%	15%	32%	4%	34%	7%	19%	3%	16%	13%	32%	19%	12%	12%
1 to 3	Conducted by a centralized committee or department	51%	25%	25%	10%	25%	20%	1%	1%	58%	18%	32%	8%	21%	3%	8%	6%
	N	62	65	68	68	73	75	74	75	57	62	62	61	63	65	66	66
A37	Performance measures																
10 to 12	Comprehensive and available for the practice and individual providers and fed back to individual providers	30%	35%	57%	64%	55%	83%	93%	95%	24%	71%	76%	79%	58%	78%	85%	65%
7 to 9	Comprehensive and available for the practice but not for individual providers	3%	18%	31%	24%	3%	15%	5%	3%	11%	16%	11%	11%	12%	9%	8%	20%
4 to 6	Available for the practice but limited in scope	49%	46%	12%	12%	36%	3%	1%	3%	27%	13%	13%	8%	28%	11%	8%	14%
1 to 3	Not available for the practice	18%	1%	0%	0%	7%	0%	0%	0%	37%	0%	0%	2%	2%	2%	0%	2%
	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
A38	Reports of patient care experiences and care processes or outcomes																
10 to 12	Routinely provided as feedback to practice teams; transparently reported externally to patients, other teams, and external agencies	13%	29%	35%	33%	27%	73%	51%	67%	5%	27%	37%	27%	25%	26%	34%	29%
7 to 9	Routinely provided as feedback to practice teams and reported externally with team identities masked	7%	12%	23%	29%	1%	3%	25%	9%	5%	32%	29%	45%	9%	35%	34%	34%
4 to 6	Routinely provided as feedback to practice teams but not reported externally	40%	43%	42%	33%	41%	24%	24%	23%	35%	35%	26%	23%	35%	32%	20%	29%
1 to 3	Not routinely available to practice teams	39%	16%	1%	5%	31%	0%	0%	1%	55%	5%	8%	5%	31%	6%	11%	8%

Table D.8b (continued)

Question	NY				OH/KY				OK				OR				
	CPC				CPC				CPC				CPC				
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	
A39	N	68	67	67	67	74	75	75	75	62	62	62	62	66	66	65	66
	Staff, resources, and time for QI activities																
10 to 12	Fully available in the practice	10%	12%	22%	25%	4%	21%	19%	48%	5%	21%	35%	27%	0%	9%	14%	23%
7 to 9	Generally available and usually at the level needed	18%	25%	31%	49%	44%	29%	69%	24%	13%	50%	53%	56%	18%	42%	51%	45%
4 to 6	Occasionally available but limited in scope	49%	60%	45%	25%	39%	49%	12%	28%	47%	27%	10%	15%	74%	48%	31%	29%
1 to 3	Not readily available in the practice	22%	3%	3%	1%	13%	0%	0%	0%	35%	2%	2%	2%	8%	2%	5%	3%
A40	N	68	68	68	68	75	75	75	75	62	62	62	62	66	66	66	66
	Practice hiring and training processes																
10 to 12	Support and sustain improvements in care through training and incentives focused on rewarding patient-centered care	13%	12%	27%	19%	5%	32%	25%	53%	6%	27%	21%	23%	9%	22%	17%	23%
7 to 9	Place a priority on the ability of new and existing staff to improve care and create a patient-centered culture	46%	35%	54%	58%	37%	45%	52%	28%	15%	37%	60%	53%	31%	48%	55%	55%
4 to 6	Reflect how potential hires will affect the culture and participate in QI activities	34%	46%	16%	15%	15%	19%	21%	19%	26%	10%	8%	10%	45%	23%	27%	16%
1 to 3	Focus only on narrowly defined functions and requirements of each position	6%	7%	3%	7%	43%	4%	1%	0%	53%	26%	11%	15%	15%	8%	2%	6%
A41	N	68	68	68	68	75	73	75	72	62	62	62	62	66	66	65	65
	Responsibility for conducting QI activities																
10 to 12	Shared by all staff	13%	21%	33%	47%	15%	41%	37%	61%	13%	39%	50%	39%	22%	37%	46%	43%
7 to 9	Assigned to an identified QI group that receives dedicated resources	19%	43%	39%	35%	47%	49%	36%	16%	10%	36%	40%	45%	28%	42%	29%	40%
4 to 6	Assigned to a group without committed resources	24%	28%	24%	12%	29%	5%	25%	23%	29%	18%	8%	10%	37%	18%	18%	17%
1 to 3	Not assigned to any specific group	43%	7%	4%	6%	9%	4%	1%	0%	48%	7%	2%	6%	14%	3%	6%	0%
	N	68	68	68	67	75	75	75	74	62	61	62	62	66	66	66	66
Questions not included in the M-PCMH-A domains^b																	
A5	Scheduled phone or group visits with the physician, PA, NP, or nurse																
10 to 12	Generally available; patients are regularly asked about their preferences for phone or group visits	n.a.	12%	9%	15%	n.a.	19%	9%	12%	n.a.	18%	0%	13%	n.a.	5%	8%	9%
7 to 9	Generally available at a patient's request	n.a.	11%	28%	10%	n.a.	16%	12%	23%	n.a.	11%	34%	10%	n.a.	17%	25%	25%
4 to 6	Available on a limited basis	n.a.	18%	16%	27%	n.a.	17%	24%	27%	n.a.	13%	5%	5%	n.a.	32%	34%	31%
1 to 3	Not regularly available to practice patients	n.a.	59%	46%	48%	n.a.	48%	55%	39%	n.a.	58%	61%	73%	n.a.	46%	34%	35%
	N	n.a.	67	68	68	n.a.	75	75	75	n.a.	62	61	62	n.a.	66	66	66
A13	Notification of patients of their laboratory and radiology results																
10 to 12	Done consistently for abnormal and normal results	66%	88%	73%	77%	76%	80%	72%	93%	81%	77%	90%	84%	69%	65%	86%	89%
7 to 9	Done consistently for abnormal results; sporadically done for normal results	33%	12%	26%	23%	24%	20%	28%	7%	19%	21%	10%	16%	31%	35%	14%	11%
4 to 6	Done sometimes	0%	0%	2%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
1 to 3	Not generally done	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	N	68	67	67	67	75	75	74	75	62	62	61	61	66	66	66	66

Table D.8b (continued)

Question	NY				OH/KY				OK				OR			
	CPC				CPC				CPC				CPC			
	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016	2012	2014	2015	2016
A25	Shared decision making aids used to help patients and providers jointly decide on treatment options															
10 to 12	n.a.	38%	59%	71%	n.a.	15%	67%	81%	n.a.	35%	39%	53%	n.a.	45%	68%	49%
7 to 9	n.a.	21%	30%	16%	n.a.	27%	28%	13%	n.a.	11%	45%	11%	n.a.	14%	22%	32%
4 to 6	n.a.	40%	11%	13%	n.a.	59%	5%	5%	n.a.	50%	16%	35%	n.a.	34%	9%	18%
1 to 3	n.a.	1%	0%	0%	n.a.	0%	0%	0%	n.a.	3%	0%	0%	n.a.	8%	2%	0%
	N	68	68	68	n.a.	75	75	75	n.a.	62	62	62	n.a.	66	66	66
A33	Timely receipt of information about patients after they visit specialists in the community															
10 to 12	n.a.	14%	15%	16%	n.a.	9%	13%	37%	n.a.	19%	13%	10%	n.a.	15%	18%	23%
7 to 9	n.a.	72%	70%	63%	n.a.	69%	76%	55%	n.a.	45%	60%	65%	n.a.	69%	74%	55%
4 to 6	n.a.	14%	15%	21%	n.a.	21%	11%	8%	n.a.	31%	24%	21%	n.a.	12%	8%	20%
1 to 3	n.a.	0%	0%	0%	n.a.	0%	0%	0%	n.a.	5%	3%	5%	n.a.	3%	0%	2%
	N	67	68	68	n.a.	75	75	75	n.a.	62	62	62	n.a.	66	66	66

Sources: CPC practice surveys administered to CPC practices October through December 2012, and to CPC and comparison practices April through July 2014, April through August 2015, and April through August 2016.

Note: Question numbers pertain to the 2016 CPC practice survey.

^a The 2014 sample size for comparison responses is larger than the sample sizes for the other questions because these six questions were asked on the short form version of 2014 practice survey administered to comparison practices. Short form versions were not administered to comparison practices in 2015 or 2016.

^b Four questions are not included in the composite scores for the seven M-PCMH-A domains because (1) three of these four questions were not asked in the first survey round (A5, A25, A33), and (2) one of the questions (A13) was determined to be not statistically related to any function of primary care delivery in our factor analysis.

n.a. = not applicable because the question was not asked in the given survey round; M-PCMH-A = Patient-Centered Medical Home Assessment modified for the CPC evaluation; PA = physician assistant; NP = nurse practitioner; ER = emergency room; EHR = electronic health record; QI = quality improvement.

Table D.9a. CPC and comparison practice infrastructure in 2014, 2015, and 2016, overall and by region (AR and CO)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Practice characteristics												
B1 Medical organization that employs clinicians at this practice site ^a												
Independent solo or two clinician practice	27%	24%	20%	16%	18%	18%	34%	33%	34%	14%	15%	15%
Independent group practice (3 or more clinicians)	36%	35%	37%	33%	33%	31%	20%	22%	25%	54%	55%	52%
Group or staff model HMO	3%	2%	0%	2%	0%	1%	0%	0%	2%	0%	0%	0%
Network of clinician practices owned by a hospital, hospital system, or medical school	27%	27%	31%	38%	41%	38%	39%	41%	33%	25%	26%	27%
Hospital or medical school	1%	3%	5%	6%	3%	5%	5%	3%	2%	4%	1%	1%
Community health center or clinic	1%	0%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Other	6%	7%	5%	4%	4%	7%	2%	2%	5%	1%	1%	3%
N	405	333	356	471	469	471	64	64	64	74	74	74
B2 Number of practice sites in each organization												
Mean	12.4	15.3	n.a.	25.3	34.0	n.a.	14.6	11.4	n.a.	12.5	49.5	n.a.
Median	2	3	n.a.	8	9	n.a.	1	1	n.a.	3	4	n.a.
N	354	340	n.a.	471	471	n.a.	64	64	n.a.	74	74	n.a.
B3 Practice ownership (multiple responses possible)												
Physicians in the practice	65%	64%	59%	50%	49%	49%	56%	58%	58%	67%	56%	52%
Non-physician clinicians (nurse practitioners or physician assistants) in the practice	4%	3%	2%	1%	2%	2%	0%	0%	5%	1%	1%	0%
Another physician organization	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Public or private hospital, health system, or foundation owned by a hospital	28%	30%	34%	42%	41%	43%	36%	34%	36%	28%	27%	30%
Insurance company, health plan or HMO	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Medical school or university	2%	2%	2%	2%	2%	2%	8%	8%	8%	0%	0%	0%
Other	4%	3%	5%	7%	8%	8%	2%	3%	3%	6%	18%	18%
N	349	340	358	471	471	471	64	64	64	74	74	74
B4 Practice is affiliated with or contracts with (multiple responses possible)												
Independent practice association	31%	40%	33%	25%	29%	27%	16%	11%	9%	43%	60%	61%
Physician hospital organization	20%	27%	28%	24%	29%	28%	58%	43%	41%	14%	23%	30%
Accountable care organization	32%	44%	47%	14%	20%	18%	5%	6%	13%	10%	38%	36%
N	332	331	352	464	470	468	64	63	64	74	74	73

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
ACO Composite: Composite measure of ACO participation (answered yes to at least one of the questions: B4c, B10c, B10e) ^b												
Yes	35%	54%	51%	14%	20%	18%	5%	6%	13%	10%	38%	35%
No	65%	46%	49%	86%	80%	82%	95%	94%	88%	90%	62%	65%
N	409	335	358	471	471	471	64	64	64	74	74	74
Among practices in a system or group, practice site autonomy to implement changes without approval from healthcare system or group^c												
B5a Staff hiring												
Little/no autonomy	15%	11%	12%	8%	4%	1%	4%	7%	4%	14%	10%	0%
Some autonomy	10%	16%	31%	18%	15%	13%	14%	11%	22%	0%	10%	5%
Moderate autonomy	24%	31%	23%	29%	24%	44%	57%	37%	26%	67%	26%	39%
High autonomy	43%	42%	34%	44%	57%	43%	25%	44%	48%	19%	54%	56%
Not applicable/not part of system	8%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%
N	96	91	110	203	203	198	28	27	23	22	20	21
B5b Organizational priorities (e.g., picking a specific quality improvement goal)												
Little/no autonomy	6%	11%	10%	5%	2%	4%	0%	0%	13%	43%	0%	0%
Some autonomy	22%	26%	39%	22%	28%	30%	54%	26%	26%	5%	64%	66%
Moderate autonomy	30%	42%	37%	44%	37%	41%	11%	41%	35%	10%	15%	15%
High autonomy	32%	22%	14%	28%	33%	25%	36%	33%	26%	43%	21%	20%
Not applicable/not part of system	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	102	96	115	214	202	204	28	27	23	22	20	21
B5c Clinical work processes (e.g., process for rooming patients)												
Little/no autonomy	3%	3%	7%	0%	1%	0%	4%	0%	0%	0%	0%	0%
Some autonomy	8%	12%	20%	13%	11%	11%	0%	4%	0%	5%	26%	10%
Moderate autonomy	31%	32%	38%	19%	44%	29%	7%	41%	30%	67%	59%	71%
High autonomy	49%	54%	35%	67%	44%	59%	89%	56%	70%	29%	15%	20%
Not applicable/not part of system	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	103	95	116	213	206	205	28	27	23	22	20	21
B5d Planning for and completion of CPC Milestones												
Little/no autonomy	n.a.	n.a.	n.a.	1%	10%	1%	0%	0%	0%	0%	0%	0%
Some autonomy	n.a.	n.a.	n.a.	21%	23%	29%	4%	8%	10%	10%	23%	21%
Moderate autonomy	n.a.	n.a.	n.a.	37%	35%	33%	22%	63%	35%	15%	11%	15%
High autonomy	n.a.	n.a.	n.a.	41%	32%	37%	74%	29%	55%	75%	66%	64%
Not applicable/not part of system	n.a.	n.a.	n.a.	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	n.a.	n.a.	n.a.	210	196	193	27	24	20	21	18	20

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Number and types of patients seen												
B6 Total number of different patients seen in past year by practice site ^a												
Mean	11,214	11,622	10,374	6,533	6,843	6,508	5,491	6,262	7,370	6,618	6,962	6,660
Median	7,000	6,000	5,500	4,895	4,406	4,437	3,500	3,870	3,673	5,000	4,900	4,799
N	393	322	337	457	465	461	63	64	62	74	74	72
B7 Practice site charges a “retainer” or “concierge” fee for some or all of its patients												
Yes	3%	3%	n.a.	1%	1%	n.a.	0%	0%	n.a.	1%	0%	n.a.
No	97%	97%	n.a.	99%	99%	n.a.	100%	100%	n.a.	99%	100%	n.a.
N	334	331	n.a.	471	471	n.a.	64	64	n.a.	74	74	n.a.
B8 Practice site accepts new Medicare patients (including managed care patients)												
None of these patients	7%	5%	4%	2%	5%	4%	2%	0%	2%	3%	6%	8%
Some of these patients	19%	21%	20%	17%	16%	20%	20%	24%	23%	28%	31%	26%
Most of these patients	25%	25%	28%	20%	23%	21%	36%	43%	38%	13%	8%	15%
All of these patients	49%	49%	48%	61%	56%	55%	42%	33%	38%	57%	55%	51%
N	334	331	348	470	470	470	64	63	64	74	74	74
B6g How often patients receiving care management from the practice get confused or frustrated by phone calls or visits from care managers outside of the practice												
Often	n.a.	n.a.	14%	n.a.	n.a.	13%	n.a.	n.a.	11%	n.a.	n.a.	24%
Sometimes	n.a.	n.a.	52%	n.a.	n.a.	48%	n.a.	n.a.	39%	n.a.	n.a.	43%
Rarely	n.a.	n.a.	31%	n.a.	n.a.	33%	n.a.	n.a.	41%	n.a.	n.a.	25%
Never	n.a.	n.a.	2%	n.a.	n.a.	6%	n.a.	n.a.	9%	n.a.	n.a.	8%
N	n.a.	n.a.	347	n.a.	n.a.	470	n.a.	n.a.	64	n.a.	n.a.	74
Practitioner compensation^d												
B9_1 Clinician (Physician/PA/NP) owner compensation (multiple responses possible)												
Salary	54%	49%	53%	40%	41%	42%	52%	53%	56%	32%	38%	35%
Productivity incentives, including profit sharing	46%	44%	35%	35%	32%	35%	31%	31%	34%	49%	44%	37%
Quality incentives	28%	26%	17%	16%	19%	19%	20%	25%	17%	24%	16%	16%
Other	9%	6%	9%	5%	6%	6%	3%	3%	13%	3%	1%	4%
Not applicable	28%	38%	27%	45%	47%	41%	44%	44%	33%	33%	42%	43%
N	326	326	350	469	469	469	64	64	64	74	74	73
B9_2 Non-owner physician compensation (multiple responses possible)												
Salary	42%	45%	42%	60%	58%	57%	50%	48%	41%	64%	63%	56%
Productivity incentives, including profit sharing	36%	39%	33%	50%	50%	45%	52%	50%	39%	50%	64%	58%

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Quality incentives	17%	21%	19%	34%	43%	34%	44%	44%	27%	22%	46%	44%
Other	4%	4%	3%	5%	9%	7%	3%	5%	6%	1%	0%	3%
Not applicable	47%	47%	43%	30%	29%	28%	42%	42%	50%	29%	25%	22%
N	326	326	350	469	469	469	64	64	64	74	74	73
B9_3 Non-owner PA/NP compensation (multiple responses possible)												
Salary	45%	55%	46%	57%	58%	50%	58%	58%	45%	75%	78%	73%
Productivity incentives, including profit sharing	20%	35%	18%	32%	34%	21%	34%	38%	13%	53%	56%	37%
Quality incentives	10%	13%	2%	16%	22%	4%	28%	25%	3%	8%	14%	4%
Other	3%	3%	24%	3%	4%	22%	5%	3%	20%	1%	0%	10%
Not applicable	50%	38%	22%	40%	37%	24%	36%	38%	34%	21%	21%	13%
N	326	326	350	469	469	469	64	64	64	74	74	73
Patient dismissal												
B6a In the past two years, has your practice ever dismissed a patient from the practice?												
Yes	n.a.	n.a.	92%	n.a.	n.a.	88%	n.a.	n.a.	95%	n.a.	n.a.	94%
No	n.a.	n.a.	8%	n.a.	n.a.	12%	n.a.	n.a.	5%	n.a.	n.a.	6%
N	n.a.	n.a.	351	n.a.	n.a.	470	n.a.	n.a.	64	n.a.	n.a.	74
B6c Number of patients practice dismissed in the past two years												
0 patients	n.a.	n.a.	8%	n.a.	n.a.	12%	n.a.	n.a.	5%	n.a.	n.a.	6%
1-5 patients	n.a.	n.a.	26%	n.a.	n.a.	28%	n.a.	n.a.	25%	n.a.	n.a.	30%
6-10 patients	n.a.	n.a.	27%	n.a.	n.a.	20%	n.a.	n.a.	17%	n.a.	n.a.	26%
11-20 patients	n.a.	n.a.	15%	n.a.	n.a.	17%	n.a.	n.a.	22%	n.a.	n.a.	8%
21-50 patients	n.a.	n.a.	15%	n.a.	n.a.	14%	n.a.	n.a.	22%	n.a.	n.a.	9%
More than 50 patients	n.a.	n.a.	8%	n.a.	n.a.	9%	n.a.	n.a.	9%	n.a.	n.a.	22%
N	n.a.	n.a.	348	n.a.	n.a.	468	n.a.	n.a.	64	n.a.	n.a.	73
Among practices that dismissed a patient from the practice in the past two years												
B6b Reasons for dismissal (multiple responses possible)												
Patient repeatedly missed appointments	n.a.	n.a.	75%	n.a.	n.a.	72%	n.a.	n.a.	66%	n.a.	n.a.	69%
Patient repeatedly violated bill payment policies	n.a.	n.a.	43%	n.a.	n.a.	35%	n.a.	n.a.	34%	n.a.	n.a.	57%
Patient violated chronic pain/controlled substance policies	n.a.	n.a.	78%	n.a.	n.a.	78%	n.a.	n.a.	85%	n.a.	n.a.	84%
Patient was extremely disruptive and/or behaved inappropriately towards clinicians or staff	n.a.	n.a.	81%	n.a.	n.a.	82%	n.a.	n.a.	85%	n.a.	n.a.	93%
Patient repeatedly did not follow health care recommendations (such as medication regimens or getting labs done)	n.a.	n.a.	47%	n.a.	n.a.	41%	n.a.	n.a.	46%	n.a.	n.a.	29%

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Patient repeatedly did not follow recommended lifestyle changes (such as diet, exercise, or smoking cessation)	n.a	n.a.	8%	n.a.	n.a.	5%	n.a.	n.a.	3%	n.a.	n.a.	10%
Patient made frequent visits to the emergency room and/or frequently self-referred to specialists	n.a	n.a.	5%	n.a.	n.a.	7%	n.a.	n.a.	10%	n.a.	n.a.	10%
Other	n.a	n.a.	2%	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	12%
N	n.a	n.a.	314	n.a.	n.a.	416	n.a.	n.a.	61	n.a.	n.a.	70
B6d Participation in CPC made the practice more or less likely to dismiss patients												
Much more likely	n.a	n.a.	n.a.	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	2%
Somewhat more likely	n.a	n.a.	n.a.	n.a.	n.a.	4%	n.a.	n.a.	9%	n.a.	n.a.	7%
Neither more or less likely	n.a	n.a.	n.a.	n.a.	n.a.	83%	n.a.	n.a.	82%	n.a.	n.a.	69%
Somewhat less likely	n.a	n.a.	n.a.	n.a.	n.a.	7%	n.a.	n.a.	4%	n.a.	n.a.	8%
Much less likely	n.a	n.a.	n.a.	n.a.	n.a.	5%	n.a.	n.a.	4%	n.a.	n.a.	15%
N	n.a	n.a.	n.a.	n.a.	n.a.	394	n.a.	n.a.	55	n.a.	n.a.	66
B6e Among practices that reported CPC made the practice much more or somewhat more likely to dismiss patients, reason CPC made the practice more likely to dismiss patients (multiple responses possible)												
Concerns about meeting quality metrics for CPC	n.a	n.a.	n.a.	n.a.	n.a.	80%	n.a.	n.a.	100%	n.a.	n.a.	82%
Concerns about meeting financial metrics for CPC	n.a	n.a.	n.a.	n.a.	n.a.	26%	n.a.	n.a.	33%	n.a.	n.a.	0%
Other	n.a	n.a.	n.a.	n.a.	n.a.	21%	n.a.	n.a.	17%	n.a.	n.a.	18%
N	n.a	n.a.	n.a.	n.a.	n.a.	20	n.a.	n.a.	6	n.a.	n.a.	6
Practice participation in other initiatives												
B10 Practice participation in other initiatives (multiple responses possible)												
The Physician Quality Reporting System	76%	82%	79%	88%	93%	90%	89%	89%	84%	92%	90%	89%
Health Care Innovation Awards	12%	21%	21%	7%	9%	12%	17%	19%	9%	4%	3%	8%
Medicare Shared Savings Program	25%	34%	35%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Independence at Home	1%	3%	1%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pioneer ACO	5%	6%	6%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Meaningful Use/EHR Incentive	n.a.	89%	91%	n.a.	99%	99%	n.a.	100%	97%	n.a.	99%	99%
Medicaid Health Home	15%	15%	17%	17%	19%	23%	11%	23%	31%	21%	26%	19%
A federally-sponsored shared savings initiative	8%	2%	5%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
State/Community based quality measures reporting program	24%	27%	26%	24%	26%	38%	5%	27%	23%	14%	15%	19%
State/Regional health information exchange	5%	26%	27%	7%	56%	59%	13%	39%	48%	3%	66%	64%
Purchaser sponsored program linking payment to performance or value	31%	23%	25%	39%	46%	51%	25%	20%	33%	51%	54%	65%

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Consortium or collaborative working on quality improvement	22%	13%	15%	45%	21%	31%	41%	17%	22%	46%	24%	32%
N	342	335	358	471	471	471	64	64	64	74	74	74
B11 Practice has recognition as a medical home from (multiple responses possible) ^a :												
Any medical home recognition	50%	56%	53%	62%	65%	62%	31%	20%	22%	57%	63%	66%
National Committee for Quality Assurance (NCQA-PCMH)	36%	38%	35%	44%	49%	45%	27%	16%	11%	47%	62%	60%
- NCQA Level 1	4%	3%	2%	1%	1%	1%	0%	0%	2%	3%	3%	0%
- NCQA Level 2	3%	5%	7%	5%	5%	4%	22%	5%	0%	3%	4%	6%
- NCQA Level 3	26%	29%	25%	36%	43%	40%	5%	11%	8%	42%	55%	55%
- NCQA Level Not Specified	4%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%
The Joint Commission	6%	6%	6%	2%	3%	5%	2%	0%	2%	4%	4%	8%
Accreditation Association for Ambulatory Healthcare	1%	0%	1%	1%	0%	1%	0%	0%	0%	1%	0%	0%
Utilization Review Accreditation Commission	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
State-based recognition program	10%	12%	12%	17%	14%	15%	3%	2%	3%	6%	3%	3%
Insurance plan-based recognition program	9%	10%	13%	10%	11%	10%	0%	2%	6%	8%	6%	7%
Other	3%	4%	3%	2%	4%	5%	0%	3%	3%	1%	1%	6%
N	423	340	358	471	471	471	64	64	64	74	74	74
Practice staff and roles												
B12a_b Number of full- and part-time physicians (primary care and specialty) at the practice site												
0-1 Full-time or Part-time	26%	26%	27%	20%	22%	23%	36%	38%	41%	11%	16%	17%
2 Full-time or Part-time	19%	17%	16%	21%	21%	18%	17%	17%	13%	26%	27%	20%
3 Full-time or Part-time	10%	15%	13%	16%	15%	16%	8%	6%	9%	20%	16%	18%
4-6 Full-time or Part-time	22%	21%	23%	28%	26%	27%	28%	23%	20%	29%	22%	25%
7+ Full-time or Part-time	23%	21%	22%	15%	17%	16%	11%	16%	17%	14%	19%	19%
N	323	327	343	464	470	470	64	64	64	72	74	74
B12a Number of full- and part-time primary care physicians at the practice site												
0-1 Full-time or Part-time	32%	30%	29%	20%	22%	24%	36%	38%	41%	13%	16%	17%
2 Full-time or Part-time	17%	17%	15%	21%	22%	19%	17%	19%	14%	24%	27%	20%
3 Full-time or Part-time	9%	13%	14%	18%	16%	17%	9%	5%	9%	23%	16%	20%
4-6 Full-time or Part-time	23%	21%	25%	29%	26%	27%	27%	27%	20%	26%	23%	24%
7+ Full-time or Part-time	19%	18%	17%	13%	14%	14%	11%	13%	16%	14%	18%	18%
N	323	327	343	464	470	470	64	64	64	72	74	74
B12j Number of full- and part-time care managers/care coordinators												
0 Full-time or Part-time	67%	65%	64%	16%	20%	16%	23%	30%	22%	13%	17%	17%
1 Full-time or Part-time	23%	25%	30%	63%	56%	59%	47%	42%	50%	67%	58%	63%

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
2 Full-time or Part-time	7%	5%	4%	15%	16%	16%	19%	13%	17%	16%	20%	16%
3+ Full-time or Part-time	3%	4%	2%	6%	8%	9%	11%	16%	11%	4%	6%	4%
N	323	327	343	464	470	470	64	64	64	72	74	74
B12 Practice site has full- or part-time ^a :												
Primary care physicians (MD/DO)	96%	97%	98%	100%	100%	99%	100%	100%	100%	100%	100%	100%
Specialty physicians	23%	20%	18%	12%	13%	12%	5%	13%	16%	11%	8%	10%
NP/PAs who bill under own NPI	45%	56%	57%	44%	48%	50%	42%	50%	48%	41%	51%	47%
NP/PAs who do not bill under own NPI	20%	12%	16%	21%	20%	19%	30%	28%	25%	39%	27%	38%
Registered Nurses (RNs)	43%	40%	40%	45%	49%	43%	39%	42%	45%	33%	49%	40%
Licensed Practical Nurses or Licensed Vocational Nurses (LPNs/LVNs)	52%	53%	49%	50%	51%	52%	86%	89%	89%	24%	18%	21%
Medical Assistants (MAs)	84%	85%	87%	89%	90%	90%	64%	72%	73%	97%	99%	99%
Receptionists	95%	95%	92%	95%	96%	96%	97%	98%	97%	99%	99%	97%
Practice supervisors/managers	87%	90%	87%	91%	91%	93%	89%	88%	88%	89%	90%	91%
Care managers/care coordinators	33%	35%	36%	85%	80%	84%	77%	70%	78%	87%	83%	83%
Community services coordinators	3%	2%	4%	5%	3%	4%	6%	2%	2%	1%	6%	3%
Health educators	8%	8%	5%	9%	11%	9%	8%	9%	11%	11%	21%	13%
Quality Improvement (QI) specialists	8%	9%	12%	11%	17%	18%	23%	14%	20%	21%	39%	40%
Behavioral health/clinical psychologists/social workers	9%	8%	12%	19%	23%	29%	13%	16%	23%	43%	36%	50%
Physical/respiratory therapists	3%	6%	9%	3%	3%	3%	3%	2%	2%	4%	3%	6%
Lab/radiology technicians	40%	44%	38%	32%	33%	33%	61%	63%	59%	33%	37%	37%
Dietitians/nutritionists	13%	10%	10%	10%	13%	14%	6%	8%	6%	9%	12%	27%
Pharmacists/pharmacy technicians	5%	3%	4%	14%	18%	18%	13%	20%	23%	16%	22%	22%
Health information technologist or EHR specialist	16%	11%	11%	16%	17%	18%	27%	20%	28%	17%	17%	22%
Accountants/financial managers	15%	19%	19%	13%	17%	17%	19%	13%	31%	21%	31%	30%
Billing staff	63%	63%	56%	51%	52%	53%	70%	73%	78%	69%	57%	60%
Other staff	6%	8%	10%	20%	19%	22%	16%	23%	27%	14%	10%	22%
N	423	340	358	471	471	471	64	64	64	74	74	74
B13 Changes in practice staffing in the last year (multiple responses possible) ^a												
Hired or contracted any staff to fill new roles or functions	44%	37%	34%	88%	56%	40%	81%	63%	45%	78%	63%	44%
Moved any existing staff into new roles or functions	40%	35%	35%	62%	44%	41%	78%	47%	52%	76%	57%	49%
Hired or contracted any new staff to fill existing roles	41%	48%	48%	32%	60%	55%	38%	61%	59%	42%	81%	65%
Moved clinical staff from other practice sites to this practice site	8%	11%	7%	4%	11%	10%	3%	8%	8%	4%	17%	11%
Moved non-clinical staff from other practice sites to this practice site	5%	8%	5%	4%	4%	5%	0%	5%	5%	17%	4%	0%
Eliminated some existing staff and their roles or functions	19%	15%	14%	3%	9%	12%	6%	9%	19%	1%	10%	11%
Other	2%	2%	3%	4%	4%	4%	3%	2%	5%	3%	4%	1%

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Did not make any changes to staffing	23%	24%	20%	4%	31%	46%	3%	31%	41%	1%	17%	31%
N	423	340	358	471	471	471	64	64	64	74	74	74
B13a Among practices that made staffing changes in the last year, changes in practice staffing in the last year as a result of CPC (multiple responses possible)												
Hired or contracted any staff to fill new roles or functions	n.a.	n.a.	n.a.	88%	67%	46%	83%	88%	53%	78%	56%	48%
Moved any existing staff into new roles or functions	n.a.	n.a.	n.a.	61%	48%	54%	73%	53%	56%	76%	54%	55%
Hired or contracted any new staff to fill existing roles	n.a.	n.a.	n.a.	23%	42%	45%	20%	38%	47%	37%	62%	67%
Moved clinical staff from other practice sites to this practice site	n.a.	n.a.	n.a.	1%	9%	11%	2%	8%	3%	1%	16%	17%
Moved non-clinical staff from other practice sites to this practice site	n.a.	n.a.	n.a.	3%	1%	1%	0%	0%	0%	16%	0%	0%
Eliminated some existing staff and their roles or functions	n.a.	n.a.	n.a.	1%	4%	5%	0%	5%	9%	0%	2%	7%
Other	n.a.	n.a.	n.a.	2%	2%	3%	2%	3%	0%	0%	4%	2%
Did not make any changes to staffing	n.a.	n.a.	n.a.	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	n.a.	n.a.	n.a.	447	317	235	59	40	32	73	59	47
B13b Care teams at this practice site participate in team huddles												
Yes	n.a.	67%	70%	n.a.	82%	83%	n.a.	69%	77%	n.a.	84%	83%
No	n.a.	33%	30%	n.a.	18%	17%	n.a.	31%	23%	n.a.	16%	17%
N	n.a.	326	343	n.a.	471	471	n.a.	64	64	n.a.	74	74
Use of health information technology												
B14 Practice site uses EHR system for managing patient care ^a												
Yes	97%	96%	99%	100%	100%	100%	100%	100%	100%	99%	100%	100%
No	3%	4%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%
N	394	327	343	471	471	470	64	64	64	74	74	74
B15 Among practices using an EHR, practice site uses EHR's e-prescribing functionality												
Yes	100%	97%	100%	100%	99%	98%	100%	100%	100%	100%	100%	100%
No, the EHR does not include e-prescribing functionality	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
No, the clinicians do not use the EHR's e-prescribing function	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Don't know	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
N	311	304	329	470	471	470	64	64	64	73	74	74

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B16 Among practices using an EHR, practice uses data extracts or reports generated from EHR to guide QI efforts												
Yes	84%	86%	83%	97%	97%	97%	97%	98%	95%	100%	100%	99%
No	8%	10%	12%	2%	3%	2%	3%	0%	3%	0%	0%	0%
Don't know	8%	5%	6%	1%	0%	1%	0%	2%	2%	0%	0%	1%
N	308	301	330	470	468	470	64	64	64	73	73	74
B16a Among practices using an EHR, type of staff responsible for extracting data or generating reports from EHR to guide quality improvement efforts (multiple responses possible)												
Primary care physician (MD/DO)	39%	40%	30%	27%	24%	25%	13%	19%	21%	27%	28%	25%
NP/PA	15%	14%	9%	8%	9%	8%	5%	8%	12%	10%	15%	11%
RN, LPN, or LVN	17%	19%	12%	24%	19%	18%	16%	11%	15%	25%	28%	21%
MA	27%	23%	19%	24%	18%	22%	3%	3%	5%	44%	36%	30%
Practice supervisor or practice manager	63%	65%	56%	53%	55%	57%	61%	64%	59%	49%	55%	47%
Care manager or care coordinator	22%	27%	19%	54%	49%	46%	50%	49%	54%	56%	43%	39%
Medical records staff	12%	14%	11%	5%	5%	3%	2%	2%	5%	7%	3%	1%
Data analyst	19%	19%	17%	29%	32%	28%	2%	13%	8%	17%	33%	29%
QI specialist	23%	20%	24%	26%	31%	28%	27%	24%	21%	48%	38%	35%
Health information technologist or EHR specialist	15%	21%	22%	26%	27%	29%	27%	19%	25%	16%	25%	16%
Other	8%	11%	9%	18%	17%	16%	13%	11%	13%	13%	9%	13%
N	247	236	269	456	454	456	62	63	61	73	73	73
B17 Among practices using an EHR, practice site is part of a healthcare system or medical group												
Yes	59%	62%	61%	68%	65%	68%	53%	45%	50%	52%	53%	45%
No	41%	38%	39%	32%	35%	32%	47%	55%	50%	48%	47%	55%
N	310	305	330	469	470	469	64	64	64	73	74	74
Among practice sites that use an EHR and are in a healthcare system or group (from B17), sources and types of data shared with practice												
B17a_a Local hospitals outside of healthcare system												
Read-only data	24%	29%	35%	32%	25%	41%	21%	34%	29%	54%	29%	40%
Import or exchange data	26%	38%	27%	32%	42%	34%	6%	14%	39%	30%	30%	25%
None	43%	28%	30%	30%	31%	23%	74%	52%	26%	14%	38%	35%
Don't know	7%	5%	8%	6%	2%	2%	0%	0%	6%	3%	3%	0%
N	161	152	177	316	306	314	34	29	31	39	40	34
B17a_b Other local medical care outside of healthcare system												
Read-only data	24%	14%	23%	19%	15%	27%	9%	17%	16%	30%	8%	15%
Import or exchange data	22%	41%	25%	29%	37%	31%	3%	21%	29%	27%	30%	25%

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
None	47%	39%	37%	45%	46%	38%	88%	62%	45%	41%	59%	57%
Don't know	8%	6%	14%	7%	3%	4%	0%	0%	10%	3%	3%	3%
N	159	151	176	313	296	317	34	29	31	39	40	34
B17a_c Local diagnostic service facilities (lab or imaging) outside of healthcare system												
Read-only data	16%	16%	11%	12%	15%	24%	18%	21%	13%	5%	5%	15%
Import or exchange data	36%	45%	31%	49%	58%	44%	12%	21%	39%	38%	62%	52%
None	39%	37%	40%	33%	24%	29%	71%	59%	42%	54%	30%	32%
Don't know	9%	2%	17%	7%	3%	3%	0%	0%	6%	3%	3%	0%
N	161	150	175	316	306	317	34	29	31	39	40	34
B17a_d Local hospitals in healthcare system												
Read-only data	24%	23%	26%	23%	22%	32%	56%	48%	20%	11%	5%	9%
Import or exchange data	44%	58%	41%	53%	56%	50%	18%	34%	43%	65%	71%	63%
None	25%	15%	19%	17%	21%	17%	26%	17%	33%	24%	24%	28%
Don't know	8%	4%	14%	8%	1%	1%	0%	0%	3%	0%	0%	0%
N	158	151	171	310	305	314	34	29	30	39	40	34
B17a_e Local medical care practices in healthcare system												
Read-only data	28%	17%	27%	14%	21%	25%	9%	28%	32%	16%	0%	12%
Import or exchange data	47%	68%	53%	70%	73%	65%	62%	59%	45%	78%	97%	88%
None	21%	11%	11%	10%	5%	7%	29%	14%	10%	5%	3%	0%
Don't know	4%	4%	9%	6%	1%	3%	0%	0%	13%	0%	0%	0%
N	159	149	172	317	305	316	34	29	31	39	40	34
B17a_f Local diagnostic service facilities (lab or imaging) in healthcare system												
Read-only data	22%	23%	22%	14%	20%	23%	12%	31%	23%	14%	3%	12%
Import or exchange data	58%	64%	54%	72%	75%	66%	68%	59%	53%	84%	95%	88%
None	16%	12%	17%	8%	4%	9%	21%	10%	17%	3%	0%	0%
Don't know	4%	2%	7%	6%	1%	2%	0%	0%	7%	0%	3%	0%
N	158	152	172	318	306	316	34	29	30	39	40	34
Among practice sites that use an EHR and are not in a healthcare system or group (from B17), sources and types of data shared with practice												
B17b_a Local hospitals												
Read-only data	21%	22%	25%	42%	50%	40%	43%	69%	59%	41%	29%	13%
Import or exchange data	38%	49%	39%	33%	37%	48%	27%	17%	25%	44%	59%	75%
None	40%	25%	35%	25%	12%	10%	30%	11%	13%	15%	12%	10%
Don't know	1%	4%	1%	0%	1%	3%	0%	3%	3%	0%	0%	3%
N	145	147	149	150	162	151	30	35	32	34	34	40

D.77

Table D.9a (continued)

Question	CPC-wide						AR			CO		
	Comparison			CPC			CPC			CPC		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B17b_b Other local medical care practices												
Read-only data	4%	11%	11%	20%	16%	18%	14%	9%	25%	29%	24%	15%
Import or exchange data	33%	39%	27%	21%	29%	38%	21%	15%	28%	21%	41%	47%
None	59%	46%	57%	58%	53%	43%	66%	74%	44%	47%	35%	35%
Don't know	4%	4%	5%	1%	2%	1%	0%	3%	3%	3%	0%	3%
N	139	143	147	148	160	151	29	34	32	34	34	40
B17b_c Local diagnostic service facilities (e.g., lab or imaging)												
Read-only data	13%	15%	18%	17%	23%	21%	30%	26%	25%	12%	26%	10%
Import or exchange data	57%	56%	55%	61%	62%	61%	40%	51%	41%	71%	62%	77%
None	30%	25%	22%	21%	14%	14%	30%	20%	25%	15%	12%	10%
Don't know	1%	4%	5%	1%	1%	4%	0%	3%	9%	3%	0%	3%
N	142	146	148	150	162	151	30	35	32	34	34	40

Sources: CPC practice surveys administered April through July 2014, April through August 2015, and April through August 2016.

Notes: Question numbers pertain to the 2016 CPC practice survey.

^a The comparison sample in 2014 is large relative to 2015 and 2016 because this question was included on the shortened version of the survey administered only in 2014.

^b We created a composite measure of ACO participation using the responses to three survey questions: B4 which asked CPC and comparison practices whether the practice was affiliated with an accountable care organization; B10c which asked comparison practices if the practice participated in the Medicare Shared Savings Program; and B10e which asked comparison practices if the practice participated in the Pioneer ACO program. Because CPC practices cannot participate in Medicare ACOs as a condition of being in the initiative, those two questions were not asked to CPC practices. We coded CPC practices as being in an ACO if they answered yes to B4 and coded comparison practices as being in an ACO if they answered yes to any one of the three questions. For both CPC and comparison practices we coded missing responses the same as answering that they were not in an ACO.

^c We restricted the sample to practices based on the practice's response to B1 and B3. Practices are included in the sample if they reported in B1 that the medical organization that employs the clinicians at this practice site is: a group or staff model HMO; a network of clinician practices owned by a hospital, hospital system, or medical school; or a hospital or medical school. Or reported in B3 that the practice is owned by: a public or private hospital, health system, or foundation owned by a hospital; an insurance company, health plan, or HMO; or a medical school or university.

^d The layout of the question changed in the 2016 survey.

n.a. = not applicable because the question or response option was not asked in the given survey; HMO = health maintenance organization; ACO = accountable care organization; PA = physician assistant; NP = nurse practitioner; EHR = electronic health record.

Table D.9b. CPC practice infrastructure in 2014, 2015, and 2016, by region (NJ, NY, OH/KY, OK, OR)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Practice characteristics															
B1 Medical organization that employs clinicians at this practice site ^a															
Independent solo or two clinician practice	35%	37%	32%	9%	12%	15%	7%	11%	9%	13%	15%	16%	5%	3%	3%
Independent group practice (3 or more clinicians)	48%	45%	44%	31%	49%	39%	27%	13%	11%	13%	11%	6%	38%	38%	38%
Group or staff model HMO	0%	0%	0%	7%	3%	1%	1%	0%	1%	2%	0%	0%	2%	0%	3%
Network of clinician practices owned by a hospital, hospital system, or medical school	3%	11%	18%	34%	31%	18%	64%	67%	65%	60%	63%	65%	37%	46%	37%
Hospital or medical school	11%	3%	2%	4%	3%	15%	1%	1%	1%	5%	5%	3%	14%	3%	12%
Community health center or clinic	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	0%
Other	2%	3%	5%	13%	2%	12%	0%	8%	12%	8%	6%	8%	5%	8%	6%
N	62	62	62	68	66	68	75	75	75	62	62	62	66	66	66
B2 Number of practice sites in each organization															
Mean	4.8	6.3	n.a.	19.5	23.5	n.a.	67.8	71.0	n.a.	23.3	31.1	n.a.	29.4	35.5	n.a.
Median	1	1	n.a.	20	23.5	n.a.	96	100	n.a.	15	13	n.a.	6	7	n.a.
N	62	62	n.a.	68	68	n.a.	75	75	n.a.	62	62	n.a.	66	66	n.a.
B3 Practice ownership (multiple responses possible)															
Physicians in the practice	77%	81%	79%	66%	63%	64%	23%	25%	28%	24%	24%	23%	37%	40%	40%
Non-physician clinicians (nurse practitioners or physician assistants) in the practice	0%	0%	0%	0%	2%	0%	0%	5%	0%	2%	0%	0%	6%	6%	9%
Another physician organization	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Public or private hospital, health system, or foundation owned by a hospital	15%	15%	16%	34%	28%	34%	65%	63%	64%	65%	66%	66%	48%	51%	51%
Insurance company, health plan or HMO	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%
Medical school or university	2%	2%	2%	0%	0%	0%	0%	0%	0%	3%	3%	3%	5%	5%	2%
Other	7%	3%	3%	2%	8%	0%	12%	7%	12%	7%	7%	8%	14%	9%	8%
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	66
B4 Practice is affiliated with or contracts with (multiple responses possible)															
Independent practice association	27%	39%	37%	16%	15%	19%	3%	3%	5%	16%	18%	10%	54%	60%	45%
Physician hospital organization	17%	15%	18%	9%	22%	6%	37%	63%	51%	25%	16%	20%	8%	14%	27%
Accountable care organization	18%	21%	29%	3%	5%	8%	7%	5%	7%	5%	10%	3%	52%	54%	34%
N	60	62	62	68	68	68	73	75	75	61	62	61	64	66	65

D.79

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
ACO Composite: Composite measure of ACO participation (answered yes to at least one of the questions: B4c, B10c, B10e) ^b															
Yes	18%	21%	29%	3%	4%	7%	7%	5%	7%	5%	10%	3%	51%	54%	34%
No	82%	79%	71%	97%	96%	93%	93%	95%	93%	95%	90%	97%	49%	46%	66%
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	66
Among practices in a system or group, practice site autonomy to implement changes without approval from healthcare system or group^c															
B5a Staff hiring															
Little/no autonomy	11%	11%	10%	5%	0%	0%	0%	0%	0%	20%	7%	0%	9%	0%	0%
Some autonomy	0%	0%	0%	27%	52%	41%	4%	2%	4%	55%	19%	10%	9%	16%	12%
Moderate autonomy	22%	22%	30%	50%	43%	50%	6%	14%	43%	10%	10%	60%	26%	34%	38%
High autonomy	67%	67%	60%	18%	4%	9%	88%	84%	52%	15%	64%	31%	56%	50%	50%
Not applicable/not part of system	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
N	9	9	10	22	23	22	48	50	46	40	42	42	34	32	34
B5b Organizational priorities (e.g., picking a specific quality improvement goal)															
Little/no autonomy	0%	0%	8%	0%	8%	9%	0%	4%	0%	5%	0%	5%	0%	3%	0%
Some autonomy	0%	67%	0%	37%	54%	43%	22%	15%	20%	12%	10%	41%	12%	16%	15%
Moderate autonomy	33%	22%	33%	43%	27%	13%	72%	54%	72%	46%	21%	22%	53%	56%	62%
High autonomy	67%	11%	58%	20%	12%	35%	4%	26%	8%	37%	69%	32%	35%	25%	24%
Not applicable/not part of system	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
N	9	9	12	30	26	23	50	46	50	41	42	41	34	32	34
B5c Clinical work processes (e.g., process for rooming patients)															
Little/no autonomy	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	3%
Some autonomy	0%	0%	8%	61%	50%	43%	2%	0%	2%	2%	0%	5%	15%	13%	21%
Moderate autonomy	38%	22%	67%	10%	31%	13%	8%	45%	16%	12%	49%	17%	30%	47%	35%
High autonomy	63%	78%	25%	29%	19%	43%	88%	55%	82%	85%	51%	79%	55%	34%	41%
Not applicable/not part of system	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
N	8	9	12	31	26	23	50	51	50	41	41	42	33	32	34
B5d Planning for and completion of CPC Milestones															
Little/no autonomy	0%	0%	0%	0%	10%	0%	0%	0%	0%	5%	36%	2%	0%	6%	3%
Some autonomy	0%	0%	0%	35%	62%	48%	44%	45%	46%	13%	0%	36%	6%	10%	9%
Moderate autonomy	89%	78%	75%	39%	10%	19%	48%	47%	48%	30%	21%	12%	38%	32%	44%
High autonomy	11%	22%	25%	26%	19%	33%	6%	8%	6%	53%	43%	50%	56%	52%	44%
Not applicable/not part of system	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%
N	9	9	8	31	21	21	50	51	48	40	42	42	32	31	34

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Number and types of patients seen															
B6 Total number of different patients seen in past year by practice site ^a															
Mean	4,794	5,519	5,113	5,138	5,000	4,933	5,418	6,068	4,872	9,276	7,197	7,217	9,194	10,998	9,648
Median	3,167	3,490	3,500	4,050	3,582	4,000	4,732	4,500	4,233	5,605	4,075	4,100	6,200	5,100	7,200
N	60	62	61	64	68	66	72	73	74	58	58	61	66	66	65
B7 Practice site charges a “retainer” or “concierge” fee for some or all of its patients															
Yes	0%	0%	n.a.	0%	1%	n.a.	0%	0%	n.a.	2%	3%	n.a.	2%	2%	n.a.
No	100%	100%	n.a.	100%	99%	n.a.	100%	100%	n.a.	98%	97%	n.a.	98%	98%	n.a.
N	62	62	n.a.	68	68	n.a.	75	75	n.a.	62	62	n.a.	66	66	n.a.
B8 Practice site accepts new Medicare patients (including managed care patients)															
None of these patients	2%	0%	0%	3%	1%	1%	1%	3%	1%	2%	11%	2%	3%	11%	15%
Some of these patients	2%	3%	3%	6%	7%	4%	5%	5%	13%	31%	15%	43%	29%	29%	26%
Most of these patients	16%	8%	13%	5%	12%	10%	27%	29%	35%	23%	35%	16%	20%	29%	22%
All of these patients	81%	89%	84%	86%	79%	84%	67%	63%	51%	45%	39%	39%	48%	31%	37%
N	62	62	62	67	68	68	75	75	75	62	62	61	66	66	66
B6g How often patients receiving care management from the practice gets confused or frustrated by phone calls or visits from care managers outside of the practice															
Often	n.a.	n.a.	5%	n.a.	n.a.	5%	n.a.	n.a.	15%	n.a.	n.a.	8%	n.a.	n.a.	20%
Sometimes	n.a.	n.a.	37%	n.a.	n.a.	57%	n.a.	n.a.	71%	n.a.	n.a.	31%	n.a.	n.a.	51%
Rarely	n.a.	n.a.	44%	n.a.	n.a.	30%	n.a.	n.a.	15%	n.a.	n.a.	57%	n.a.	n.a.	26%
Never	n.a.	n.a.	15%	n.a.	n.a.	7%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	3%
N	n.a.	n.a.	62	n.a.	n.a.	68	n.a.	n.a.	75	n.a.	n.a.	61	n.a.	n.a.	66
Practitioner compensation^d															
B9_1 Clinician (Physician/PA/NP) owner compensation (multiple responses possible)															
Salary	61%	63%	60%	54%	54%	50%	32%	35%	35%	23%	26%	42%	25%	20%	22%
Productivity incentives, including profit sharing	32%	27%	37%	43%	28%	42%	41%	45%	32%	10%	15%	19%	34%	28%	38%
Quality incentives	8%	15%	15%	16%	17%	26%	22%	31%	22%	11%	8%	10%	11%	18%	26%
Other	8%	11%	8%	6%	3%	4%	4%	0%	3%	2%	11%	3%	9%	17%	5%
Not applicable	23%	21%	23%	37%	37%	31%	49%	53%	53%	75%	69%	47%	52%	60%	55%
N	62	62	62	68	68	68	74	74	74	61	61	62	66	66	66

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B9_2 Non-owner physician compensation (multiple responses possible)															
Salary	55%	56%	68%	66%	58%	68%	36%	43%	39%	70%	64%	53%	82%	77%	80%
Productivity incentives, including profit sharing	26%	27%	35%	63%	54%	57%	49%	45%	54%	64%	57%	15%	48%	54%	52%
Quality incentives	23%	27%	21%	36%	30%	28%	43%	47%	43%	25%	54%	18%	42%	54%	55%
Other	2%	2%	0%	6%	1%	1%	8%	22%	3%	5%	15%	24%	8%	15%	11%
Not applicable	42%	42%	27%	21%	27%	26%	34%	28%	32%	23%	23%	24%	17%	15%	12%
N	62	62	62	68	68	68	74	74	74	61	61	62	66	66	66
B9_3 Non-owner PA/NP compensation (multiple responses possible)															
Salary	50%	55%	47%	73%	67%	66%	31%	36%	27%	36%	43%	63%	75%	72%	32%
Productivity incentives, including profit sharing	11%	13%	10%	39%	36%	36%	20%	23%	22%	28%	31%	11%	40%	43%	18%
Quality incentives	11%	21%	3%	16%	13%	1%	11%	20%	1%	10%	13%	11%	29%	45%	3%
Other	2%	2%	32%	1%	1%	12%	3%	11%	39%	3%	0%	18%	5%	11%	22%
Not applicable	50%	44%	19%	27%	28%	18%	64%	53%	27%	61%	57%	15%	22%	17%	42%
N	62	62	62	68	68	68	74	74	74	61	61	62	66	66	66
Patient dismissal															
B6a In the past two years, has your practice ever dismissed a patient from the practice?															
Yes	n.a.	n.a.	71%	n.a.	n.a.	74%	n.a.	n.a.	96%	n.a.	n.a.	94%	n.a.	n.a.	92%
No	n.a.	n.a.	29%	n.a.	n.a.	26%	n.a.	n.a.	4%	n.a.	n.a.	6%	n.a.	n.a.	8%
N	n.a.	n.a.	62	n.a.	n.a.	67	n.a.	n.a.	75	n.a.	n.a.	62	n.a.	n.a.	66
B6c Number of patients practice dismissed in the past two years															
0 patients	n.a.	n.a.	29%	n.a.	n.a.	26%	n.a.	n.a.	4%	n.a.	n.a.	6%	n.a.	n.a.	8%
1-5 patients	n.a.	n.a.	44%	n.a.	n.a.	27%	n.a.	n.a.	9%	n.a.	n.a.	29%	n.a.	n.a.	36%
6-10 patients	n.a.	n.a.	18%	n.a.	n.a.	16%	n.a.	n.a.	28%	n.a.	n.a.	23%	n.a.	n.a.	8%
11-20 patients	n.a.	n.a.	5%	n.a.	n.a.	17%	n.a.	n.a.	24%	n.a.	n.a.	24%	n.a.	n.a.	22%
21-50 patients	n.a.	n.a.	5%	n.a.	n.a.	11%	n.a.	n.a.	23%	n.a.	n.a.	18%	n.a.	n.a.	13%
More than 50 patients	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	12%	n.a.	n.a.	0%	n.a.	n.a.	14%
N	n.a.	n.a.	62	n.a.	n.a.	67	n.a.	n.a.	75	n.a.	n.a.	62	n.a.	n.a.	65
Among practices that dismissed a patient from the practice in the past two years															
B6b Reasons for dismissal (multiple responses possible)															
Patient repeatedly missed appointments	n.a.	n.a.	55%	n.a.	n.a.	65%	n.a.	n.a.	86%	n.a.	n.a.	78%	n.a.	n.a.	77%

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Patient repeatedly violated bill payment policies	n.a.	n.a.	25%	n.a.	n.a.	20%	n.a.	n.a.	39%	n.a.	n.a.	17%	n.a.	n.a.	42%
Patient violated chronic pain/controlled substance policies	n.a.	n.a.	61%	n.a.	n.a.	76%	n.a.	n.a.	90%	n.a.	n.a.	79%	n.a.	n.a.	65%
Patient was extremely disruptive and/or behaved inappropriately towards clinicians or staff	n.a.	n.a.	71%	n.a.	n.a.	82%	n.a.	n.a.	81%	n.a.	n.a.	76%	n.a.	n.a.	85%
Patient repeatedly did not follow health care recommendations (such as medication regimens or getting labs done)	n.a.	n.a.	36%	n.a.	n.a.	38%	n.a.	n.a.	51%	n.a.	n.a.	55%	n.a.	n.a.	27%
Patient repeatedly did not follow recommended lifestyle changes (such as diet, exercise, or smoking cessation)	n.a.	n.a.	2%	n.a.	n.a.	2%	n.a.	n.a.	8%	n.a.	n.a.	5%	n.a.	n.a.	2%
Patient made frequent visits to the emergency room and/or frequently self-referred to specialists	n.a.	n.a.	7%	n.a.	n.a.	2%	n.a.	n.a.	7%	n.a.	n.a.	2%	n.a.	n.a.	8%
Other	n.a.	n.a.	5%	n.a.	n.a.	0%	n.a.	n.a.	1%	n.a.	n.a.	3%	n.a.	n.a.	7%
N	n.a.	n.a.	44	n.a.	n.a.	50	n.a.	n.a.	72	n.a.	n.a.	58	n.a.	n.a.	61
B6d Participation in CPC made the practice more or less likely to dismiss patients															
Much more likely	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%
Somewhat more likely	n.a.	n.a.	0%	n.a.	n.a.	9%	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	0%
Neither more or less likely	n.a.	n.a.	97%	n.a.	n.a.	87%	n.a.	n.a.	90%	n.a.	n.a.	86%	n.a.	n.a.	74%
Somewhat less likely	n.a.	n.a.	0%	n.a.	n.a.	4%	n.a.	n.a.	6%	n.a.	n.a.	7%	n.a.	n.a.	21%
Much less likely	n.a.	n.a.	3%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	5%	n.a.	n.a.	5%
N	n.a.	n.a.	37	n.a.	n.a.	48	n.a.	n.a.	72	n.a.	n.a.	57	n.a.	n.a.	59
B6e Among practices that reported CPC made the practice much more or somewhat more likely to dismiss patients, reason CPC made the practice more likely to dismiss patients (multiple responses possible)															
Concerns about meeting quality metrics for CPC	n.a.	n.a.	0%	n.a.	n.a.	75%	n.a.	n.a.	33%	n.a.	n.a.	100%	n.a.	n.a.	0%
Concerns about meeting financial metrics for CPC	n.a.	n.a.	0%	n.a.	n.a.	25%	n.a.	n.a.	33%	n.a.	n.a.	100%	n.a.	n.a.	0%
Other	n.a.	n.a.	0%	n.a.	n.a.	25%	n.a.	n.a.	33%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	0	n.a.	n.a.	4	n.a.	n.a.	3	n.a.	n.a.	1	n.a.	n.a.	0

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Practice participation in other initiatives															
B10 Practice participation in other initiatives (multiple responses possible)															
The Physician Quality Reporting System	89%	95%	94%	93%	99%	94%	99%	97%	99%	60%	89%	82%	91%	91%	83%
Health Care Innovation Awards	5%	8%	8%	5%	8%	15%	15%	11%	37%	0%	10%	2%	3%	5%	3%
Medicare Shared Savings Program	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Independence at Home	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pioneer ACO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Meaningful Use/EHR Incentive	n.a.	100%	100%	n.a.	100%	100%	n.a.	99%	99%	n.a.	98%	97%	n.a.	97%	99%
Medicaid Health Home	0%	2%	3%	6%	3%	8%	5%	7%	29%	26%	23%	15%	54%	48%	54%
A federally-sponsored shared savings initiative	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
State/Community based quality measures reporting program	5%	19%	15%	19%	15%	10%	65%	23%	85%	3%	7%	36%	49%	79%	74%
State/Regional health information exchange	3%	36%	32%	5%	48%	70%	8%	87%	92%	5%	65%	65%	14%	46%	32%
Purchaser sponsored program linking payment to performance or value	52%	60%	47%	33%	36%	57%	45%	56%	76%	16%	34%	32%	49%	60%	42%
Consortium or collaborative working on quality improvement	24%	10%	8%	46%	13%	16%	73%	44%	85%	52%	7%	11%	26%	29%	32%
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	66
B11 Practice has recognition as a medical home from (multiple responses possible) ^a :															
Any medical home recognition	63%	82%	77%	61%	63%	51%	91%	93%	92%	23%	24%	23%	100%	100%	99%
National Committee for Quality Assurance (NCQA-PCMH)	44%	60%	60%	54%	63%	46%	89%	93%	91%	5%	7%	5%	32%	35%	32%
- NCQA Level 1	2%	0%	2%	3%	2%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%
- NCQA Level 2	8%	13%	13%	2%	6%	3%	0%	3%	4%	0%	2%	0%	2%	6%	0%
- NCQA Level 3	32%	44%	44%	49%	55%	40%	87%	88%	84%	5%	5%	5%	19%	32%	32%
- NCQA Level Not Specified	0%	0%	2%	0%	0%	2%	0%	3%	3%	0%	0%	0%	0%	0%	0%
The Joint Commission	0%	0%	8%	2%	12%	3%	1%	0%	5%	0%	2%	0%	8%	2%	5%
Accreditation Association for Ambulatory Healthcare	0%	0%	0%	3%	2%	3%	0%	0%	1%	0%	2%	0%	2%	0%	0%
Utilization Review Accreditation Commission	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%
State-based recognition program	0%	0%	0%	0%	0%	0%	4%	0%	0%	11%	10%	16%	94%	85%	85%
Insurance plan-based recognition program	23%	37%	27%	12%	12%	15%	4%	1%	1%	3%	2%	0%	22%	19%	15%
Other	3%	5%	5%	0%	2%	3%	1%	3%	1%	8%	8%	7%	3%	6%	14%
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	66

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Practice staff and roles															
B12a_b Number of full- and part-time physicians (primary care and specialty) at the practice site															
0-1 Full-time or Part-time	27%	32%	27%	22%	24%	27%	17%	16%	17%	21%	25%	27%	3%	5%	8%
2 Full-time or Part-time	18%	18%	21%	30%	27%	28%	21%	21%	21%	18%	16%	11%	17%	15%	12%
3 Full-time or Part-time	16%	11%	13%	17%	11%	14%	21%	23%	21%	18%	23%	24%	11%	16%	11%
4-6 Full-time or Part-time	29%	27%	29%	19%	22%	21%	36%	33%	36%	33%	28%	29%	25%	23%	27%
7+ Full-time or Part-time	10%	11%	10%	12%	16%	11%	4%	7%	4%	11%	8%	8%	45%	41%	42%
N	62	62	62	68	68	67	75	75	75	57	61	62	66	66	66
B12a Number of full- and part-time primary care physicians at the practice site															
0-1 Full-time or Part-time	27%	32%	29%	24%	25%	29%	17%	16%	17%	21%	25%	29%	3%	5%	8%
2 Full-time or Part-time	18%	19%	19%	30%	30%	30%	23%	21%	21%	19%	16%	13%	17%	19%	12%
3 Full-time or Part-time	19%	13%	15%	19%	14%	15%	21%	23%	23%	19%	28%	23%	11%	16%	12%
4-6 Full-time or Part-time	29%	27%	31%	19%	19%	19%	37%	36%	35%	32%	23%	27%	31%	25%	31%
7+ Full-time or Part-time	7%	8%	7%	9%	12%	8%	1%	4%	4%	9%	8%	8%	39%	36%	37%
N	62	62	62	68	68	67	75	75	75	57	61	62	66	66	66
B12j Number of full- and part-time care managers/care coordinators															
0 Full-time or Part-time	24%	31%	21%	22%	14%	14%	9%	13%	13%	7%	13%	15%	11%	27%	11%
1 Full-time or Part-time	55%	50%	66%	68%	75%	74%	69%	61%	52%	67%	49%	47%	68%	55%	59%
2 Full-time or Part-time	18%	13%	10%	9%	10%	11%	16%	20%	25%	16%	23%	21%	12%	11%	14%
3+ Full-time or Part-time	3%	7%	3%	2%	0%	2%	5%	5%	9%	11%	15%	18%	9%	8%	17%
N	62	62	62	68	68	67	75	75	75	57	61	62	66	66	66
B12 Practice site has full- or part-time ^a :															
Primary care physicians (MD/DO)	98%	100%	100%	100%	100%	100%	100%	99%	99%	98%	100%	97%	100%	100%	97%
Specialty physicians	13%	16%	13%	9%	13%	9%	7%	5%	3%	19%	15%	11%	25%	19%	24%
NP/PAs who bill under own NPI	26%	23%	24%	55%	58%	64%	33%	40%	51%	54%	38%	50%	60%	74%	63%
NP/PAs who do not bill under own NPI	29%	32%	31%	15%	18%	8%	7%	9%	12%	12%	23%	16%	15%	5%	6%
Registered Nurses (RNs)	61%	57%	45%	53%	49%	49%	47%	40%	37%	21%	33%	24%	62%	75%	62%
Licensed Practical Nurses or Licensed Vocational Nurses (LPNs/LVNs)	29%	31%	23%	84%	78%	83%	45%	51%	57%	49%	59%	57%	34%	35%	39%
Medical Assistants (MAs)	94%	94%	90%	70%	75%	76%	97%	97%	97%	97%	92%	90%	100%	97%	100%
Receptionists	89%	92%	90%	96%	91%	92%	91%	92%	96%	98%	98%	100%	100%	100%	99%
Practice supervisors/managers	79%	81%	90%	96%	97%	94%	99%	96%	96%	91%	93%	94%	94%	94%	97%
Care managers/care coordinators	76%	69%	79%	78%	86%	86%	91%	87%	87%	93%	87%	86%	89%	73%	89%
Community services coordinators	5%	2%	5%	3%	2%	0%	4%	3%	3%	9%	7%	7%	5%	3%	12%
Health educators	3%	3%	7%	12%	3%	8%	12%	12%	11%	12%	8%	7%	6%	19%	9%

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR			
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	
Quality Improvement (QI) specialists	7%	13%	13%	6%	14%	18%	9%	13%	11%	5%	5%	7%	5%	16%	17%	
Behavioral health/clinical psychologists/social workers	7%	8%	16%	3%	13%	14%	0%	1%	5%	12%	26%	26%	57%	62%	72%	
Physical/respiratory therapists	2%	2%	0%	0%	3%	3%	4%	5%	1%	7%	5%	5%	3%	5%	3%	
Lab/radiology technicians	19%	16%	24%	7%	12%	9%	23%	13%	13%	35%	43%	42%	48%	49%	52%	
Dietitians/nutritionists	15%	8%	11%	10%	18%	18%	8%	12%	11%	12%	15%	7%	14%	15%	14%	
Pharmacists/pharmacy technicians	5%	7%	7%	2%	12%	15%	9%	12%	5%	12%	10%	13%	43%	46%	40%	
Health information technologist or EHR specialist	16%	23%	26%	9%	19%	11%	4%	7%	4%	14%	12%	16%	28%	21%	19%	
Accountants/financial managers	16%	19%	18%	5%	10%	12%	4%	12%	5%	11%	12%	10%	17%	18%	15%	
Billing staff	57%	52%	47%	49%	44%	43%	24%	27%	25%	25%	51%	45%	66%	62%	75%	
Other staff	24%	23%	19%	12%	12%	20%	17%	11%	11%	21%	20%	24%	40%	34%	33%	
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	66	
B13 Changes in practice staffing in the last year (multiple responses possible)^a																
Hired or contracted any staff to fill new roles or functions	92%	48%	39%	84%	36%	22%	95%	47%	33%	94%	68%	37%	92%	65%	57%	
Moved any existing staff into new roles or functions	74%	34%	37%	58%	40%	30%	55%	35%	33%	24%	37%	31%	68%	56%	55%	
Hired or contracted any new staff to fill existing roles	34%	44%	53%	19%	34%	39%	25%	59%	51%	24%	71%	48%	46%	67%	68%	
Moved clinical staff from other practice sites to this practice site	2%	2%	2%	3%	10%	8%	3%	8%	13%	7%	10%	10%	9%	19%	19%	
Moved non-clinical staff from other practice sites to this practice site	2%	2%	0%	0%	0%	2%	0%	3%	4%	0%	5%	7%	11%	9%	19%	
Eliminated some existing staff and their roles or functions	5%	11%	13%	2%	8%	8%	0%	4%	11%	2%	11%	11%	8%	13%	14%	
Other	2%	8%	7%	12%	5%	2%	1%	7%	5%	5%	3%	7%	3%	2%	3%	
Did not make any changes to staffing	2%	34%	44%	8%	30%	54%	3%	40%	44%	10%	26%	66%	3%	35%	45%	
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	66	
B13a Among practices that made staffing changes in the last year, changes in practice staffing in the last year as a result of CPC (multiple responses possible)																
Hired or contracted any staff to fill new roles or functions	87%	68%	50%	90%	46%	31%	93%	60%	34%	91%	76%	50%	92%	82%	57%	
Moved any existing staff into new roles or functions	72%	45%	50%	59%	52%	55%	51%	42%	44%	24%	31%	40%	68%	55%	71%	
Hired or contracted any new staff to fill existing roles	21%	33%	47%	17%	30%	28%	19%	33%	42%	15%	38%	45%	27%	54%	31%	

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Moved clinical staff from other practice sites to this practice site	0%	0%	3%	2%	11%	7%	1%	7%	15%	2%	2%	5%	2%	17%	17%
Moved non-clinical staff from other practice sites to this practice site	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	0%	5%	5%	6%
Eliminated some existing staff and their roles or functions	2%	5%	0%	0%	4%	3%	0%	0%	5%	0%	2%	0%	2%	10%	6%
Other	0%	5%	10%	7%	0%	0%	1%	2%	5%	0%	2%	5%	3%	1%	0%
Did not make any changes to staffing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	61	40	30	62	46	29	73	45	41	55	45	20	64	42	36
B13b Care teams at this practice site participate in team huddles															
Yes	n.a.	92%	90%	n.a.	83%	87%	n.a.	91%	88%	n.a.	68%	68%	n.a.	88%	88%
No	n.a.	8%	10%	n.a.	17%	13%	n.a.	9%	12%	n.a.	32%	32%	n.a.	12%	12%
N	n.a.	62	62	n.a.	68	68	n.a.	75	75	n.a.	62	62	n.a.	66	66
Use of health information technology															
B14 Practice site uses EHR system for managing patient care ^a															
Yes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
No	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	65
B15 Among practices using an EHR, practice site uses EHR's e-prescribing functionality															
Yes	100%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	97%	100%	91%	91%
No, the EHR does not include e-prescribing functionality	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%
No, the clinicians do not use the EHR's e-prescribing function	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	0%	0%	6%
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	9%	3%
N	62	62	62	68	68	68	75	75	75	62	62	62	66	66	65
B16 Among practices using an EHR, practice uses data extracts or reports generated from EHR to guide QI efforts															
Yes	98%	97%	97%	88%	88%	97%	100%	100%	100%	97%	95%	94%	98%	100%	97%
No	0%	3%	2%	7%	12%	1%	0%	0%	0%	2%	3%	3%	2%	0%	3%
Don't know	2%	0%	2%	4%	0%	1%	0%	0%	0%	2%	2%	3%	0%	0%	0%
N	62	62	62	68	67	68	75	75	75	62	61	62	66	66	65

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B16a Among practices using an EHR, type of staff responsible for extracting data or generating reports from EHR to guide quality improvement efforts (multiple responses possible)															
Primary care physician (MD/DO)	49%	35%	47%	12%	10%	10%	40%	39%	40%	17%	10%	10%	27%	25%	16%
NP/PA	13%	5%	12%	7%	5%	6%	5%	9%	9%	3%	2%	2%	16%	14%	7%
RN, LPN, or LVN	25%	18%	17%	17%	22%	13%	28%	20%	33%	22%	14%	10%	31%	22%	15%
MA	28%	15%	22%	7%	9%	3%	31%	33%	49%	8%	3%	2%	39%	22%	32%
Practice supervisor or practice manager	46%	50%	57%	25%	32%	32%	63%	61%	87%	58%	45%	45%	66%	71%	71%
Care manager or care coordinator	46%	47%	65%	17%	14%	14%	51%	67%	63%	85%	71%	45%	73%	51%	45%
Medical records staff	2%	0%	3%	3%	7%	3%	9%	5%	1%	5%	5%	3%	8%	11%	3%
Data analyst	10%	10%	13%	29%	12%	20%	49%	48%	48%	50%	53%	29%	45%	51%	40%
QI specialist	5%	13%	17%	17%	41%	34%	37%	33%	45%	13%	41%	9%	28%	25%	27%
Health information technologist or EHR specialist	28%	25%	35%	17%	30%	25%	51%	40%	51%	20%	26%	22%	22%	25%	24%
Other	21%	22%	2%	20%	12%	28%	31%	25%	3%	0%	9%	29%	22%	32%	26%
N	61	60	60	60	59	66	75	75	75	60	58	58	65	66	63
B17 Among practices using an EHR, practice site is part of a healthcare system or medical group															
Yes	35%	34%	40%	81%	74%	83%	88%	88%	89%	84%	82%	82%	78%	74%	81%
No	65%	66%	60%	19%	26%	17%	12%	12%	11%	16%	18%	18%	22%	26%	19%
N	62	62	62	68	67	67	74	75	75	62	62	62	66	66	65
Among practice sites that use an EHR and are in a healthcare system or group (from B17), sources and types of data shared with practice															
B17a_a Local hospitals outside of healthcare system															
Read-only data	27%	24%	28%	2%	14%	36%	39%	23%	42%	26%	12%	45%	53%	46%	52%
Import or exchange data	14%	19%	20%	19%	26%	18%	56%	77%	58%	46%	59%	27%	29%	27%	37%
None	55%	57%	52%	48%	58%	40%	5%	0%	0%	28%	24%	25%	18%	25%	10%
Don't know	5%	0%	0%	31%	2%	5%	0%	0%	0%	0%	6%	2%	0%	2%	2%
N	22	21	25	55	51	56	64	65	64	50	51	51	52	49	53
B17a_b Other local medical care outside of healthcare system															
Read-only data	5%	14%	12%	2%	16%	24%	23%	13%	37%	21%	4%	37%	36%	31%	29%
Import or exchange data	14%	24%	16%	19%	31%	25%	44%	55%	51%	44%	56%	20%	32%	21%	37%
None	77%	62%	72%	48%	51%	48%	31%	25%	10%	33%	36%	41%	30%	46%	25%
Don't know	5%	0%	0%	31%	2%	4%	2%	7%	1%	2%	4%	2%	2%	2%	10%
N	22	21	25	55	51	56	64	56	67	48	50	51	51	49	53

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B17a_c Local diagnostic service facilities (lab or imaging) outside of healthcare system															
Read-only data	14%	19%	16%	2%	9%	34%	11%	15%	19%	14%	10%	37%	20%	27%	25%
Import or exchange data	59%	71%	64%	24%	60%	27%	81%	82%	61%	56%	59%	22%	57%	40%	48%
None	23%	10%	20%	43%	29%	34%	6%	3%	19%	30%	24%	39%	22%	29%	23%
Don't know	5%	0%	0%	31%	2%	5%	2%	0%	0%	0%	8%	2%	2%	4%	4%
N	22	21	25	55	51	56	64	65	67	50	51	51	52	49	53
B17a_d Local hospitals in healthcare system															
Read-only data	23%	48%	48%	28%	30%	24%	3%	8%	33%	20%	24%	53%	32%	17%	29%
Import or exchange data	32%	19%	40%	21%	46%	57%	90%	61%	60%	76%	73%	27%	42%	60%	51%
None	41%	33%	12%	19%	20%	15%	0%	31%	7%	2%	4%	20%	26%	21%	18%
Don't know	5%	0%	0%	32%	4%	4%	7%	0%	0%	2%	0%	0%	0%	2%	2%
N	22	21	25	54	51	55	59	64	67	51	51	51	51	49	52
B17a_e Local medical care practices in healthcare system															
Read-only data	18%	24%	36%	13%	26%	15%	5%	6%	12%	18%	54%	49%	24%	15%	27%
Import or exchange data	73%	57%	40%	37%	66%	74%	94%	92%	87%	78%	44%	37%	65%	79%	67%
None	5%	19%	16%	19%	6%	6%	2%	2%	1%	4%	2%	14%	12%	4%	6%
Don't know	5%	0%	8%	31%	2%	6%	0%	0%	0%	0%	0%	0%	0%	2%	0%
N	22	21	25	55	51	55	64	65	67	51	50	51	52	49	53
B17a_f Local diagnostic service facilities (lab or imaging) in healthcare system															
Read-only data	9%	19%	12%	13%	12%	16%	3%	6%	16%	24%	55%	51%	25%	19%	22%
Import or exchange data	82%	76%	76%	35%	74%	64%	97%	92%	84%	75%	43%	31%	65%	77%	68%
None	5%	5%	12%	20%	12%	15%	0%	2%	0%	2%	0%	16%	10%	2%	8%
Don't know	5%	0%	0%	31%	2%	5%	0%	0%	0%	0%	2%	2%	0%	2%	2%
N	22	21	25	55	51	56	65	65	67	51	51	51	52	49	53
Among practice sites that use an EHR and are not in a healthcare system or group (from B17), sources and types of data shared with practice															
B17b_a Local hospitals															
Read-only data	38%	50%	59%	46%	56%	45%	22%	44%	13%	50%	36%	27%	57%	59%	42%
Import or exchange data	25%	33%	27%	8%	31%	45%	78%	56%	88%	40%	45%	64%	36%	35%	42%
None	38%	18%	8%	46%	13%	9%	0%	0%	0%	10%	9%	9%	7%	6%	17%
Don't know	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	9%	0%	0%	0%	0%
N	40	40	37	13	16	11	9	9	8	10	11	11	14	17	12
B17b_b Other local medical care practices															
Read-only data	15%	8%	14%	23%	6%	18%	44%	22%	25%	10%	18%	27%	8%	41%	8%
Import or exchange data	5%	31%	43%	23%	44%	55%	33%	22%	13%	50%	9%	9%	38%	35%	42%
None	80%	62%	43%	54%	50%	27%	22%	56%	63%	30%	64%	64%	54%	18%	50%

Table D.9b (continued)

Question	NJ			NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	9%	0%	0%	6%	0%
N	40	39	37	13	16	11	9	9	8	10	11	11	13	17	12
B17b_c Local diagnostic service facilities (e.g., lab or imaging)															
Read-only data	18%	18%	24%	15%	12%	18%	11%	0%	13%	30%	36%	55%	0%	35%	17%
Import or exchange data	58%	74%	59%	46%	47%	73%	89%	89%	88%	60%	45%	36%	86%	65%	58%
None	25%	8%	11%	31%	41%	9%	0%	11%	0%	10%	9%	9%	14%	0%	25%
Don't know	0%	0%	5%	8%	0%	0%	0%	0%	0%	0%	9%	0%	0%	0%	0%
N	40	39	37	13	17	11	9	9	8	10	11	11	14	17	12

Sources: CPC practice surveys administered April through July 2014, April through August 2015, and April through August 2016.

Notes: Question numbers pertain to the 2016 CPC practice survey.

^a The comparison sample in 2014 is large relative to 2015 and 2016 because this question was included on the shortened version of the survey administered only in 2014.

^b We created a composite measure of ACO participation using the responses to three survey questions: B4 which asked CPC and comparison practices whether the practice was affiliated with an accountable care organization; B10c which asked comparison practices if the practice participated in the Medicare Shared Savings Program; and B10e which asked comparison practices if the practice participated in the Pioneer ACO program. Because CPC practices cannot participate in Medicare ACOs as a condition of being in the initiative, those two questions were not asked to CPC practices. We coded CPC practices as being in an ACO if they answered yes to B4 and coded comparison practices as being in an ACO if they answered yes to any one of the three questions. For both CPC and comparison practices we coded missing responses the same as answering that they were not in an ACO.

^c We restricted the sample to practices based on the practice's response to B1 and B3. Practices are included in the sample if they reported in B1 that the medical organization that employs the clinicians at this practice site is: a group or staff model HMO; a network of clinician practices owned by a hospital, hospital system, or medical school; or a hospital or medical school. Or reported in B3 that the practice is owned by: a public or private hospital, health system, or foundation owned by a hospital; an insurance company, health plan, or HMO; or a medical school or university.

^d The layout of the question changed in the 2016 survey.

n.a. = not applicable because the question or response option was not asked in the given survey; HMO = health maintenance organization; ACO = accountable care organization; PA = physician assistant; NP = nurse practitioner; EHR = electronic health record.

Table D.10a. CPC practice experience with practice learning and assistance in 2014, 2015, and 2016, overall and by region (AR, CO, NJ)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Experience with technical assistance from regional learning faculty (RLF)												
C1 RLF directly communicates with												
Staff in practice site only	42%	37%	36%	77%	66%	63%	53%	46%	49%	85%	68%	72%
Staff in larger healthcare system or medical group only	11%	14%	19%	5%	2%	5%	1%	13%	23%	2%	3%	0%
A combination	48%	48%	45%	18%	31%	32%	46%	42%	28%	13%	27%	28%
Neither	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	2%	0%
N	464	456	444	61	58	57	74	72	69	61	60	53
Among practices in a healthcare system ^a , RLF directly communicates with												
Staff in practice site only	19%	12%	12%	74%	40%	38%	23%	10%	19%	80%	20%	25%
Staff in larger healthcare system or medical group only	11%	18%	26%	11%	0%	13%	5%	0%	0%	10%	0%	0%
A combination	70%	68%	62%	15%	56%	50%	73%	90%	81%	10%	70%	75%
Neither	0%	1%	0%	0%	4%	0%	0%	0%	0%	0%	10%	0%
N	220	207	203	27	25	24	22	21	21	10	10	8
Among practices not in healthcare system ^a , RLF directly communicates with												
Staff in practice site only	62%	58%	56%	79%	85%	82%	65%	61%	63%	86%	78%	80%
Staff in larger healthcare system or medical group only	11%	10%	13%	0%	3%	0%	0%	18%	33%	0%	4%	0%
A combination	27%	31%	30%	21%	12%	18%	35%	22%	4%	14%	18%	20%
Neither	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	244	248	241	34	33	33	52	51	48	51	50	45
C2 Frequency of communication between practice and RLF												
Daily	2%	1%	1%	2%	3%	0%	4%	1%	0%	3%	2%	0%
Weekly	38%	27%	28%	23%	28%	35%	50%	38%	36%	28%	17%	8%
Monthly	45%	51%	42%	70%	47%	51%	43%	60%	49%	52%	72%	62%
Less than monthly	14%	20%	25%	5%	22%	14%	1%	1%	14%	16%	10%	30%
Never	2%	1%	5%	0%	0%	0%	1%	0%	0%	0%	0%	0%
N	464	452	444	61	58	57	74	72	69	61	60	53
C3 If practice and RLF communicate with each other, number of times RLF provided direct support to practice in past 6 months												
Mean	10.5	7.4	6.0	9.5	7.2	8.1	21.6	17.0	11.5	10.6	8.6	6.1
Median	6	5	4	9	4	6	15	14	9	6	6	5
Min	0	0	0	0	0	0	6	2	0	0	1	0
Max	100	100	126	40	60	43	100	100	126	60	50	20
N	450	444	421	60	58	55	73	72	69	61	60	53

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
C3a If practice and RLF communicate with each other, the type of direct support the practice site received from the RLF in past 6 months												
Primarily received help with practice improvement (implement new workflows, improve ongoing processes, meet CPC Milestones)	n.a	n.a	28%	n.a	n.a	37%	n.a	n.a	25%	n.a	n.a	31%
Primarily received help meeting administrative requirements (CPC reporting or data submission)	n.a	n.a	44%	n.a	n.a	28%	n.a	n.a	48%	n.a	n.a	47%
Received substantial amounts of help with practice improvements and administrative requirements	n.a	n.a	22%	n.a	n.a	31%	n.a	n.a	27%	n.a	n.a	20%
Did not receive, or received little support of this kind	n.a	n.a	6%	n.a	n.a	4%	n.a	n.a	0%	n.a	n.a	2%
N	n.a	n.a	390	n.a	n.a	54	n.a	n.a	67	n.a	n.a	51
C4 Practices' overall rating of the quality of all services from the regional learning faculty in meeting this practice site's CPC-related needs												
Excellent	37%	37%	40%	43%	33%	53%	62%	56%	51%	59%	60%	42%
Very good	35%	35%	35%	28%	37%	32%	28%	28%	38%	21%	25%	38%
Good	21%	23%	21%	28%	23%	11%	7%	13%	10%	18%	12%	19%
Fair	6%	5%	4%	2%	7%	4%	1%	3%	0%	2%	3%	2%
Poor	2%	0%	1%	0%	0%	2%	1%	1%	1%	0%	0%	0%
N	463	448	444	61	57	57	74	72	69	61	60	53
C5a Practices' rating of usefulness of CPC offered assistance in improving primary care												
Percentage of practices that reported receiving or attending the following types of assistance												
Practice-to-practice learning	n.a.	87%	78%	n.a.	84%	89%	n.a.	89%	90%	n.a.	95%	98%
In person coaching at this practice	n.a.	60%	56%	n.a.	59%	77%	n.a.	85%	74%	n.a.	54%	69%
Webinars	n.a.	100%	100%	n.a.	100%	98%	n.a.	100%	100%	n.a.	100%	100%
CPC weekly round-up email	n.a.	99%	99%	n.a.	100%	100%	n.a.	100%	100%	n.a.	100%	100%
In-person meetings for practices and others in CPC	n.a.	93%	92%	n.a.	89%	93%	n.a.	94%	96%	n.a.	95%	98%
CPC Collaboration Website/CPC Connect	n.a.	99%	98%	n.a.	98%	98%	n.a.	100%	100%	n.a.	98%	100%
CPC Web Application	n.a.	98%	98%	n.a.	100%	100%	n.a.	100%	100%	n.a.	100%	100%
N ^b	n.a.	455	443	n.a.	58	57	n.a.	72	69	n.a.	60	53
Of practices that reporting receiving assistance, practice's rating of usefulness												
Practice-to-practice learning												
Very useful	n.a.	38%	37%	n.a.	43%	41%	n.a.	31%	32%	n.a.	41%	41%
Somewhat useful	n.a.	56%	56%	n.a.	49%	51%	n.a.	66%	55%	n.a.	46%	51%
Not very useful	n.a.	6%	7%	n.a.	9%	8%	n.a.	2%	12%	n.a.	11%	8%

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not at all useful	n.a.	1%	0%	n.a.	0%	0%	n.a.	2%	2%	n.a.	2%	0%
N	n.a.	386	345	n.a.	47	51	n.a.	64	60	n.a.	56	51
In-person coaching at this practice												
Very useful	n.a.	41%	46%	n.a.	56%	57%	n.a.	62%	53%	n.a.	47%	25%
Somewhat useful	n.a.	50%	45%	n.a.	41%	39%	n.a.	30%	39%	n.a.	44%	64%
Not very useful	n.a.	6%	8%	n.a.	0%	2%	n.a.	5%	6%	n.a.	6%	11%
Not at all useful	n.a.	3%	1%	n.a.	3%	2%	n.a.	3%	2%	n.a.	3%	0%
N	n.a.	274	247	n.a.	34	44	n.a.	61	51	n.a.	32	36
Webinars												
Very useful	n.a.	21%	20%	n.a.	30%	32%	n.a.	11%	10%	n.a.	37%	38%
Somewhat useful	n.a.	69%	67%	n.a.	52%	57%	n.a.	81%	71%	n.a.	53%	55%
Not very useful	n.a.	9%	11%	n.a.	18%	11%	n.a.	8%	19%	n.a.	7%	8%
Not at all useful	n.a.	1%	2%	n.a.	0%	0%	n.a.	0%	0%	n.a.	3%	0%
N	n.a.	454	438	n.a.	56	56	n.a.	72	69	n.a.	60	53
CPC weekly round-up email												
Very useful	n.a.	39%	41%	n.a.	52%	51%	n.a.	39%	35%	n.a.	60%	52%
Somewhat useful	n.a.	50%	46%	n.a.	43%	45%	n.a.	50%	59%	n.a.	37%	44%
Not very useful	n.a.	9%	10%	n.a.	5%	2%	n.a.	11%	4%	n.a.	3%	4%
Not at all useful	n.a.	1%	3%	n.a.	0%	2%	n.a.	0%	1%	n.a.	0%	0%
N	n.a.	451	431	n.a.	58	55	n.a.	72	69	n.a.	60	52
In-person meetings for practices and others in CPC												
Very useful	n.a.	42%	43%	n.a.	46%	60%	n.a.	53%	48%	n.a.	25%	27%
Somewhat useful	n.a.	53%	53%	n.a.	44%	33%	n.a.	44%	52%	n.a.	63%	69%
Not very useful	n.a.	5%	4%	n.a.	10%	8%	n.a.	1%	0%	n.a.	11%	4%
Not at all useful	n.a.	1%	0%	n.a.	0%	0%	n.a.	1%	0%	n.a.	2%	0%
N	n.a.	420	402	n.a.	50	52	n.a.	68	65	n.a.	57	51
CPC Collaboration Website/CPC Connect												
Very useful	n.a.	25%	15%	n.a.	30%	25%	n.a.	15%	19%	n.a.	24%	17%
Somewhat useful	n.a.	49%	57%	n.a.	60%	56%	n.a.	40%	39%	n.a.	57%	62%
Not very useful	n.a.	22%	20%	n.a.	11%	15%	n.a.	35%	32%	n.a.	16%	19%
Not at all useful	n.a.	4%	8%	n.a.	0%	4%	n.a.	10%	10%	n.a.	3%	2%
N	n.a.	447	433	n.a.	57	55	n.a.	72	69	n.a.	58	53
CPC Web Application												
Very useful	n.a.	30%	32%	n.a.	43%	47%	n.a.	17%	16%	n.a.	45%	53%
Somewhat useful	n.a.	59%	58%	n.a.	50%	49%	n.a.	65%	74%	n.a.	50%	43%
Not very useful	n.a.	8%	8%	n.a.	7%	2%	n.a.	18%	9%	n.a.	3%	4%
Not at all useful	n.a.	3%	2%	n.a.	0%	2%	n.a.	0%	1%	n.a.	2%	0%
N	n.a.	445	431	n.a.	58	57	n.a.	72	69	n.a.	60	53

C5b Practices' attendance and rating of action group webinars in 2015

Percentage of practices that reported attending the following action group webinars												
Behavioral health integration (Milestone 2)	n.a.	62%	n.a.	n.a.	45%	n.a.	n.a.	83%	n.a.	n.a.	61%	n.a.

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Medication management (Milestone 2)	n.a.	58%	n.a.	n.a.	53%	n.a.	n.a.	57%	n.a.	n.a.	46%	n.a.
Self-management support (Milestone 2)	n.a.	82%	n.a.	n.a.	75%	n.a.	n.a.	76%	n.a.	n.a.	84%	n.a.
Access to care outside of office visits (Milestone 3)	n.a.	52%	n.a.	n.a.	40%	n.a.	n.a.	71%	n.a.	n.a.	43%	n.a.
Patient and family engagement (Milestone 4)	n.a.	60%	n.a.	n.a.	51%	n.a.	n.a.	81%	n.a.	n.a.	43%	n.a.
Use of care compacts to coordinate care (Milestone 6)	n.a.	49%	n.a.	n.a.	28%	n.a.	n.a.	67%	n.a.	n.a.	44%	n.a.
Use of decision aids in shared decision-making (Milestone 7)	n.a.	77%	n.a.	n.a.	65%	n.a.	n.a.	87%	n.a.	n.a.	84%	n.a.
N ^c	n.a.	437	n.a.	n.a.	56	n.a.	n.a.	71	n.a.	n.a.	59	n.a.
Of practices that reporting attending action group webinars in 2015, practice's rating of usefulness												
Practice rating of usefulness of action group webinar on behavioral health integration												
Very useful	n.a.	17%	n.a.	n.a.	20%	n.a.	n.a.	17%	n.a.	n.a.	21%	n.a.
Somewhat useful	n.a.	68%	n.a.	n.a.	48%	n.a.	n.a.	62%	n.a.	n.a.	71%	n.a.
Not very useful	n.a.	14%	n.a.	n.a.	28%	n.a.	n.a.	21%	n.a.	n.a.	6%	n.a.
Not at all useful	n.a.	1%	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.
N	n.a.	259	n.a.	n.a.	25	n.a.	n.a.	58	n.a.	n.a.	34	n.a.
Practice rating of usefulness of action group webinar on medication management												
Very useful	n.a.	33%	n.a.	n.a.	39%	n.a.	n.a.	33%	n.a.	n.a.	31%	n.a.
Somewhat useful	n.a.	62%	n.a.	n.a.	46%	n.a.	n.a.	67%	n.a.	n.a.	65%	n.a.
Not very useful	n.a.	4%	n.a.	n.a.	7%	n.a.	n.a.	0%	n.a.	n.a.	4%	n.a.
Not at all useful	n.a.	2%	n.a.	n.a.	7%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.
N	n.a.	239	n.a.	n.a.	28	n.a.	n.a.	39	n.a.	n.a.	26	n.a.
Practice rating of usefulness of action group webinar on self-management support												
Very useful	n.a.	31%	n.a.	n.a.	27%	n.a.	n.a.	28%	n.a.	n.a.	38%	n.a.
Somewhat useful	n.a.	63%	n.a.	n.a.	63%	n.a.	n.a.	68%	n.a.	n.a.	55%	n.a.
Not very useful	n.a.	6%	n.a.	n.a.	10%	n.a.	n.a.	4%	n.a.	n.a.	6%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.
N	n.a.	345	n.a.	n.a.	41	n.a.	n.a.	50	n.a.	n.a.	47	n.a.
Practice rating of usefulness of action group webinar on access to care outside of office visits												
Very useful	n.a.	24%	n.a.	n.a.	45%	n.a.	n.a.	15%	n.a.	n.a.	30%	n.a.
Somewhat useful	n.a.	66%	n.a.	n.a.	35%	n.a.	n.a.	73%	n.a.	n.a.	61%	n.a.
Not very useful	n.a.	8%	n.a.	n.a.	20%	n.a.	n.a.	13%	n.a.	n.a.	4%	n.a.
Not at all useful	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	4%	n.a.
N	n.a.	213	n.a.	n.a.	20	n.a.	n.a.	48	n.a.	n.a.	23	n.a.
Practice rating of usefulness of action group webinar on patient and family engagement												
Very useful	n.a.	31%	n.a.	n.a.	36%	n.a.	n.a.	30%	n.a.	n.a.	46%	n.a.
Somewhat useful	n.a.	58%	n.a.	n.a.	61%	n.a.	n.a.	43%	n.a.	n.a.	54%	n.a.

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not very useful	n.a.	10%	n.a.	n.a.	4%	n.a.	n.a.	28%	n.a.	n.a.	0%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.
N	n.a.	243	n.a.	n.a.	28	n.a.	n.a.	54	n.a.	n.a.	24	n.a.
Practice rating of usefulness of action group webinar on use of care compacts to coordinate care												
Very useful	n.a.	27%	n.a.	n.a.	33%	n.a.	n.a.	36%	n.a.	n.a.	36%	n.a.
Somewhat useful	n.a.	55%	n.a.	n.a.	47%	n.a.	n.a.	43%	n.a.	n.a.	59%	n.a.
Not very useful	n.a.	16%	n.a.	n.a.	20%	n.a.	n.a.	18%	n.a.	n.a.	5%	n.a.
Not at all useful	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.
N	n.a.	196	n.a.	n.a.	15	n.a.	n.a.	44	n.a.	n.a.	22	n.a.
Practice rating of usefulness of action group webinar on use of decision aids in shared decision-making												
Very useful	n.a.	28%	n.a.	n.a.	34%	n.a.	n.a.	26%	n.a.	n.a.	36%	n.a.
Somewhat useful	n.a.	62%	n.a.	n.a.	57%	n.a.	n.a.	57%	n.a.	n.a.	60%	n.a.
Not very useful	n.a.	9%	n.a.	n.a.	9%	n.a.	n.a.	17%	n.a.	n.a.	4%	n.a.
Not at all useful	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.
N	n.a.	321	n.a.	n.a.	35	n.a.	n.a.	58	n.a.	n.a.	47	n.a.

C5b Practice attendance and rating of rapid-cycle action groups in 2016

Percentage of practices that reported participating in any part of the rapid-cycle action group												
Leveraging Your Whole Team to Improve Chronic Disease Management	n.a.	n.a.	47%	n.a.	n.a.	43%	n.a.	n.a.	48%	n.a.	n.a.	56%
Capturing the Opportunity in Transitions of Care	n.a.	n.a.	43%	n.a.	n.a.	43%	n.a.	n.a.	56%	n.a.	n.a.	46%
Tightening the Nuts and Bolts of Your Care Management Process	n.a.	n.a.	44%	n.a.	n.a.	44%	n.a.	n.a.	55%	n.a.	n.a.	33%
From Screening to Treatment in Behavioral Health	n.a.	n.a.	27%	n.a.	n.a.	17%	n.a.	n.a.	42%	n.a.	n.a.	34%
Building and Sustaining Patient Relationships: Building the Bond Between the Care Team and Their Panel of Patients	n.a.	n.a.	30%	n.a.	n.a.	17%	n.a.	n.a.	33%	n.a.	n.a.	33%
Medication Management When it Matters Most	n.a.	n.a.	36%	n.a.	n.a.	46%	n.a.	n.a.	42%	n.a.	n.a.	37%
A Fresh Look at an Old Idea: Using a Plan of Care to Engage Patients in Their Own Care	n.a.	n.a.	32%	n.a.	n.a.	31%	n.a.	n.a.	35%	n.a.	n.a.	36%
Finding the Value in Shared Decision Making for Your Practice	n.a.	n.a.	39%	n.a.	n.a.	28%	n.a.	n.a.	44%	n.a.	n.a.	65%
N ^d	n.a.	n.a.	407	n.a.	n.a.	53	n.a.	n.a.	60	n.a.	n.a.	48

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Of practices that reporting attending rapid-cycle action groups in 2016, practice's rating of usefulness												
Practice rating of usefulness of Leveraging Your Whole Team to Improve Chronic Disease Management												
Very useful	n.a.	n.a.	27%	n.a.	n.a.	17%	n.a.	n.a.	46%	n.a.	n.a.	23%
Somewhat useful	n.a.	n.a.	60%	n.a.	n.a.	74%	n.a.	n.a.	50%	n.a.	n.a.	69%
Not very useful	n.a.	n.a.	11%	n.a.	n.a.	0%	n.a.	n.a.	4%	n.a.	n.a.	8%
Not at all useful	n.a.	n.a.	2%	n.a.	n.a.	9%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	189	n.a.	n.a.	23	n.a.	n.a.	28	n.a.	n.a.	26
Practice rating of usefulness of Capturing the Opportunity in Transitions of Care												
Very useful	n.a.	n.a.	33%	n.a.	n.a.	43%	n.a.	n.a.	43%	n.a.	n.a.	26%
Somewhat useful	n.a.	n.a.	62%	n.a.	n.a.	43%	n.a.	n.a.	57%	n.a.	n.a.	74%
Not very useful	n.a.	n.a.	3%	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	0%
Not at all useful	n.a.	n.a.	2%	n.a.	n.a.	9%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	162	n.a.	n.a.	23	n.a.	n.a.	28	n.a.	n.a.	19
Practice rating of usefulness of Tightening the Nuts and Bolts of Your Care Management Process												
Very useful	n.a.	n.a.	28%	n.a.	n.a.	26%	n.a.	n.a.	34%	n.a.	n.a.	7%
Somewhat useful	n.a.	n.a.	65%	n.a.	n.a.	70%	n.a.	n.a.	63%	n.a.	n.a.	87%
Not very useful	n.a.	n.a.	8%	n.a.	n.a.	4%	n.a.	n.a.	3%	n.a.	n.a.	7%
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	172	n.a.	n.a.	23	n.a.	n.a.	32	n.a.	n.a.	15
Practice rating of usefulness of From Screening to Treatment in Behavioral Health												
Very useful	n.a.	n.a.	24%	n.a.	n.a.	11%	n.a.	n.a.	38%	n.a.	n.a.	13%
Somewhat useful	n.a.	n.a.	69%	n.a.	n.a.	78%	n.a.	n.a.	50%	n.a.	n.a.	87%
Not very useful	n.a.	n.a.	6%	n.a.	n.a.	0%	n.a.	n.a.	13%	n.a.	n.a.	0%
Not at all useful	n.a.	n.a.	1%	n.a.	n.a.	11%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	104	n.a.	n.a.	9	n.a.	n.a.	24	n.a.	n.a.	15
Practice rating of usefulness of Building and Sustaining Patient Relationships												
Very useful	n.a.	n.a.	29%	n.a.	n.a.	22%	n.a.	n.a.	67%	n.a.	n.a.	14%
Somewhat useful	n.a.	n.a.	59%	n.a.	n.a.	44%	n.a.	n.a.	28%	n.a.	n.a.	79%
Not very useful	n.a.	n.a.	10%	n.a.	n.a.	22%	n.a.	n.a.	6%	n.a.	n.a.	7%
Not at all useful	n.a.	n.a.	2%	n.a.	n.a.	11%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	113	n.a.	n.a.	9	n.a.	n.a.	18	n.a.	n.a.	14
Practice rating of usefulness of Medication Management When it Matters Most												
Very useful	n.a.	n.a.	33%	n.a.	n.a.	43%	n.a.	n.a.	55%	n.a.	n.a.	31%
Somewhat useful	n.a.	n.a.	60%	n.a.	n.a.	57%	n.a.	n.a.	41%	n.a.	n.a.	56%
Not very useful	n.a.	n.a.	7%	n.a.	n.a.	0%	n.a.	n.a.	5%	n.a.	n.a.	13%

D.96

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	137	n.a.	n.a.	23	n.a.	n.a.	22	n.a.	n.a.	16
Practice rating of usefulness of Using a Plan of Care to Engage Patients in Their Own Care												
Very useful	n.a.	n.a.	33%	n.a.	n.a.	20%	n.a.	n.a.	58%	n.a.	n.a.	25%
Somewhat useful	n.a.	n.a.	60%	n.a.	n.a.	60%	n.a.	n.a.	42%	n.a.	n.a.	69%
Not very useful	n.a.	n.a.	6%	n.a.	n.a.	13%	n.a.	n.a.	0%	n.a.	n.a.	6%
Not at all useful	n.a.	n.a.	1%	n.a.	n.a.	7%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	121	n.a.	n.a.	15	n.a.	n.a.	19	n.a.	n.a.	16
Practice rating of usefulness of Finding the Value in Shared Decision Making for Your Practice												
Very useful	n.a.	n.a.	26%	n.a.	n.a.	29%	n.a.	n.a.	46%	n.a.	n.a.	21%
Somewhat useful	n.a.	n.a.	65%	n.a.	n.a.	57%	n.a.	n.a.	46%	n.a.	n.a.	72%
Not very useful	n.a.	n.a.	8%	n.a.	n.a.	7%	n.a.	n.a.	8%	n.a.	n.a.	7%
Not at all useful	n.a.	n.a.	1%	n.a.	n.a.	7%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	151	n.a.	n.a.	14	n.a.	n.a.	26	n.a.	n.a.	29
C9 CPC Support provides timely resolution to our practice's operational questions												
Strongly disagree	n.a.	7%	4%	n.a.	2%	7%	n.a.	10%	1%	n.a.	10%	11%
Disagree	n.a.	2%	1%	n.a.	2%	0%	n.a.	1%	1%	n.a.	0%	0%
Agree	n.a.	37%	41%	n.a.	42%	26%	n.a.	43%	40%	n.a.	17%	23%
Strongly agree	n.a.	45%	44%	n.a.	53%	63%	n.a.	40%	56%	n.a.	72%	62%
Did not contact CPC Support for operational questions	n.a.	9%	9%	n.a.	2%	4%	n.a.	6%	1%	n.a.	2%	4%
N	n.a.	449	443	n.a.	57	57	n.a.	72	68	n.a.	60	53
Experience with technical assistance from CPC payers and others among CPC practices												
C6 Practice received learning activities and assistance from other payers participating in CPC												
At least 1 Payer	74%	76%	71%	46%	55%	54%	74%	82%	77%	87%	82%	53%
N	461	449	443	61	58	56	74	72	69	61	60	53
C7 If received coaching or assistance, number of times in past 6 months received direct support from other payers participating in CPC (in person, over the phone, or via email)												
Mean	4.9	4.3	4.2	4.2	2.4	3.4	5.7	4.9	3.9	5.9	4.8	4.0
Median	3	3	3	4	2	2	6	2	3	5	4	4
Min	1	0	0	1	0	0	1	0	0	1	0	0
Max	25	85	33	15	6	10	20	85	20	25	20	10
N	304	338	315	27	32	30	51	58	52	47	49	28

D.97

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
C7a If received help from other payers participating in CPC in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	22%	30%	23%	26%	18%	42%	8%	24%	8%	40%	35%	30%
Somewhat helpful	67%	55%	73%	59%	71%	50%	78%	57%	86%	51%	56%	63%
Not very helpful	8%	14%	3%	11%	11%	8%	12%	19%	6%	6%	8%	7%
Not at all helpful	2%	2%	0%	4%	0%	0%	2%	0%	0%	2%	0%	0%
N	304	303	262	27	28	24	51	42	36	47	48	27
C8 Received coaching or assistance on how to improve primary care from the following sources in the past 6 months												
Payers or health plans not participating in CPC	17%	19%	21%	3%	5%	14%	19%	25%	35%	11%	23%	9%
Practice's healthcare system or medical group	50%	55%	56%	47%	45%	35%	49%	47%	49%	37%	32%	36%
Other local organizations	24%	15%	13%	30%	28%	19%	24%	17%	19%	16%	17%	9%
Regional Extension Center	22%	14%	14%	23%	19%	21%	14%	7%	3%	13%	8%	15%
Other practices outside of the healthcare system or medical group	24%	19%	17%	31%	33%	23%	22%	25%	4%	18%	15%	19%
Other	7%	5%	2%	9%	3%	5%	7%	11%	3%	3%	0%	0%
N	471	458	445	64	58	57	74	72	69	62	60	53
C8a_1 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, number of times												
Mean	3.2	2.6	3.2	2.0	2.3	4.9	2.2	3.2	4.2	5.0	3.4	2.6
Median	2	2	3	2	1	4	2	2	6	2	4	3
Min	1	1	1	2	1	1	1	1	2	1	1	1
Max	20	8	12	2	5	12	6	8	6	20	6	4
N	81	84	95	2	3	8	14	17	24	7	14	5
C8a_2 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	12%	17%	32%	0%	33%	88%	14%	11%	39%	14%	21%	20%
Somewhat helpful	79%	76%	66%	100%	33%	13%	86%	83%	61%	43%	64%	80%
Not very helpful	6%	7%	1%	0%	33%	0%	0%	6%	0%	29%	14%	0%
Not at all helpful	2%	0%	1%	0%	0%	0%	0%	0%	0%	14%	0%	0%
N	81	82	93	2	3	8	14	18	23	7	14	5
C8b_1 If received coaching/assistance from practice's healthcare system or medical group in the past 6 months, number of times												
Mean	20.5	18.1	11.4	15.8	6.0	7.9	15.9	16.0	10.4	26.3	23.8	8.7
Median	12	6	6	12	6	6	8	6	6	20	20	6

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Min	1	1	1	1	2	3	1	1	2	6	2	1
Max	100	100	100	100	15	24	100	100	100	100	99	30
N	234	244	242	30	26	20	36	33	34	23	18	19
C8b_2 If received coaching/assistance from practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	67%	59%	69%	71%	69%	65%	54%	41%	80%	77%	53%	68%
Somewhat helpful	31%	41%	31%	25%	31%	35%	46%	59%	20%	14%	47%	32%
Not very helpful	2%	0%	0%	4%	0%	0%	0%	0%	0%	9%	0%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	227	241	235	28	26	20	35	32	30	22	17	19
C8c_1 If received coaching/assistance from other local organizations in the past 6 months (e.g. QIOs medical society), number of times												
Mean	3.8	3.0	3.7	3.3	2.8	2.6	6.9	3.2	2.6	5.1	2.5	3.4
Median	2	2	2	2	3	2	3	2	2	3	1	3
Min	1	1	1	1	1	1	1	1	1	1	1	1
Max	40	20	25	10	10	10	40	6	12	18	6	6
N	112	65	57	19	16	11	18	11	13	10	10	5
C8c_2 If received coaching/assistance from other local organizations in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	52%	45%	43%	63%	75%	73%	53%	27%	18%	50%	20%	40%
Somewhat helpful	45%	55%	51%	38%	25%	27%	47%	73%	82%	40%	80%	60%
Not very helpful	2%	0%	6%	0%	0%	0%	0%	0%	0%	10%	0%	0%
Not at all helpful	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	94	67	53	16	16	11	17	11	11	10	10	5
C8d_1 If received coaching/assistance from regional extension center in the past 6 months, number of times												
Mean	6.3	6.1	4.0	4.1	2.1	3.3	8.1	3.5	4.0	4.1	3.6	7.9
Median	4	3	3	3	2	2.5	6	3.5	4	4	3	5
Min	1	1	1	1	1	1	1	1	2	1	1	2
Max	50	20	15	15	4	8	30	6	6	10	6	15
N	103	61	60	15	11	12	10	4	2	8	5	8
C8d_2 If received coaching/assistance from regional extension center in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	48%	48%	64%	71%	60%	75%	20%	0%	50%	43%	60%	63%
Somewhat helpful	47%	49%	31%	21%	40%	25%	70%	50%	50%	43%	40%	38%
Not very helpful	5%	3%	5%	7%	0%	0%	10%	50%	0%	14%	0%	0%

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	87	61	61	14	10	12	10	4	2	7	5	8
C8e_1 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, number of times												
Mean	3.5	3.5	2.3	3.4	3.4	2.5	4.6	3.5	1.3	4.6	3.6	2.7
Median	2	2	1.5	2	2	2	5.5	2	1	3	2	3
Min	1	1	1	1	1	1	1	1	1	1	1	1
Max	25	25	10	10	12	6	10	25	2	20	10	3
N	115	85	74	20	19	12	16	17	3	11	9	9
C8e_2 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	46%	64%	67%	56%	67%	58%	47%	67%	33%	36%	71%	60%
Somewhat helpful	52%	35%	29%	44%	33%	33%	47%	27%	67%	64%	29%	40%
Not very helpful	2%	1%	4%	0%	0%	8%	7%	7%	0%	0%	0%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	110	80	76	18	18	12	15	15	3	11	7	10
C8f_1 If received coaching/assistance from another source in the past 6 months, number of times												
Mean	9.2	7.0	5.9	3.5	6.5	13.5	4.0	11.4	5.5	11.0	0.0	0.0
Median	6	5	3	3.5	6.5	13.5	3	13	5.5	11	0.0	0.0
Min	1	1	1	1	1	2	1	2	3	10	0.0	0.0
Max	75	20	25	6	12	25	12	20	8	12	0.0	0.0
N	35	23	9	6	2	2	5	8	2	2	0	0
C8f_2 If received coaching/assistance from another source in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	61%	71%	73%	80%	50%	67%	75%	86%	100%	100%	0%	0%
Somewhat helpful	36%	24%	18%	20%	50%	33%	0%	14%	0%	0%	0%	0%
Not very helpful	3%	5%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%
Not at all helpful	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	33	21	11	5	2	3	4	7	2	2	0	0
Experience with technical assistance from payers and others among comparison practices												
B18 Received coaching or assistance from the following sources in the past 6 months												
Payers or health plans not participating in CPC	34%	42%	41%	30%	39%	53%	33%	46%	44%	24%	46%	39%

D.100

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Practice's healthcare system or medical group	29%	36%	39%	24%	27%	36%	36%	25%	37%	26%	41%	53%
Other local organizations	17%	25%	25%	12%	19%	19%	20%	26%	26%	11%	20%	17%
Regional Extension Center	6%	5%	4%	10%	3%	9%	15%	16%	2%	4%	7%	0%
Other practices outside of the healthcare system or medical group	10%	9%	11%	11%	13%	9%	15%	4%	12%	4%	10%	3%
Other	3%	5%	4%	4%	6%	4%	5%	5%	7%	4%	7%	6%
N	423	333	275	83	62	53	75	57	43	46	41	36
B18a_1 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, number of times												
Mean	7.4	9.4	5.5	8.7	7.9	6.0	8.7	7.8	9.9	11.4	8.3	3.9
Median	3	3	3	5	5	4	2	3	2	2	6	3
Min	1	1	1	1	1	1	1	1	1	1	1	1
Max	100	100	100	100	100	50	100	50	100	80	100	12
N	141	124	109	24	20	28	23	23	19	11	17	13
B18a_2 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	21%	24%	25%	25%	33%	29%	27%	19%	11%	0%	26%	57%
Somewhat helpful	61%	51%	64%	64%	46%	71%	42%	54%	79%	62%	42%	29%
Not very helpful	14%	18%	10%	11%	13%	0%	21%	23%	5%	38%	11%	14%
Not at all helpful	4%	7%	2%	0%	8%	0%	9%	4%	5%	0%	21%	0%
N	167	136	113	28	24	28	33	26	19	13	19	14
B18b_1 If received coaching/assistance from practices healthcare system or medical group in the past 6 months, number of times												
Mean	8.5	10.3	8.3	3.7	7.6	7.3	10.6	5.0	8.2	10.0	7.6	10.7
Median	3	6	5	2	6	6	4	4	4	3	10	10
Min	1	1	1	1	1	1	1	1	1	1	1	1
Max	100	100	100	52	12	30	100	24	100	100	20	30
N	119	106	101	20	15	19	26	14	16	10	13	17
B18b_2 If received coaching/assistance from practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	45%	61%	62%	39%	63%	58%	42%	57%	67%	43%	56%	61%
Somewhat helpful	50%	34%	36%	57%	31%	42%	48%	43%	33%	50%	31%	33%
Not very helpful	4%	3%	2%	4%	0%	0%	3%	0%	0%	7%	6%	6%
Not at all helpful	1%	2%	0%	0%	6%	0%	6%	0%	0%	0%	6%	0%
N	143	116	103	23	16	19	31	14	15	14	16	18

D.101

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B18c_1 If received coaching/assistance from other local organizations in the past 6 months (e.g. QIOs medical society), number of times												
Mean	3.9	4.4	3.7	3.0	3.0	3.9	5.9	5.2	6.7	2.9	4.0	4.1
Median	2	3	4	2	3	4	5	3	6	1	5	5
Min	1	1	1	2	1	1	1	1	2	1	1	1
Max	50	100	10	6	10	6	12	12	10	12	5	6
N	69	70	62	10	10	10	14	14	10	5	5	5
B18c_2 If received coaching/assistance from other local organizations in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	35%	36%	37%	33%	33%	50%	29%	64%	45%	29%	25%	17%
Somewhat helpful	55%	55%	54%	58%	50%	40%	52%	36%	55%	71%	50%	67%
Not very helpful	8%	5%	6%	8%	8%	10%	10%	0%	0%	0%	0%	17%
Not at all helpful	2%	4%	3%	0%	8%	0%	10%	0%	0%	0%	25%	0%
N	91	80	67	12	12	10	21	14	11	7	8	6
B18d_1 If received coaching/assistance from regional extension center in the past 6 months, number of times												
Mean	2.7	2.8	3.2	1.6	0.0	3.8	6.0	2.8	2.0	2.6	3.0	0.0
Median	2	3	3	2	0	4	6	3	2	3	3	0
Min	1	1	1	1	0	1	1	1	2	2	3	0
Max	10	6	5	3	0	5	10	6	2	3	3	0
N	27	12	8	8	0	5	11	7	1	2	1	0
B18d_2 If received coaching/assistance from regional extension center in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	50%	29%	10%	44%	0%	20%	59%	33%	0%	33%	0%	0%
Somewhat helpful	31%	41%	90%	22%	50%	80%	18%	44%	100%	67%	0%	0%
Not very helpful	14%	12%	0%	33%	0%	0%	12%	22%	0%	0%	0%	0%
Not at all helpful	5%	18%	0%	0%	50%	0%	12%	0%	0%	0%	100%	0%
N	42	17	10	9	2	5	17	9	1	3	2	0
B18e_1 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, number of times												
Mean	3.2	3.5	2.8	3.0	3.6	10.1	4.0	5.3	2.3	3.0	4.4	0.0
Median	3	4	2	3	3	3	3	6	2	3	5	0
Min	1	1	1	1	2	1	1	2	1	3	1	0
Max	30	10	50	5	6	50	10	6	4	3	5	0
N	43	25	25	9	6	5	10	2	5	2	2	0

Table D.10a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
B18e_2 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	47%	41%	54%	36%	43%	60%	47%	50%	60%	33%	33%	0%
Somewhat helpful	40%	41%	43%	55%	43%	40%	27%	50%	40%	67%	0%	100%
Not very helpful	11%	4%	4%	9%	0%	0%	20%	0%	0%	0%	0%	0%
Not at all helpful	2%	15%	0%	0%	14%	0%	7%	0%	0%	0%	67%	0%
N	55	27	28	11	7	5	15	2	5	3	3	1
B18f_1 If received coaching/assistance from another source in the past 6 months, number of times												
Mean	4.6	5.9	11.3	9.9	9.0	3.5	7.3	3.9	17.3	2.3	2.1	3.0
Median	2	8	3	12	10	3	8	4	20	2	2	3
Min	1	1	2	2	1	3	2	3	3	2	2	3
Max	20	10	24	15	10	8	10	4	20	4	3	3
N	13	14	9	3	3	2	4	2	3	2	2	1
B18f_2 If received coaching/assistance from another source in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	36%	61%	40%	50%	75%	50%	29%	100%	67%	50%	0%	50%
Somewhat helpful	36%	17%	50%	17%	0%	50%	43%	0%	33%	50%	67%	0%
Not very helpful	27%	6%	10%	33%	0%	0%	29%	0%	0%	0%	0%	50%
Not at all helpful	0%	17%	0%	0%	25%	0%	0%	0%	0%	0%	33%	0%
N	22	18	10	6	4	2	7	3	3	2	3	2

Sources: CPC practice surveys administered April through July 2014, April through August 2015, and April through August 2016.

Note: Question numbers pertain to the 2016 CPC practice survey.

^a We defined whether the practice is in a healthcare system or not using responses to two questions on the 2016 CPC practice survey. These questions asked practices to describe the medical organization that employs the clinicians at the practice site and who owns the practice. We considered practices with these responses to be in a healthcare system: group or staff model HMO; network of clinician practices owned by a hospital, hospital system, or medical school; public or private hospital, health system, or foundation owned by a hospital, or medical school or university.

^b The sample size shown here is the largest sample size for this set of questions. CPC-wide, question-specific sample sizes ranged from 446 (practice-to-practice learning) to 455 (webinars, and CPC Weekly Roundup email).

^c The sample size shown here is the largest sample size for this set of questions. CPC-wide, question-specific sample sizes ranged from 412 (use of care compacts) to 437 (self-management support).

^d The sample size shown here is the largest sample size for this set of questions. CPC-wide, question-specific sample sizes ranged from 384 (Building and Sustaining Patient Relationships) to 407 (Leveraging Your Whole Team to Improve Chronic Disease Management).

n.a. = not applicable because the question or response option was not provided in the given survey round.

Table D.10b. CPC practice experience with practice learning and assistance in 2014, 2015, and 2016, by region (NY, OH/KY, OK, OR)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Experience with technical assistance from regional learning faculty (RLF)												
C1 RLF directly communicates with												
Staff in practice site only	23%	23%	23%	12%	14%	12%	25%	26%	25%	24%	25%	20%
Staff in larger healthcare system or medical group only	44%	6%	31%	9%	12%	27%	5%	30%	33%	9%	31%	9%
A combination	33%	71%	46%	79%	74%	59%	70%	44%	43%	67%	40%	71%
Neither	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	5%	0%
N	66	66	66	75	74	74	61	61	61	66	65	65
Among practices in a healthcare system ^a , RLF directly communicates with												
Staff in practice site only	3%	8%	14%	0%	2%	2%	9%	9%	7%	9%	12%	6%
Staff in larger healthcare system or medical group only	32%	4%	36%	2%	12%	37%	7%	42%	44%	15%	38%	12%
A combination	65%	88%	50%	98%	86%	59%	84%	49%	49%	76%	47%	82%
Neither	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	3%	0%
N	31	24	22	51	50	51	45	43	43	34	34	34
Among practices not in healthcare system ^a , RLF directly communicates with												
Staff in practice site only	40%	32%	28%	38%	38%	35%	69%	67%	67%	41%	39%	35%
Staff in larger healthcare system or medical group only	54%	7%	28%	25%	13%	4%	0%	0%	6%	3%	23%	6%
A combination	6%	61%	44%	38%	50%	61%	31%	33%	28%	56%	32%	58%
Neither	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%
N	35	41	43	24	24	23	16	18	18	32	31	31
C2 Frequency of communication between practice and RLF												
Daily	0%	0%	2%	3%	0%	1%	2%	0%	2%	2%	0%	0%
Weekly	33%	21%	9%	56%	57%	49%	49%	7%	43%	23%	14%	9%
Monthly	53%	51%	36%	31%	16%	21%	28%	74%	41%	38%	46%	43%
Less than monthly	11%	27%	50%	9%	27%	8%	20%	18%	15%	35%	39%	43%
Never	3%	1%	3%	1%	0%	20%	2%	2%	0%	3%	2%	5%
N	66	67	64	75	75	75	61	61	61	66	59	65
C3 If practice and RLF communicate with each other, number of times RLF provided direct support to practice in past 6 months												
Mean	10.5	4.0	2.8	4.5	4.6	4.8	10.6	4.9	5.1	5.8	4.0	3.5
Median	4	3	2	2	2	2	6	3	4	3	3	2
Min	0	0	0	0	0	0	0	0	0	0	0	0
Max	50	18	10	30	25	25	75	18	24	50	12	15
N	64	66	61	71	75	60	57	60	61	64	53	62

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
C3a If practice and RLF communicate with each other, the type of direct support the practice site received from the RLF in past 6 months												
Primarily received help with practice improvement (implement new workflows, improve ongoing processes, meet CPC Milestones)	n.a	n.a	34%	n.a	n.a	18%	n.a	n.a	35%	n.a	n.a	14%
Primarily received help meeting administrative requirements (CPC reporting or data submission)	n.a	n.a	46%	n.a	n.a	51%	n.a	n.a	38%	n.a	n.a	53%
Received substantial amounts of help with practice improvements and administrative requirements	n.a	n.a	4%	n.a	n.a	25%	n.a	n.a	18%	n.a	n.a	27%
Did not receive, or received little support of this kind	n.a	n.a	16%	n.a	n.a	6%	n.a	n.a	8%	n.a	n.a	6%
N	n.a	n.a	56	n.a	n.a	51	n.a	n.a	60	n.a	n.a	51
C4 Practices' overall rating of the quality of all services from the regional learning faculty in meeting this practice site's CPC-related needs												
Excellent	23%	27%	14%	32%	39%	49%	17%	20%	33%	24%	20%	37%
Very good	38%	37%	34%	45%	47%	32%	40%	21%	48%	39%	46%	25%
Good	26%	33%	43%	17%	13%	12%	30%	49%	16%	21%	23%	32%
Fair	14%	3%	9%	4%	1%	4%	7%	8%	3%	12%	11%	6%
Poor	0%	0%	0%	1%	0%	3%	7%	2%	0%	3%	0%	0%
N	66	67	65	75	75	74	60	61	61	66	56	65
C5a Practices' rating of usefulness of CPC offered assistance in improving primary care												
Percentage of practices that reported receiving or attending the following types of assistance												
Practice-to-practice learning	n.a.	76%	63%	n.a.	89%	70%	n.a.	93%	90%	n.a.	79%	55%
In person coaching at this practice	n.a.	46%	36%	n.a.	49%	13%	n.a.	67%	89%	n.a.	63%	45%
Webinars	n.a.	100%	100%	n.a.	100%	100%	n.a.	98%	100%	n.a.	100%	98%
CPC weekly round-up email	n.a.	96%	95%	n.a.	100%	100%	n.a.	98%	98%	n.a.	100%	98%
In-person meetings for practices and others in CPC	n.a.	88%	67%	n.a.	96%	95%	n.a.	93%	98%	n.a.	95%	97%
CPC Collaboration Website/CPC Connect	n.a.	99%	92%	n.a.	97%	99%	n.a.	100%	97%	n.a.	100%	98%
CPC Web Application	n.a.	93%	91%	n.a.	95%	100%	n.a.	100%	93%	n.a.	100%	98%
N ^p	n.a.	67	64	n.a.	75	75	n.a.	61	61	n.a.	64	65
Of practices that reporting receiving assistance, practice's rating of usefulness												
Practice-to-practice learning												
Very useful	n.a.	25%	23%	n.a.	38%	29%	n.a.	51%	56%	n.a.	36%	33%
Somewhat useful	n.a.	65%	73%	n.a.	62%	67%	n.a.	42%	40%	n.a.	58%	58%
Not very useful	n.a.	10%	5%	n.a.	0%	4%	n.a.	5%	4%	n.a.	7%	8%
Not at all useful	n.a.	0%	0%	n.a.	0%	0%	n.a.	2%	0%	n.a.	0%	0%
N	n.a.	51	40	n.a.	66	52	n.a.	57	55	n.a.	45	36

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
In-person coaching at this practice												
Very useful	n.a.	35%	43%	n.a.	28%	50%	n.a.	15%	37%	n.a.	33%	62%
Somewhat useful	n.a.	58%	43%	n.a.	58%	40%	n.a.	71%	59%	n.a.	59%	21%
Not very useful	n.a.	6%	13%	n.a.	8%	10%	n.a.	12%	4%	n.a.	3%	17%
Not at all useful	n.a.	0%	0%	n.a.	6%	0%	n.a.	2%	0%	n.a.	5%	0%
N	n.a.	31	23	n.a.	36	10	n.a.	41	54	n.a.	39	29
Webinars												
Very useful	n.a.	21%	25%	n.a.	15%	10%	n.a.	15%	18%	n.a.	20%	16%
Somewhat useful	n.a.	72%	67%	n.a.	76%	82%	n.a.	78%	68%	n.a.	69%	63%
Not very useful	n.a.	7%	6%	n.a.	8%	4%	n.a.	5%	8%	n.a.	11%	19%
Not at all useful	n.a.	0%	2%	n.a.	1%	4%	n.a.	2%	5%	n.a.	0%	3%
N	n.a.	67	63	n.a.	75	73	n.a.	60	60	n.a.	64	64
CPC weekly round-up email												
Very useful	n.a.	44%	52%	n.a.	28%	63%	n.a.	30%	22%	n.a.	27%	13%
Somewhat useful	n.a.	45%	37%	n.a.	51%	25%	n.a.	53%	41%	n.a.	71%	71%
Not very useful	n.a.	9%	7%	n.a.	19%	10%	n.a.	10%	34%	n.a.	2%	13%
Not at all useful	n.a.	2%	5%	n.a.	1%	3%	n.a.	7%	3%	n.a.	0%	3%
N	n.a.	64	60	n.a.	74	73	n.a.	60	59	n.a.	63	63
In-person meetings for practices and others in CPC												
Very useful	n.a.	31%	62%	n.a.	35%	37%	n.a.	65%	30%	n.a.	38%	42%
Somewhat useful	n.a.	63%	33%	n.a.	64%	61%	n.a.	33%	62%	n.a.	55%	55%
Not very useful	n.a.	7%	5%	n.a.	1%	1%	n.a.	0%	8%	n.a.	3%	3%
Not at all useful	n.a.	0%	0%	n.a.	0%	0%	n.a.	2%	0%	n.a.	3%	0%
N	n.a.	59	42	n.a.	69	70	n.a.	57	60	n.a.	60	62
CPC Collaboration Website/CPC Connect												
Very useful	n.a.	32%	15%	n.a.	37%	7%	n.a.	22%	19%	n.a.	13%	5%
Somewhat useful	n.a.	50%	63%	n.a.	49%	73%	n.a.	32%	44%	n.a.	60%	63%
Not very useful	n.a.	17%	19%	n.a.	8%	19%	n.a.	42%	8%	n.a.	24%	28%
Not at all useful	n.a.	2%	3%	n.a.	6%	1%	n.a.	5%	29%	n.a.	3%	5%
N	n.a.	66	59	n.a.	71	74	n.a.	60	59	n.a.	63	64
CPC Web Application												
Very useful	n.a.	35%	40%	n.a.	26%	25%	n.a.	28%	28%	n.a.	22%	22%
Somewhat useful	n.a.	61%	52%	n.a.	62%	64%	n.a.	56%	63%	n.a.	65%	56%
Not very useful	n.a.	2%	7%	n.a.	6%	10%	n.a.	8%	7%	n.a.	10%	19%
Not at all useful	n.a.	2%	2%	n.a.	6%	1%	n.a.	8%	2%	n.a.	3%	3%
N	n.a.	62	58	n.a.	69	73	n.a.	61	57	n.a.	63	64
C5b Practices' attendance and rating of action group webinars in 2015												
Percentage of practices that reported attending the following action group webinars												
Behavioral health integration (Milestone 2)	n.a.	41%	n.a.	n.a.	76%	n.a.	n.a.	41%	n.a.	n.a.	82%	n.a.
Medication management (Milestone 2)	n.a.	52%	n.a.	n.a.	80%	n.a.	n.a.	66%	n.a.	n.a.	53%	n.a.

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Self-management support (Milestone 2)	n.a.	83%	n.a.	n.a.	97%	n.a.	n.a.	79%	n.a.	n.a.	73%	n.a.
Access to care outside of office visits (Milestone 3)	n.a.	59%	n.a.	n.a.	75%	n.a.	n.a.	35%	n.a.	n.a.	38%	n.a.
Patient and family engagement (Milestone 4)	n.a.	56%	n.a.	n.a.	75%	n.a.	n.a.	37%	n.a.	n.a.	71%	n.a.
Use of care compacts to coordinate care (Milestone 6)	n.a.	45%	n.a.	n.a.	68%	n.a.	n.a.	31%	n.a.	n.a.	56%	n.a.
Use of decision aids in shared decision-making (Milestone 7)	n.a.	63%	n.a.	n.a.	87%	n.a.	n.a.	79%	n.a.	n.a.	74%	n.a.
N ^c	n.a.	66	n.a.	n.a.	74	n.a.	n.a.	58	n.a.	n.a.	61	n.a.
Of practices that reporting attending action group webinars in 2015, practice's rating of usefulness												
Practice rating of usefulness of action group webinar on behavioral health integration												
Very useful	n.a.	4%	n.a.	n.a.	13%	n.a.	n.a.	17%	n.a.	n.a.	21%	n.a.
Somewhat useful	n.a.	81%	n.a.	n.a.	76%	n.a.	n.a.	65%	n.a.	n.a.	71%	n.a.
Not very useful	n.a.	15%	n.a.	n.a.	11%	n.a.	n.a.	17%	n.a.	n.a.	6%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.
N	n.a.	26	n.a.	n.a.	45	n.a.	n.a.	23	n.a.	n.a.	48	n.a.
Practice rating of usefulness of action group webinar on medication management												
Very useful	n.a.	40%	n.a.	n.a.	11%	n.a.	n.a.	50%	n.a.	n.a.	32%	n.a.
Somewhat useful	n.a.	57%	n.a.	n.a.	85%	n.a.	n.a.	47%	n.a.	n.a.	52%	n.a.
Not very useful	n.a.	0%	n.a.	n.a.	4%	n.a.	n.a.	3%	n.a.	n.a.	13%	n.a.
Not at all useful	n.a.	3%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.
N	n.a.	30	n.a.	n.a.	47	n.a.	n.a.	38	n.a.	n.a.	31	n.a.
Practice rating of usefulness of action group webinar on self-management support												
Very useful	n.a.	33%	n.a.	n.a.	18%	n.a.	n.a.	56%	n.a.	n.a.	26%	n.a.
Somewhat useful	n.a.	63%	n.a.	n.a.	77%	n.a.	n.a.	38%	n.a.	n.a.	67%	n.a.
Not very useful	n.a.	4%	n.a.	n.a.	4%	n.a.	n.a.	4%	n.a.	n.a.	7%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.
N	n.a.	49	n.a.	n.a.	71	n.a.	n.a.	45	n.a.	n.a.	42	n.a.
Practice rating of usefulness of action group webinar on access to care outside of office visits												
Very useful	n.a.	31%	n.a.	n.a.	18%	n.a.	n.a.	25%	n.a.	n.a.	23%	n.a.
Somewhat useful	n.a.	67%	n.a.	n.a.	75%	n.a.	n.a.	60%	n.a.	n.a.	68%	n.a.
Not very useful	n.a.	3%	n.a.	n.a.	7%	n.a.	n.a.	5%	n.a.	n.a.	9%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	10%	n.a.	n.a.	0%	n.a.
N	n.a.	36	n.a.	n.a.	44	n.a.	n.a.	20	n.a.	n.a.	22	n.a.
Practice rating of usefulness of action group webinar on patient and family engagement												
Very useful	n.a.	41%	n.a.	n.a.	16%	n.a.	n.a.	30%	n.a.	n.a.	28%	n.a.
Somewhat useful	n.a.	53%	n.a.	n.a.	79%	n.a.	n.a.	60%	n.a.	n.a.	63%	n.a.
Not very useful	n.a.	6%	n.a.	n.a.	5%	n.a.	n.a.	5%	n.a.	n.a.	10%	n.a.

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	5%	n.a.	n.a.	0%	n.a.
N	n.a.	34	n.a.	n.a.	43	n.a.	n.a.	20	n.a.	n.a.	40	n.a.
Practice rating of usefulness of action group webinar on use of care compacts to coordinate care												
Very useful	n.a.	29%	n.a.	n.a.	21%	n.a.	n.a.	18%	n.a.	n.a.	16%	n.a.
Somewhat useful	n.a.	61%	n.a.	n.a.	64%	n.a.	n.a.	53%	n.a.	n.a.	58%	n.a.
Not very useful	n.a.	11%	n.a.	n.a.	15%	n.a.	n.a.	18%	n.a.	n.a.	26%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	12%	n.a.	n.a.	0%	n.a.
N	n.a.	28	n.a.	n.a.	39	n.a.	n.a.	17	n.a.	n.a.	31	n.a.
Practice rating of usefulness of action group webinar on use of decision aids in shared decision-making												
Very useful	n.a.	31%	n.a.	n.a.	15%	n.a.	n.a.	30%	n.a.	n.a.	29%	n.a.
Somewhat useful	n.a.	64%	n.a.	n.a.	79%	n.a.	n.a.	61%	n.a.	n.a.	56%	n.a.
Not very useful	n.a.	5%	n.a.	n.a.	6%	n.a.	n.a.	5%	n.a.	n.a.	13%	n.a.
Not at all useful	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	5%	n.a.	n.a.	2%	n.a.
N	n.a.	39	n.a.	n.a.	53	n.a.	n.a.	44	n.a.	n.a.	45	n.a.
C5b Practice attendance and rating of rapid-cycle action groups in 2016												
Percentage of practices that reported participating in any part of the rapid-cycle action group												
Leveraging Your Whole Team to Improve Chronic Disease Management	n.a.	n.a.	45%	n.a.	n.a.	62%	n.a.	n.a.	28%	n.a.	n.a.	49%
Capturing the Opportunity in Transitions of Care	n.a.	n.a.	69%	n.a.	n.a.	39%	n.a.	n.a.	21%	n.a.	n.a.	35%
Tightening the Nuts and Bolts of Your Care Management Process	n.a.	n.a.	58%	n.a.	n.a.	35%	n.a.	n.a.	37%	n.a.	n.a.	43%
From Screening to Treatment in Behavioral Health	n.a.	n.a.	36%	n.a.	n.a.	18%	n.a.	n.a.	11%	n.a.	n.a.	34%
Building and Sustaining Patient Relationships: Building the Bond Between the Care Team and Their Panel of Patients	n.a.	n.a.	51%	n.a.	n.a.	30%	n.a.	n.a.	21%	n.a.	n.a.	26%
Medication Management When it Matters Most	n.a.	n.a.	51%	n.a.	n.a.	41%	n.a.	n.a.	11%	n.a.	n.a.	31%
A Fresh Look at an Old Idea: Using a Plan of Care to Engage Patients in Their Own Care	n.a.	n.a.	43%	n.a.	n.a.	22%	n.a.	n.a.	30%	n.a.	n.a.	32%
Finding the Value in Shared Decision Making for Your Practice	n.a.	n.a.	47%	n.a.	n.a.	36%	n.a.	n.a.	16%	n.a.	n.a.	42%
N ^d	n.a.	n.a.	55	n.a.	n.a.	66	n.a.	n.a.	61	n.a.	n.a.	65
Of practices that reporting attending rapid-cycle action groups in 2016, practice's rating of usefulness												
Practice rating of usefulness of Leveraging Your Whole Team to Improve Chronic Disease Management												
Very useful	n.a.	n.a.	60%	n.a.	n.a.	21%	n.a.	n.a.	12%	n.a.	n.a.	10%
Somewhat useful	n.a.	n.a.	36%	n.a.	n.a.	64%	n.a.	n.a.	76%	n.a.	n.a.	58%
Not very useful	n.a.	n.a.	0%	n.a.	n.a.	15%	n.a.	n.a.	12%	n.a.	n.a.	32%
Not at all useful	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
N	n.a.	n.a.	25	n.a.	n.a.	39	n.a.	n.a.	17	n.a.	n.a.	31
Practice rating of usefulness of Capturing the Opportunity in Transitions of Care												
Very useful	n.a.	n.a.	47%	n.a.	n.a.	13%	n.a.	n.a.	33%	n.a.	n.a.	14%
Somewhat useful	n.a.	n.a.	47%	n.a.	n.a.	87%	n.a.	n.a.	50%	n.a.	n.a.	81%
Not very useful	n.a.	n.a.	3%	n.a.	n.a.	0%	n.a.	n.a.	17%	n.a.	n.a.	5%
Not at all useful	n.a.	n.a.	3%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	36	n.a.	n.a.	23	n.a.	n.a.	12	n.a.	n.a.	21
Practice rating of usefulness of Tightening the Nuts and Bolts of Your Care Management Process												
Very useful	n.a.	n.a.	53%	n.a.	n.a.	17%	n.a.	n.a.	14%	n.a.	n.a.	23%
Somewhat useful	n.a.	n.a.	47%	n.a.	n.a.	83%	n.a.	n.a.	62%	n.a.	n.a.	58%
Not very useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	24%	n.a.	n.a.	19%
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	32	n.a.	n.a.	23	n.a.	n.a.	21	n.a.	n.a.	26
Practice rating of usefulness of From Screening to Treatment in Behavioral Health												
Very useful	n.a.	n.a.	47%	n.a.	n.a.	9%	n.a.	n.a.	33%	n.a.	n.a.	5%
Somewhat useful	n.a.	n.a.	42%	n.a.	n.a.	82%	n.a.	n.a.	67%	n.a.	n.a.	95%
Not very useful	n.a.	n.a.	11%	n.a.	n.a.	9%	n.a.	n.a.	0%	n.a.	n.a.	0%
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	19	n.a.	n.a.	11	n.a.	n.a.	6	n.a.	n.a.	20
Practice rating of usefulness of Building and Sustaining Patient Relationships												
Very useful	n.a.	n.a.	41%	n.a.	n.a.	6%	n.a.	n.a.	17%	n.a.	n.a.	20%
Somewhat useful	n.a.	n.a.	52%	n.a.	n.a.	94%	n.a.	n.a.	50%	n.a.	n.a.	67%
Not very useful	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	33%	n.a.	n.a.	13%
Not at all useful	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	27	n.a.	n.a.	18	n.a.	n.a.	12	n.a.	n.a.	15
Practice rating of usefulness of Medication Management When it Matters Most												
Very useful	n.a.	n.a.	38%	n.a.	n.a.	23%	n.a.	n.a.	17%	n.a.	n.a.	6%
Somewhat useful	n.a.	n.a.	58%	n.a.	n.a.	62%	n.a.	n.a.	83%	n.a.	n.a.	83%
Not very useful	n.a.	n.a.	4%	n.a.	n.a.	15%	n.a.	n.a.	0%	n.a.	n.a.	11%
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	26	n.a.	n.a.	26	n.a.	n.a.	6	n.a.	n.a.	18
Practice rating of usefulness of Using a Plan of Care to Engage Patients in Their Own Care												
Very useful	n.a.	n.a.	55%	n.a.	n.a.	23%	n.a.	n.a.	29%	n.a.	n.a.	11%
Somewhat useful	n.a.	n.a.	45%	n.a.	n.a.	69%	n.a.	n.a.	65%	n.a.	n.a.	79%
Not very useful	n.a.	n.a.	0%	n.a.	n.a.	8%	n.a.	n.a.	6%	n.a.	n.a.	11%
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
N	n.a.	n.a.	22	n.a.	n.a.	13	n.a.	n.a.	17	n.a.	n.a.	19
Practice rating of usefulness of Finding the Value in Shared Decision Making for Your Practice												
Very useful	n.a.	n.a.	33%	n.a.	n.a.	21%	n.a.	n.a.	11%	n.a.	n.a.	16%
Somewhat useful	n.a.	n.a.	63%	n.a.	n.a.	71%	n.a.	n.a.	89%	n.a.	n.a.	68%
Not very useful	n.a.	n.a.	4%	n.a.	n.a.	8%	n.a.	n.a.	0%	n.a.	n.a.	16%
Not at all useful	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	24	n.a.	n.a.	24	n.a.	n.a.	9	n.a.	n.a.	25
C9 CPC Support provides timely resolution to our practice's operational questions												
Strongly disagree	n.a.	3%	3%	n.a.	16%	4%	n.a.	3%	0%	n.a.	5%	3%
Disagree	n.a.	0%	3%	n.a.	0%	0%	n.a.	2%	0%	n.a.	11%	5%
Agree	n.a.	49%	32%	n.a.	24%	48%	n.a.	64%	62%	n.a.	18%	49%
Strongly agree	n.a.	33%	45%	n.a.	48%	29%	n.a.	16%	23%	n.a.	58%	38%
Did not contact CPC Support for operational questions	n.a.	15%	17%	n.a.	12%	19%	n.a.	15%	15%	n.a.	9%	5%
N	n.a.	67	65	n.a.	75	75	n.a.	61	60	n.a.	57	65
Experience with technical assistance from CPC payers and others among CPC practices												
C6 Practice received learning activities and assistance from other payers participating in CPC												
At least 1 Payer	61%	79%	74%	93%	75%	96%	87%	90%	85%	71%	64%	52%
N	67	67	65	73	73	74	60	61	61	65	58	65
C7 If received coaching or assistance, number of times in past 6 months received direct support from other payers participating in CPC (in person, over the phone, or via email)												
Mean	8.7	3.0	3.2	2.2	6.9	5.9	5.8	3.4	4.1	3.3	3.7	3.5
Median	5	2	3	2	1	2	6	3	4	2	2	2
Min	1	0	0	1	0	0	1	1	0	1	0	0
Max	24	8	15	16	32	33	15	10	12	25	24	20
N	31	53	47	62	55	71	47	55	53	39	36	34
C7a If received help from other payers participating in CPC in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	26%	34%	15%	8%	29%	23%	40%	35%	33%	15%	29%	14%
Somewhat helpful	74%	54%	83%	81%	40%	74%	57%	60%	65%	64%	50%	86%
Not very helpful	0%	12%	2%	8%	25%	2%	2%	4%	2%	18%	18%	0%
Not at all helpful	0%	0%	0%	3%	6%	2%	0%	2%	0%	3%	4%	0%
N	31	50	41	62	52	53	47	55	52	39	28	29
C8 Received coaching or assistance on how to improve primary care from the following sources in the past 6 months												

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Payers or health plans not participating in CPC	21%	30%	23%	31%	19%	15%	6%	10%	33%	26%	17%	18%
Practice's healthcare system or medical group	38%	52%	46%	60%	83%	84%	69%	72%	75%	47%	51%	54%
Other local organizations	4%	10%	9%	36%	5%	8%	26%	11%	5%	29%	18%	20%
Regional Extension Center	28%	21%	12%	41%	24%	27%	11%	5%	11%	20%	12%	6%
Other practices outside of the healthcare system or medical group	21%	6%	6%	24%	13%	12%	37%	15%	46%	20%	28%	15%
Other	3%	0%	3%	15%	4%	3%	5%	2%	2%	9%	14%	2%
N	68	67	65	75	75	75	62	61	61	66	65	65
C8a_1 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, number of times												
Mean	7.2	2.7	1.8	2.4	1.2	2.3	2.0	2.7	3.4	1.8	2.2	3.2
Median	10	3	1	2	1	1	1.5	2.5	3	1	1.5	3
Min	2	1	1	1	1	1	1	1	2	1	1	1
Max	10	6	4	8	3	6	4	5	10	6	6	6
N	14	20	15	23	13	11	4	6	20	17	11	12
C8a_2 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	14%	17%	53%	17%	14%	10%	25%	50%	10%	0%	0%	17%
Somewhat helpful	79%	83%	47%	78%	86%	90%	75%	50%	85%	88%	78%	75%
Not very helpful	7%	0%	0%	4%	0%	0%	0%	0%	0%	6%	22%	8%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	5%	6%	0%	0%
N	14	18	15	23	14	10	4	6	20	17	9	12
C8b_1 If received coaching/assistance from practice's healthcare system or medical group in the past 6 months, number of times												
Mean	28.1	7.5	6.9	27.8	36.4	17.5	17.4	10.8	9.0	13.4	12.6	11.8
Median	18	6	4	15	30	11	12	6	6	10	6	6
Min	5	1	1	1	1	1	1	1	1	1	1	2
Max	100	36	52	100	100	100	100	100	52	50	100	100
N	26	30	30	45	60	60	43	44	44	31	33	35
C8b_2 If received coaching/assistance from practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	88%	61%	71%	44%	49%	61%	75%	74%	70%	77%	64%	69%
Somewhat helpful	12%	39%	29%	53%	49%	39%	25%	26%	30%	23%	36%	31%
Not very helpful	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	26	31	28	45	59	59	40	43	44	31	33	35

D.111

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
C8c_1 If received coaching/assistance from other local organizations in the past 6 months (e.g. QIOs medical society), number of times												
Mean	2.0	1.6	2.8	2.8	3.0	8.3	2.0	2.0	3.3	3.6	4.6	4.1
Median	1	1	2.5	2	3.5	6.5	1	1	2	2	3	2
Min	1	1	1	1	1	2	1	1	2	1	1	1
Max	4	3	5	6	4	24	6	6	6	12	20	25
N	3	5	6	27	4	6	16	7	3	19	12	13
C8c_2 If received coaching/assistance from other local organizations in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	33%	29%	100%	69%	50%	60%	56%	71%	33%	32%	33%	8%
Somewhat helpful	67%	71%	0%	31%	50%	20%	44%	29%	67%	58%	67%	75%
Not very helpful	0%	0%	0%	0%	0%	20%	0%	0%	0%	5%	0%	17%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%
N	3	7	6	13	4	5	16	7	3	19	12	12
C8d_1 If received coaching/assistance from regional extension center in the past 6 months, number of times												
Mean	5.4	3.4	2.5	9.5	12.3	4.4	3.0	2.0	2.0	4.2	6.3	2.5
Median	5	3.5	1.5	3	15	5	2	2	2	2	5	2.5
Min	1	1	1	1	1	1	1	1	1	1	1	1
Max	12	6	6	50	20	10	6	3	3	15	12	4
N	19	12	8	31	18	20	7	3	6	13	8	4
C8d_2 If received coaching/assistance from regional extension center in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	74%	57%	75%	17%	39%	65%	57%	33%	29%	50%	57%	75%
Somewhat helpful	26%	43%	25%	83%	61%	30%	29%	67%	43%	50%	43%	25%
Not very helpful	0%	0%	0%	0%	0%	5%	14%	0%	29%	0%	0%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	19	14	8	18	18	20	7	3	7	12	7	4
C8e_1 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, number of times												
Mean	4.5	1.0	3.3	3.6	5.6	5.2	1.2	2.2	1.1	4.2	3.6	2.2
Median	5	1	4	3	5.5	5	1	2	1	2	3	2
Min	1	1	1	1	2	1	1	1	1	1	1	1
Max	10	1	4	6	10	10	2	4	3	25	12	6
N	14	4	4	18	10	9	23	9	27	13	17	10

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
C8e_2 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	14%	50%	75%	67%	56%	33%	57%	67%	89%	31%	61%	60%
Somewhat helpful	86%	50%	25%	28%	44%	56%	43%	33%	7%	69%	39%	40%
Not very helpful	0%	0%	0%	6%	0%	11%	0%	0%	4%	0%	0%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	14	4	4	18	9	9	21	9	28	13	18	10
C8f_1 If received coaching/assistance from another source in the past 6 months, number of times												
Mean	10.5	0.0	2.5	11.0	7.0	2.0	3.7	5.0	6.0	17.7	3.4	0.0
Median	10.5	0.0	2.5	10	10	2	4	5	6	8	3	0
Min	1	0	2	6	1	1	3	5	6	1	1	0
Max	20	0	3	25	10	3	4	5	6	75	6	0
N	2	0	2	11	3	2	3	1	1	6	9	0
C8f_2 If received coaching/assistance from another source in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	100%	0%	100%	18%	67%	50%	100%	100%	100%	67%	63%	0%
Somewhat helpful	0%	0%	0%	82%	33%	50%	0%	0%	0%	33%	25%	0%
Not very helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
N	2	0	2	11	3	2	3	1	1	6	8	1
Experience with technical assistance from payers and others among comparison practices												
B18 Received coaching or assistance from the following sources in the past 6 months												
Payers or health plans not participating in CPC	30%	37%	41%	38%	44%	39%	35%	32%	32%	47%	48%	37%
Practice's healthcare system or medical group	20%	14%	11%	33%	53%	43%	23%	32%	32%	36%	60%	53%
Other local organizations	11%	6%	19%	19%	40%	34%	17%	15%	15%	24%	43%	42%
Regional Extension Center	0%	0%	4%	4%	5%	5%	2%	2%	0%	4%	0%	3%
Other practices outside of the healthcare system or medical group	9%	6%	11%	10%	16%	27%	10%	5%	3%	11%	10%	5%
Other	2%	0%	0%	3%	11%	5%	0%	5%	0%	2%	0%	3%
N	44	35	27	72	55	44	48	41	34	55	42	38
B18a_1 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, number of times												
Mean	4.4	12.7	4.6	6.7	9.7	4.6	13.0	10.7	7.1	2.5	9.8	3.4
Median	2	4	5	3	3	2	3	2	3	2	2	3
Min	1	1	2	1	1	1	1	1	1	1	1	1
Max	50	100	6	100	75	50	100	100	100	6	30	6

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
N	13	12	10	27	21	15	17	11	11	26	20	13
B18a_2 If received coaching/assistance from payers or health plans not participating in CPC in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	36%	18%	40%	17%	33%	18%	25%	15%	9%	14%	16%	14%
Somewhat helpful	64%	73%	60%	70%	54%	71%	45%	62%	82%	79%	42%	43%
Not very helpful	0%	0%	0%	10%	13%	12%	15%	15%	0%	7%	42%	43%
Not at all helpful	0%	9%	0%	3%	0%	0%	15%	8%	9%	0%	0%	0%
N	14	11	10	30	24	17	20	13	11	29	19	14
B18b_1 If received coaching/assistance from practices healthcare system or medical group in the past 6 months, number of times												
Mean	4.4	10.4	16.0	8.4	19.4	8.9	16.5	3.7	7.0	5.5	8.2	3.9
Median	1	4	2	6	6	5	10	4	6	4	6	3
Min	1	2	2	1	1	1	1	1	1	1	1	1
Max	50	100	100	25	100	75	100	6	12	30	45	12
N	9	5	2	23	25	17	11	11	11	20	23	19
B18b_2 If received coaching/assistance from practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	36%	50%	100%	57%	69%	63%	46%	54%	73%	48%	63%	53%
Somewhat helpful	64%	50%	0%	43%	31%	32%	38%	46%	27%	52%	25%	47%
Not very helpful	0%	0%	0%	0%	0%	5%	15%	0%	0%	0%	13%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	11	4	2	28	29	19	13	13	11	23	24	19
B18c_1 If received coaching/assistance from other local organizations in the past 6 months (e.g. QIOs medical society), number of times												
Mean	4.1	9.7	5.9	4.2	4.8	1.7	3.9	3.2	6.2	2.3	2.6	2.0
Median	1	10	6	2	3	1	2	4	6	2	2	1
Min	1	6	3	1	1	1	1	1	2	1	1	1
Max	8	10	6	50	100	6	12	4	10	6	6	4
N	5	2	4	14	18	13	8	5	5	13	16	15
B18c_2 If received coaching/assistance from other local organizations in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	43%	50%	60%	35%	36%	33%	45%	50%	40%	38%	13%	27%
Somewhat helpful	57%	50%	40%	53%	64%	53%	36%	50%	40%	63%	69%	67%
Not very helpful	0%	0%	0%	12%	0%	7%	18%	0%	0%	0%	19%	7%
Not at all helpful	0%	0%	0%	0%	0%	7%	0%	0%	20%	0%	0%	0%

D.114

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
N	7	2	5	17	22	15	11	6	5	16	16	15
B18d_1 If received coaching/assistance from regional extension center in the past 6 months, number of times												
Mean	0.0	0.0	3.0	3.5	1.5	0.0	5.0	6.0	0.0	1.0	0.0	1.0
Median	0	0	3	2	1	0	5	6	0	1	0	1
Min	0	0	3	2	1	0	5	6	0	1	0	1
Max	0	0	3	6	3	0	5	6	0	1	0	1
N	0	0	1	3	3	0	1	1	0	2	0	1
B18d_2 If received coaching/assistance from regional extension center in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	100%	0%	0%	50%	33%	0%	50%	100%	0%	25%	0%	0%
Somewhat helpful	0%	0%	100%	50%	67%	100%	0%	0%	0%	75%	0%	100%
Not very helpful	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	1	0	1	6	3	2	2	1	0	4	0	1
B18e_1 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, number of times												
Mean	2.2	2.5	7.1	3.3	3.6	2.1	4.6	5.1	1.0	2.1	1.4	2.7
Median	2	2	12	2	5	2	1	6	1	2	1	2
Min	1	2	2	2	1	1	1	4	1	1	1	2
Max	4	10	12	10	6	10	30	6	1	3	2	6
N	4	2	2	7	8	10	5	2	1	6	3	2
B18e_2 If received coaching/assistance from other practices outside of practice's healthcare system or medical group in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	75%	50%	67%	63%	44%	45%	67%	50%	0%	25%	0%	100%
Somewhat helpful	25%	50%	33%	38%	56%	45%	17%	50%	100%	63%	0%	0%
Not very helpful	0%	0%	0%	0%	0%	9%	17%	0%	0%	13%	50%	0%
Not at all helpful	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%
N	4	2	3	8	9	11	6	2	1	8	2	2
B18f_1 If received coaching/assistance from another source in the past 6 months, number of times												
Mean	1.0	0.0	0.0	7.7	6.1	21.2	0.0	6.3	0.0	3.0	0.0	2.0
Median	1	0	0	3	8	24	0	10	0	3	0	2
Min	1	0	0	3	1	6	0	2	0	3	0	2
Max	1	0	0	20	8	24	0	10	0	3	0	2

D.115

Table D.10b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
N	1	0	0	2	5	2	0	2	0	1	0	1
B18f_2 If received coaching/assistance from another source in the past 6 months, rating of helpfulness in improving primary care at the practice												
Very helpful	0%	0%	0%	67%	67%	0%	0%	50%	0%	0%	0%	0%
Somewhat helpful	100%	0%	0%	33%	0%	100%	0%	50%	0%	50%	0%	100%
Not very helpful	0%	0%	0%	0%	17%	0%	100%	0%	0%	50%	0%	0%
Not at all helpful	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	0%
N	1	0	0	3	6	2	1	2	0	2	0	1

Sources: CPC practice surveys administered April through July 2014, April through August 2015, and April through August 2016.

Note: Question numbers pertain to the 2016 CPC practice survey.

^a We defined whether the practice is in a healthcare system or not using responses to two questions on the 2016 CPC practice survey. These questions asked practices to describe the medical organization that employs the clinicians at the practice site and who owns the practice. We considered practices with these responses to be in a healthcare system: group or staff model HMO; network of clinician practices owned by a hospital, hospital system, or medical school; public or private hospital, health system, or foundation owned by a hospital, or medical school or university.

^b The sample size shown here is the largest sample size for this set of questions. CPC-wide, question-specific sample sizes ranged from 446 (practice-to-practice learning) to 455 (webinars, and CPC Weekly Roundup email).

^c The sample size shown here is the largest sample size for this set of questions. CPC-wide, question-specific sample sizes ranged from 412 (use of care compacts) to 437 (self-management support).

^d The sample size shown here is the largest sample size for this set of questions. CPC-wide, question-specific sample sizes ranged from 384 (Building and Sustaining Patient Relationships) to 407 (Leveraging Your Whole Team to Improve Chronic Disease Management).

n.a. = not applicable because the question or response option was not provided in the given survey round.

Table D.11a. CPC practices' experience with CPC in 2014, 2015, and 2016, overall and by region (AR, CO, NJ)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Overall experience with CPC												
D5 (2014 and 2015) Likelihood practice would recommend other practices participate in CPC												
Very	42%	54%	n.a.	33%	58%	n.a.	45%	51%	n.a.	46%	58%	n.a.
Somewhat	47%	38%	n.a.	54%	33%	n.a.	42%	43%	n.a.	38%	33%	n.a.
Not very	10%	6%	n.a.	11%	7%	n.a.	9%	4%	n.a.	15%	7%	n.a.
Not at all	2%	2%	n.a.	2%	2%	n.a.	4%	1%	n.a.	2%	2%	n.a.
N	460	446	n.a.	61	57	n.a.	74	72	n.a.	61	60	n.a.
D5 (2016) Likelihood practice would participate in CPC again												
Very	n.a.	n.a.	73%	n.a.	n.a.	72%	n.a.	n.a.	61%	n.a.	n.a.	87%
Somewhat	n.a.	n.a.	23%	n.a.	n.a.	23%	n.a.	n.a.	33%	n.a.	n.a.	13%
Not very	n.a.	n.a.	2%	n.a.	n.a.	4%	n.a.	n.a.	3%	n.a.	n.a.	0%
Not at all	n.a.	n.a.	2%	n.a.	n.a.	2%	n.a.	n.a.	3%	n.a.	n.a.	0%
N	n.a.	n.a.	445	n.a.	n.a.	57	n.a.	n.a.	69	n.a.	n.a.	53
D5a Main reasons practice would <u>not</u> participate in CPC again (multiple responses possible)												
Rather join an ACO	n.a.	n.a.	3%	n.a.	n.a.	4%	n.a.	n.a.	1%	n.a.	n.a.	6%
Reporting requirements are too burdensome	n.a.	n.a.	36%	n.a.	n.a.	40%	n.a.	n.a.	35%	n.a.	n.a.	32%
Milestone requirements are too burdensome	n.a.	n.a.	31%	n.a.	n.a.	28%	n.a.	n.a.	41%	n.a.	n.a.	30%
Insufficient financial incentives	n.a.	n.a.	36%	n.a.	n.a.	28%	n.a.	n.a.	51%	n.a.	n.a.	40%
Insufficient practice staffing	n.a.	n.a.	27%	n.a.	n.a.	32%	n.a.	n.a.	25%	n.a.	n.a.	25%
Difficult to have only some of practices in the medical group participate	n.a.	n.a.	34%	n.a.	n.a.	7%	n.a.	n.a.	30%	n.a.	n.a.	13%
Other	n.a.	n.a.	17%	n.a.	n.a.	14%	n.a.	n.a.	16%	n.a.	n.a.	13%
N	n.a.	n.a.	445	n.a.	n.a.	57	n.a.	n.a.	69	n.a.	n.a.	53
D5b Main reasons to participate in a program like CPC again (multiple responses possible)												
Work on Milestones helps practice make positive changes and improve care	n.a.	n.a.	75%	n.a.	n.a.	84%	n.a.	n.a.	71%	n.a.	n.a.	94%
Work on Milestones improves clinician and staff work satisfaction	n.a.	n.a.	33%	n.a.	n.a.	30%	n.a.	n.a.	32%	n.a.	n.a.	28%
Financial support was sufficient to support participation	n.a.	n.a.	54%	n.a.	n.a.	54%	n.a.	n.a.	54%	n.a.	n.a.	49%
Learning support is useful	n.a.	n.a.	39%	n.a.	n.a.	54%	n.a.	n.a.	46%	n.a.	n.a.	34%
Data/feedback reports are useful	n.a.	n.a.	49%	n.a.	n.a.	51%	n.a.	n.a.	54%	n.a.	n.a.	51%
Opportunity to contribute to field of primary care practice transformation	n.a.	n.a.	69%	n.a.	n.a.	61%	n.a.	n.a.	68%	n.a.	n.a.	70%
Other	n.a.	n.a.	4%	n.a.	n.a.	0%	n.a.	n.a.	10%	n.a.	n.a.	4%
N	n.a.	n.a.	445	n.a.	n.a.	57	n.a.	n.a.	69	n.a.	n.a.	53

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D6 Level of improvement in practice's quality of care as result of participation in CPC												
A lot	45%	55%	50%	44%	43%	53%	46%	57%	57%	59%	65%	58%
Somewhat	47%	43%	47%	46%	48%	42%	45%	42%	41%	34%	32%	42%
Not very much	6%	2%	3%	5%	7%	5%	8%	1%	3%	7%	3%	0%
Not at all	1%	0%	0%	5%	2%	0%	1%	0%	0%	0%	0%	0%
N	464	449	445	61	58	57	74	72	69	61	60	53
Importance of CPC functions in improving patient care												
D7a Providing round-the-clock access to care												
Very important	75%	84%	82%	50%	76%	77%	84%	82%	83%	80%	82%	75%
Somewhat important	21%	13%	16%	38%	19%	18%	12%	14%	16%	15%	13%	25%
Not very important	3%	2%	1%	10%	5%	4%	1%	1%	0%	3%	5%	0%
Not at all important	1%	1%	0%	2%	0%	2%	3%	3%	1%	2%	0%	0%
N	461	450	444	60	58	56	74	72	69	61	60	53
D7b Providing continuity of care												
Very important	92%	90%	86%	89%	84%	84%	92%	86%	77%	90%	90%	81%
Somewhat important	7%	9%	14%	11%	16%	15%	7%	11%	23%	7%	3%	19%
Not very important	1%	1%	0%	0%	0%	2%	1%	1%	0%	2%	5%	0%
Not at all important	0%	0%	0%	0%	0%	0%	0%	1%	0%	2%	2%	0%
N	462	449	441	61	58	55	74	72	69	61	60	53
D7c Planning for patients' chronic care needs												
Very important	91%	88%	87%	89%	81%	85%	93%	90%	83%	88%	81%	79%
Somewhat important	9%	11%	12%	11%	19%	15%	7%	7%	17%	10%	17%	21%
Not very important	0%	1%	0%	0%	0%	0%	0%	3%	0%	2%	2%	0%
Not at all important	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	456	447	441	61	58	55	73	72	69	59	59	53
D7d Planning for patients' preventive care needs												
Very important	87%	82%	82%	85%	76%	89%	86%	81%	80%	88%	83%	89%
Somewhat important	12%	17%	17%	15%	24%	11%	12%	18%	20%	7%	15%	11%
Not very important	1%	1%	0%	0%	0%	0%	1%	1%	0%	3%	2%	0%
Not at all important	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
N	460	449	444	61	58	56	73	72	69	60	60	53
D7e Stratifying patients by risk level												
Very important	56%	56%	58%	61%	52%	47%	46%	56%	43%	57%	62%	60%
Somewhat important	38%	39%	36%	31%	43%	47%	50%	39%	51%	34%	27%	34%
Not very important	5%	4%	5%	7%	5%	5%	4%	3%	6%	8%	12%	4%
Not at all important	0%	0%	1%	2%	0%	0%	0%	3%	0%	0%	0%	2%
N	461	450	441	61	58	55	74	72	69	61	60	53
D7f Providing risk-based care management services												
Very important	66%	69%	66%	56%	56%	62%	52%	78%	70%	66%	72%	62%
Somewhat important	32%	28%	32%	39%	40%	35%	48%	18%	29%	30%	23%	38%

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not very important	2%	2%	2%	3%	4%	4%	0%	3%	1%	5%	5%	0%
Not at all important	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%
N	459	448	443	61	57	55	73	72	69	61	60	53
D7g Providing behavioral health services integrated within primary care												
Very important	53%	55%	62%	36%	40%	49%	44%	63%	68%	48%	55%	49%
Somewhat important	39%	37%	32%	48%	45%	35%	52%	32%	28%	36%	34%	45%
Not very important	6%	6%	5%	13%	16%	11%	1%	3%	3%	13%	9%	6%
Not at all important	2%	1%	1%	3%	0%	5%	3%	3%	1%	3%	2%	0%
N	460	439	441	61	58	55	73	72	69	61	56	53
D7h Providing medication management to high-risk patients												
Very important	76%	75%	79%	80%	69%	82%	59%	56%	52%	79%	73%	77%
Somewhat important	21%	22%	19%	18%	28%	14%	36%	38%	43%	15%	18%	19%
Not very important	2%	3%	2%	2%	3%	2%	1%	3%	1%	5%	8%	4%
Not at all important	1%	1%	1%	0%	0%	2%	3%	4%	3%	2%	0%	0%
N	459	440	443	61	58	56	74	72	69	61	60	53
D7i Engaging patients and their families in their care												
Very important	66%	71%	72%	53%	68%	68%	49%	56%	48%	74%	73%	87%
Somewhat important	32%	26%	26%	47%	26%	30%	48%	37%	48%	21%	23%	11%
Not very important	1%	3%	1%	0%	5%	2%	0%	4%	1%	3%	3%	2%
Not at all important	1%	0%	1%	0%	0%	0%	3%	3%	3%	2%	0%	0%
N	459	447	443	59	57	56	73	71	69	61	60	53
D7j Collecting and using patient feedback to improve quality of care and patient experience over time												
Very important	54%	63%	63%	57%	60%	63%	37%	43%	38%	41%	67%	58%
Somewhat important	42%	31%	33%	40%	31%	32%	52%	47%	58%	56%	23%	40%
Not very important	4%	5%	4%	2%	9%	5%	8%	8%	3%	3%	10%	2%
Not at all important	1%	1%	0%	2%	0%	0%	3%	1%	1%	0%	0%	0%
N	457	449	444	60	58	56	73	72	69	61	60	53
D7k Making sure that care is coordinated across the medical neighborhood												
Very important	80%	80%	79%	79%	71%	73%	84%	68%	69%	75%	88%	74%
Somewhat important	18%	18%	20%	21%	28%	25%	14%	28%	28%	23%	10%	26%
Not very important	1%	1%	1%	0%	2%	2%	1%	1%	1%	2%	2%	0%
Not at all important	0%	0%	0%	0%	0%	0%	1%	3%	1%	0%	0%	0%
N	461	449	443	61	58	56	73	72	68	61	60	53
D7l Using data feedback on clinical measures to improve quality of care over time												
Very important	67%	68%	62%	62%	57%	57%	73%	69%	60%	68%	63%	62%
Somewhat important	30%	29%	34%	31%	33%	34%	26%	25%	37%	28%	36%	38%
Not very important	3%	3%	3%	7%	10%	9%	1%	4%	1%	3%	0%	0%

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not at all important	0%	1%	0%	0%	0%	0%	0%	1%	1%	0%	2%	0%
N	459	449	443	61	58	56	74	72	68	60	59	53
D7m Using shared decision-making tools												
Very important	42%	38%	40%	26%	38%	34%	38%	25%	28%	30%	38%	42%
Somewhat important	46%	46%	43%	44%	41%	36%	54%	46%	44%	56%	47%	43%
Not very important	11%	13%	13%	28%	17%	20%	7%	26%	25%	11%	10%	13%
Not at all important	1%	2%	3%	2%	3%	11%	1%	3%	3%	3%	5%	2%
N	460	449	440	61	58	56	74	72	68	61	60	53
Effect of no CPC funding on level of resources devoted to each of the following areas												
If practice no longer received CPC funding, the effect it would have on the level of resources the practice would be able to devote to each of the following areas												
D7a_a Providing round-the-clock access to care												
Eliminate resources	n.a.	n.a.	3%	n.a.	n.a.	15%	n.a.	n.a.	0%	n.a.	n.a.	6%
Reduce resources	n.a.	n.a.	7%	n.a.	n.a.	18%	n.a.	n.a.	7%	n.a.	n.a.	6%
No change	n.a.	n.a.	87%	n.a.	n.a.	64%	n.a.	n.a.	91%	n.a.	n.a.	87%
Not applicable/no resources currently devoted	n.a.	n.a.	3%	n.a.	n.a.	4%	n.a.	n.a.	1%	n.a.	n.a.	2%
N	n.a.	n.a.	436	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	52
D7a_b Providing continuity of care												
Eliminate resources	n.a.	n.a.	3%	n.a.	n.a.	9%	n.a.	n.a.	0%	n.a.	n.a.	2%
Reduce resources	n.a.	n.a.	26%	n.a.	n.a.	33%	n.a.	n.a.	23%	n.a.	n.a.	30%
No change	n.a.	n.a.	70%	n.a.	n.a.	55%	n.a.	n.a.	74%	n.a.	n.a.	68%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	4%	n.a.	n.a.	3%	n.a.	n.a.	0%
N	n.a.	n.a.	437	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53
D7a_c Planning for patients' chronic care needs												
Eliminate resources	n.a.	n.a.	5%	n.a.	n.a.	5%	n.a.	n.a.	1%	n.a.	n.a.	4%
Reduce resources	n.a.	n.a.	58%	n.a.	n.a.	60%	n.a.	n.a.	56%	n.a.	n.a.	64%
No change	n.a.	n.a.	36%	n.a.	n.a.	35%	n.a.	n.a.	41%	n.a.	n.a.	32%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	1%	n.a.	n.a.	0%
N	n.a.	n.a.	436	n.a.	n.a.	55	n.a.	n.a.	68	n.a.	n.a.	53
D7a_d Planning for patients' preventive care needs												
Eliminate resources	n.a.	n.a.	5%	n.a.	n.a.	9%	n.a.	n.a.	3%	n.a.	n.a.	0%
Reduce resources	n.a.	n.a.	47%	n.a.	n.a.	55%	n.a.	n.a.	39%	n.a.	n.a.	53%
No change	n.a.	n.a.	47%	n.a.	n.a.	36%	n.a.	n.a.	57%	n.a.	n.a.	45%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	1%	n.a.	n.a.	2%
N	n.a.	n.a.	438	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53
D7a_e Stratifying patients by risk level												
Eliminate resources	n.a.	n.a.	15%	n.a.	n.a.	15%	n.a.	n.a.	16%	n.a.	n.a.	8%
Reduce resources	n.a.	n.a.	48%	n.a.	n.a.	42%	n.a.	n.a.	49%	n.a.	n.a.	40%
No change	n.a.	n.a.	35%	n.a.	n.a.	42%	n.a.	n.a.	35%	n.a.	n.a.	53%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	439	n.a.	n.a.	55	n.a.	n.a.	68	n.a.	n.a.	53

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D7a_f Providing risk-based care management services												
Eliminate resources	n.a.	n.a.	24%	n.a.	n.a.	20%	n.a.	n.a.	19%	n.a.	n.a.	11%
Reduce resources	n.a.	n.a.	57%	n.a.	n.a.	64%	n.a.	n.a.	58%	n.a.	n.a.	68%
No change	n.a.	n.a.	19%	n.a.	n.a.	16%	n.a.	n.a.	23%	n.a.	n.a.	21%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	441	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53
D7a_g Providing behavioral health services integrated within primary care												
Eliminate resources	n.a.	n.a.	21%	n.a.	n.a.	24%	n.a.	n.a.	13%	n.a.	n.a.	13%
Reduce resources	n.a.	n.a.	37%	n.a.	n.a.	35%	n.a.	n.a.	52%	n.a.	n.a.	40%
No change	n.a.	n.a.	24%	n.a.	n.a.	18%	n.a.	n.a.	28%	n.a.	n.a.	23%
Not applicable/no resources currently devoted	n.a.	n.a.	18%	n.a.	n.a.	24%	n.a.	n.a.	7%	n.a.	n.a.	25%
N	n.a.	n.a.	438	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53
D7a_h Providing medication management to high-risk patients												
Eliminate resources	n.a.	n.a.	8%	n.a.	n.a.	16%	n.a.	n.a.	6%	n.a.	n.a.	6%
Reduce resources	n.a.	n.a.	44%	n.a.	n.a.	31%	n.a.	n.a.	37%	n.a.	n.a.	49%
No change	n.a.	n.a.	40%	n.a.	n.a.	45%	n.a.	n.a.	47%	n.a.	n.a.	40%
Not applicable/no resources currently devoted	n.a.	n.a.	8%	n.a.	n.a.	7%	n.a.	n.a.	10%	n.a.	n.a.	6%
N	n.a.	n.a.	434	n.a.	n.a.	55	n.a.	n.a.	68	n.a.	n.a.	53
D7a_i Engaging patients and their families in their care												
Eliminate resources	n.a.	n.a.	7%	n.a.	n.a.	11%	n.a.	n.a.	6%	n.a.	n.a.	11%
Reduce resources	n.a.	n.a.	47%	n.a.	n.a.	45%	n.a.	n.a.	32%	n.a.	n.a.	53%
No change	n.a.	n.a.	45%	n.a.	n.a.	44%	n.a.	n.a.	62%	n.a.	n.a.	36%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	438	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53
D7a_j Collecting and using patient feedback to improve quality of care and patient experience over time												
Eliminate resources	n.a.	n.a.	18%	n.a.	n.a.	22%	n.a.	n.a.	16%	n.a.	n.a.	23%
Reduce resources	n.a.	n.a.	42%	n.a.	n.a.	62%	n.a.	n.a.	26%	n.a.	n.a.	42%
No change	n.a.	n.a.	40%	n.a.	n.a.	16%	n.a.	n.a.	58%	n.a.	n.a.	35%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	436	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	52
D7a_k Making sure that care is coordinated across the medical neighborhood												
Eliminate resources	n.a.	n.a.	10%	n.a.	n.a.	15%	n.a.	n.a.	4%	n.a.	n.a.	8%
Reduce resources	n.a.	n.a.	45%	n.a.	n.a.	47%	n.a.	n.a.	35%	n.a.	n.a.	51%
No change	n.a.	n.a.	44%	n.a.	n.a.	38%	n.a.	n.a.	59%	n.a.	n.a.	42%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	0%	n.a.	n.a.	1%	n.a.	n.a.	0%
N	n.a.	n.a.	435	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D7a_l Using data feedback on clinical measures to improve quality of care over time												
Eliminate resources	n.a.	n.a.	11%	n.a.	n.a.	15%	n.a.	n.a.	12%	n.a.	n.a.	13%
Reduce resources	n.a.	n.a.	44%	n.a.	n.a.	58%	n.a.	n.a.	22%	n.a.	n.a.	66%
No change	n.a.	n.a.	45%	n.a.	n.a.	25%	n.a.	n.a.	67%	n.a.	n.a.	21%
Not applicable/no resources currently devoted	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	438	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	53
D7a_m Using shared decision-making tools												
Eliminate resources	n.a.	n.a.	24%	n.a.	n.a.	29%	n.a.	n.a.	17%	n.a.	n.a.	29%
Reduce resources	n.a.	n.a.	39%	n.a.	n.a.	51%	n.a.	n.a.	23%	n.a.	n.a.	35%
No change	n.a.	n.a.	36%	n.a.	n.a.	18%	n.a.	n.a.	59%	n.a.	n.a.	37%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	0%
N	n.a.	n.a.	436	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	52
Feedback reports and data files												
D2 Staff who review feedback reports and/or data files												
Staff in practice site	37%	39%	37%	50%	53%	63%	51%	51%	46%	79%	72%	70%
Staff in larger healthcare system or medical group	19%	15%	15%	8%	5%	5%	14%	6%	0%	0%	3%	0%
A combination	42%	46%	47%	42%	41%	32%	34%	43%	52%	21%	23%	30%
Neither	1%	0%	0%	0%	0%	0%	1%	0%	1%	0%	2%	0%
N	455	453	444	60	58	57	71	72	69	61	60	53
Among practices in a healthcare system ^a , staff who review feedback reports and/or data files												
Staff in practice site	10%	13%	13%	15%	20%	42%	14%	19%	19%	80%	30%	0%
Staff in larger healthcare system or medical group	31%	26%	27%	19%	8%	13%	5%	19%	0%	0%	10%	0%
A combination	57%	61%	59%	67%	72%	46%	81%	62%	81%	20%	60%	100%
Neither	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	214	203	203	27	25	24	21	21	21	10	10	8
Among practices not in a healthcare system ^a , staff who review feedback reports and/or data files												
Staff in practice site	62%	60%	57%	79%	79%	79%	66%	65%	58%	78%	80%	82%
Staff in larger healthcare system or medical group	9%	6%	5%	0%	3%	0%	18%	0%	0%	0%	2%	0%
A combination	29%	33%	37%	21%	18%	21%	14%	35%	40%	22%	16%	18%
Neither	1%	0%	0%	0%	0%	0%	2%	0%	2%	0%	2%	0%
N	241	249	241	33	33	33	50	51	48	51	50	45

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Experience with feedback reports and data files from Medicare FFS												
D1a_1 Frequency of review of feedback reports from Medicare FFS												
Never	3%	1%	1%	0%	0%	0%	0%	1%	1%	10%	0%	0%
Rarely	5%	5%	3%	7%	5%	4%	5%	8%	1%	3%	2%	6%
Sometimes	14%	16%	13%	15%	20%	9%	11%	7%	14%	10%	15%	8%
Most of the time	18%	23%	28%	25%	25%	31%	22%	14%	17%	28%	22%	29%
Always	55%	55%	53%	49%	50%	55%	58%	68%	62%	48%	60%	58%
Did not receive	5%	1%	2%	5%	0%	2%	4%	1%	3%	0%	2%	0%
N	455	444	439	61	56	55	73	72	69	60	60	52
D1a_2 Of those that reported reviewing the reports, usefulness of feedback reports from Medicare FFS												
Very	21%	34%	35%	14%	35%	45%	23%	41%	48%	40%	39%	38%
Somewhat	69%	55%	58%	73%	46%	51%	65%	47%	42%	50%	56%	48%
Not very	10%	10%	6%	12%	19%	4%	12%	13%	9%	8%	6%	10%
Not at all	1%	0%	1%	2%	0%	0%	0%	0%	0%	2%	0%	4%
N	381	406	399	51	54	51	65	64	64	48	54	50
D1c_1 Frequency of review of patient-level data files from Medicare FFS												
Never	6%	6%	6%	8%	2%	6%	1%	4%	7%	15%	2%	4%
Rarely	18%	12%	8%	15%	13%	6%	15%	6%	10%	5%	17%	12%
Sometimes	20%	26%	21%	15%	21%	24%	29%	25%	29%	15%	21%	18%
Most of the time	16%	21%	23%	10%	25%	22%	29%	28%	16%	25%	19%	16%
Always	31%	32%	35%	25%	34%	35%	18%	37%	32%	33%	34%	40%
Did not receive	10%	4%	6%	28%	5%	7%	8%	0%	4%	7%	7%	10%
N	451	438	434	61	56	54	73	71	68	60	58	50
D1c_2 Of those that reported reviewing the data files, usefulness of patient-level data files from Medicare FFS												
Very	14%	28%	30%	17%	40%	43%	8%	33%	17%	27%	26%	34%
Somewhat	65%	54%	56%	57%	45%	50%	52%	31%	51%	59%	50%	46%
Not very	18%	17%	13%	14%	15%	7%	36%	33%	31%	12%	24%	15%
Not at all	3%	1%	1%	11%	0%	0%	3%	3%	2%	2%	0%	5%
N	346	360	353	35	47	42	61	58	59	41	50	41
Experience with feedback reports and data files from other participating payers												
D1b_1 Frequency of review of feedback reports from other participating payers in CPC												
Never	5%	5%	5%	8%	2%	4%	1%	1%	3%	13%	7%	2%
Rarely	8%	7%	7%	8%	12%	13%	14%	4%	1%	3%	3%	8%
Sometimes	25%	17%	21%	18%	23%	16%	31%	24%	23%	18%	12%	12%
Most of the time	22%	32%	29%	10%	19%	31%	27%	15%	39%	17%	34%	29%
Always	26%	33%	32%	21%	32%	29%	22%	49%	28%	40%	37%	37%

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Did not receive	13%	6%	6%	34%	12%	7%	5%	7%	6%	8%	7%	12%
N	456	445	439	61	57	55	74	72	69	60	59	51
D1b_2 Of those that reported reviewing the reports, usefulness of feedback reports from other participating payers in CPC												
Very	12%	25%	24%	3%	25%	31%	12%	22%	16%	33%	27%	32%
Somewhat	62%	62%	63%	48%	48%	50%	60%	58%	75%	56%	67%	57%
Not very	25%	11%	11%	41%	25%	19%	25%	20%	8%	9%	6%	7%
Not at all	2%	1%	1%	7%	2%	0%	3%	0%	0%	2%	0%	5%
N	338	367	364	29	44	42	65	60	61	43	48	44
D1d_1 Frequency of review of patient-level data files from other participating payers in CPC												
Never	6%	6%	9%	17%	2%	6%	4%	1%	10%	7%	10%	6%
Rarely	12%	13%	15%	15%	19%	22%	19%	15%	7%	7%	14%	12%
Sometimes	29%	31%	24%	15%	25%	20%	40%	35%	31%	15%	19%	18%
Most of the time	15%	18%	16%	7%	19%	19%	11%	21%	18%	18%	15%	16%
Always	23%	23%	25%	12%	16%	15%	18%	19%	29%	43%	36%	28%
Did not receive	14%	8%	11%	35%	19%	19%	7%	8%	4%	10%	7%	20%
N	450	439	434	60	57	54	72	72	68	60	59	50
D1d_2 Of those that reported reviewing the data files, usefulness of patient-level data files from other participating payers in CPC												
Very	14%	21%	21%	8%	15%	22%	6%	17%	9%	40%	34%	37%
Somewhat	63%	63%	63%	65%	54%	56%	53%	59%	77%	53%	47%	42%
Not very	20%	15%	14%	19%	31%	19%	37%	24%	14%	4%	19%	11%
Not at all	3%	1%	2%	8%	0%	3%	3%	0%	0%	2%	0%	11%
N	326	352	328	26	39	36	62	58	56	45	47	38
Plan-Do-Study-Act Cycles												
D2a Practice site's awareness of Plan-Do-Study-Act (PDSA) cycles												
Never heard of PDSA cycles	n.a.	n.a.	8%	n.a.	n.a.	20%	n.a.	n.a.	3%	n.a.	n.a.	14%
Has heard of PDSA cycles but never used them	n.a.	n.a.	16%	n.a.	n.a.	27%	n.a.	n.a.	9%	n.a.	n.a.	12%
Has heard of PDSA cycles and has used them	n.a.	n.a.	76%	n.a.	n.a.	54%	n.a.	n.a.	88%	n.a.	n.a.	75%
N	n.a.	n.a.	442	n.a.	n.a.	56	n.a.	n.a.	69	n.a.	n.a.	51
D2b Of practice sites that have heard of and used PDSA cycles, practice first started using PDSA cycles												
In the past year	n.a.	n.a.	14%	n.a.	n.a.	10%	n.a.	n.a.	23%	n.a.	n.a.	15%
Two or three years ago	n.a.	n.a.	36%	n.a.	n.a.	37%	n.a.	n.a.	21%	n.a.	n.a.	48%
More than three years ago	n.a.	n.a.	51%	n.a.	n.a.	53%	n.a.	n.a.	56%	n.a.	n.a.	38%
N	n.a.	n.a.	337	n.a.	n.a.	30	n.a.	n.a.	61	n.a.	n.a.	40

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D2c Of practice sites that started using PDSA cycles two or more years ago, practice used PDSA cycles in the past year												
Yes	n.a.	n.a.	85%	n.a.	n.a.	81%	n.a.	n.a.	94%	n.a.	n.a.	89%
No	n.a.	n.a.	15%	n.a.	n.a.	19%	n.a.	n.a.	6%	n.a.	n.a.	11%
N	n.a.	n.a.	293	n.a.	n.a.	27	n.a.	n.a.	47	n.a.	n.a.	35
Proportion of patients attributed by CPC payers												
D3 Proportion of practices total patient panel that is included in or attributed to CPC												
Less than 20 percent	13%	12%	9%	5%	5%	9%	17%	6%	3%	11%	8%	12%
20 to 39 percent	22%	18%	22%	25%	21%	18%	26%	23%	32%	39%	27%	23%
40 to 59 percent	25%	27%	28%	18%	21%	23%	24%	34%	26%	26%	33%	23%
60 to 79 percent	26%	26%	25%	48%	38%	30%	21%	21%	19%	15%	15%	25%
80 percent or more	14%	18%	16%	5%	16%	20%	13%	17%	20%	8%	17%	17%
N	456	441	438	61	58	56	72	71	69	61	60	52
Shared savings from Medicare FFS and non-Medicare payers												
D4a Likelihood practice will receive CPC shared savings or bonus payments from any CPC participating payer in 2015												
Very	n.a.	32%	n.a.	n.a.	23%	n.a.	n.a.	28%	n.a.	n.a.	23%	n.a.
Somewhat	n.a.	44%	n.a.	n.a.	54%	n.a.	n.a.	40%	n.a.	n.a.	45%	n.a.
Not very	n.a.	18%	n.a.	n.a.	19%	n.a.	n.a.	19%	n.a.	n.a.	23%	n.a.
Not at all	n.a.	5%	n.a.	n.a.	4%	n.a.	n.a.	13%	n.a.	n.a.	8%	n.a.
N	n.a.	448	n.a.	n.a.	57	n.a.	n.a.	72	n.a.	n.a.	60	n.a.
Practice's experience with CPC shared savings from Medicare												
D4a1_a Practice understood how Medicare shared savings in 2015 were calculated												
Strongly agree	n.a.	n.a.	5%	n.a.	n.a.	5%	n.a.	n.a.	9%	n.a.	n.a.	4%
Agree	n.a.	n.a.	61%	n.a.	n.a.	46%	n.a.	n.a.	46%	n.a.	n.a.	87%
Disagree	n.a.	n.a.	28%	n.a.	n.a.	37%	n.a.	n.a.	43%	n.a.	n.a.	6%
Strongly disagree	n.a.	n.a.	6%	n.a.	n.a.	12%	n.a.	n.a.	1%	n.a.	n.a.	4%
N	n.a.	n.a.	439	n.a.	n.a.	57	n.a.	n.a.	69	n.a.	n.a.	52
D4a1_b Practice felt the methodology used to calculate Medicare shared savings in 2015 was fair												
Strongly agree	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	6%	n.a.	n.a.	2%
Agree	n.a.	n.a.	37%	n.a.	n.a.	32%	n.a.	n.a.	26%	n.a.	n.a.	40%
Disagree	n.a.	n.a.	49%	n.a.	n.a.	49%	n.a.	n.a.	50%	n.a.	n.a.	46%
Strongly disagree	n.a.	n.a.	11%	n.a.	n.a.	18%	n.a.	n.a.	18%	n.a.	n.a.	12%
N	n.a.	n.a.	437	n.a.	n.a.	57	n.a.	n.a.	68	n.a.	n.a.	52

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D4a1_c Practice knew what changes were required to receive Medicare shared savings in 2016												
Strongly agree	n.a.	n.a.	5%	n.a.	n.a.	4%	n.a.	n.a.	7%	n.a.	n.a.	10%
Agree	n.a.	n.a.	54%	n.a.	n.a.	42%	n.a.	n.a.	54%	n.a.	n.a.	73%
Disagree	n.a.	n.a.	36%	n.a.	n.a.	46%	n.a.	n.a.	33%	n.a.	n.a.	12%
Strongly disagree	n.a.	n.a.	5%	n.a.	n.a.	9%	n.a.	n.a.	6%	n.a.	n.a.	6%
N	n.a.	n.a.	440	n.a.	n.a.	57	n.a.	n.a.	67	n.a.	n.a.	52
D4a2 Likelihood practice will receive CPC shared savings from Medicare in 2016												
Very	n.a.	n.a.	13%	n.a.	n.a.	19%	n.a.	n.a.	4%	n.a.	n.a.	9%
Somewhat	n.a.	n.a.	48%	n.a.	n.a.	42%	n.a.	n.a.	39%	n.a.	n.a.	49%
Not very	n.a.	n.a.	32%	n.a.	n.a.	37%	n.a.	n.a.	38%	n.a.	n.a.	28%
Not at all	n.a.	n.a.	7%	n.a.	n.a.	2%	n.a.	n.a.	19%	n.a.	n.a.	13%
N	n.a.	n.a.	445	n.a.	n.a.	57	n.a.	n.a.	69	n.a.	n.a.	53
Practice's experience with CPC shared savings from participating non-Medicare payers												
D4a3_a Practice understood how shared savings were calculated in 2015												
Strongly agree	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	3%	n.a.	n.a.	8%
Agree	n.a.	n.a.	48%	n.a.	n.a.	25%	n.a.	n.a.	49%	n.a.	n.a.	67%
Disagree	n.a.	n.a.	42%	n.a.	n.a.	58%	n.a.	n.a.	38%	n.a.	n.a.	25%
Strongly disagree	n.a.	n.a.	7%	n.a.	n.a.	15%	n.a.	n.a.	10%	n.a.	n.a.	0%
N	n.a.	n.a.	435	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	51
D4a3_b Practice felt the methodology used to calculate shared savings in 2015 was fair												
Strongly agree	n.a.	n.a.	2%	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	6%
Agree	n.a.	n.a.	43%	n.a.	n.a.	24%	n.a.	n.a.	43%	n.a.	n.a.	49%
Disagree	n.a.	n.a.	46%	n.a.	n.a.	60%	n.a.	n.a.	40%	n.a.	n.a.	43%
Strongly disagree	n.a.	n.a.	9%	n.a.	n.a.	15%	n.a.	n.a.	18%	n.a.	n.a.	2%
N	n.a.	n.a.	431	n.a.	n.a.	55	n.a.	n.a.	68	n.a.	n.a.	51
D4a3_c Practice knew what changes were required to receive shared savings in 2016												
Strongly agree	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	1%	n.a.	n.a.	10%
Agree	n.a.	n.a.	54%	n.a.	n.a.	33%	n.a.	n.a.	57%	n.a.	n.a.	66%
Disagree	n.a.	n.a.	37%	n.a.	n.a.	51%	n.a.	n.a.	35%	n.a.	n.a.	24%
Strongly disagree	n.a.	n.a.	7%	n.a.	n.a.	15%	n.a.	n.a.	7%	n.a.	n.a.	0%
N	n.a.	n.a.	433	n.a.	n.a.	55	n.a.	n.a.	69	n.a.	n.a.	50
D4a4 Likelihood practice will receive CPC shared savings from any participating non-Medicare payer in 2016												
Very	n.a.	n.a.	14%	n.a.	n.a.	11%	n.a.	n.a.	1%	n.a.	n.a.	24%
Somewhat	n.a.	n.a.	52%	n.a.	n.a.	47%	n.a.	n.a.	60%	n.a.	n.a.	41%
Not very	n.a.	n.a.	26%	n.a.	n.a.	35%	n.a.	n.a.	21%	n.a.	n.a.	24%

Table D.11a (continued)

Question	CPC-wide			AR			CO			NJ		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not at all	n.a.	n.a.	8%	n.a.	n.a.	7%	n.a.	n.a.	18%	n.a.	n.a.	12%
N	n.a.	n.a.	437	n.a.	n.a.	57	n.a.	n.a.	67	n.a.	n.a.	51
Adequacy of practice payments from Medicare FFS and other payers												
D4 Medicare FFS												
More than adequate	11%	4%	6%	25%	7%	7%	9%	6%	16%	3%	0%	0%
Adequate	70%	72%	71%	53%	71%	77%	74%	61%	49%	52%	73%	74%
Less than adequate	19%	24%	24%	22%	22%	16%	17%	33%	35%	45%	27%	26%
N	442	439	434	60	58	57	69	69	68	60	59	53
Average adequacy among all payers in the region												
More than adequate	n.a.	n.a.	n.a.	0%	2%	2%	0%	0%	0%	1%	0%	0%
Adequate	n.a.	n.a.	n.a.	23%	38%	44%	39%	27%	29%	23%	23%	20%
Less than adequate	n.a.	n.a.	n.a.	68%	53%	44%	32%	45%	43%	40%	36%	40%
Not working with payer	n.a.	n.a.	n.a.	9%	8%	11%	29%	28%	27%	36%	40%	40%
N	n.a.	n.a.	n.a.	60	58	57	72	71	69	61	60	53

Sources: CPC practice surveys administered April through July 2014, April through August 2015, and April through August 2016.

Note: Question numbers pertain to the 2016 CPC practice survey.

^a We defined whether the practice is in a healthcare system or not using responses to two questions on the 2016 CPC practice survey. These questions asked practices to describe the medical organization that employs the clinicians at the practice site and who owns the practice. We considered practices with these responses to be in a healthcare system: group or staff model HMO; network of clinician practices owned by a hospital, hospital system, or medical school; public or private hospital, health system, or foundation owned by a hospital, or medical school or university.

n.a. = not applicable because the question was not asked in the given survey round; FFS = fee-for-service.

Table D.11b. CPC practices' experience with CPC in 2014, 2015, and 2016, by region (NY, OH/KY, OK, OR)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Overall experience with CPC												
D5 (2014 and 2015) Likelihood practice would recommend other practices participate in CPC												
Very	33%	32%	n.a.	53%	72%	n.a.	42%	46%	n.a.	37%	60%	n.a.
Somewhat	48%	55%	n.a.	41%	26%	n.a.	51%	44%	n.a.	57%	28%	n.a.
Not very	19%	11%	n.a.	5%	1%	n.a.	7%	3%	n.a.	3%	12%	n.a.
Not at all	0%	2%	n.a.	0%	1%	n.a.	0%	7%	n.a.	3%	0%	n.a.
N	67	65	n.a.	73	74	n.a.	59	61	n.a.	65	57	n.a.
D5 (2016) Likelihood practice would participate in CPC again												
Very	n.a.	n.a.	49%	n.a.	n.a.	84%	n.a.	n.a.	75%	n.a.	n.a.	83%
Somewhat	n.a.	n.a.	49%	n.a.	n.a.	13%	n.a.	n.a.	15%	n.a.	n.a.	14%
Not very	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	8%	n.a.	n.a.	3%
Not at all	n.a.	n.a.	2%	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	0%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	61	n.a.	n.a.	65
D5a Main reasons practice would <u>not</u> participate in CPC again (multiple responses possible)												
Rather join an ACO	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	11%
Reporting requirements are too burdensome	n.a.	n.a.	31%	n.a.	n.a.	39%	n.a.	n.a.	34%	n.a.	n.a.	38%
Milestone requirements are too burdensome	n.a.	n.a.	25%	n.a.	n.a.	44%	n.a.	n.a.	23%	n.a.	n.a.	23%
Insufficient financial incentives	n.a.	n.a.	29%	n.a.	n.a.	17%	n.a.	n.a.	38%	n.a.	n.a.	48%
Insufficient practice staffing	n.a.	n.a.	28%	n.a.	n.a.	15%	n.a.	n.a.	33%	n.a.	n.a.	32%
Difficult to have only some of practices in the medical group participate	n.a.	n.a.	37%	n.a.	n.a.	67%	n.a.	n.a.	38%	n.a.	n.a.	35%
Other	n.a.	n.a.	23%	n.a.	n.a.	25%	n.a.	n.a.	8%	n.a.	n.a.	15%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	61	n.a.	n.a.	65
D5b Main reasons to participate in a program like CPC again (multiple responses possible)												
Work on Milestones helps practice make positive changes and improve care	n.a.	n.a.	65%	n.a.	n.a.	65%	n.a.	n.a.	62%	n.a.	n.a.	88%
Work on Milestones improves clinician and staff work satisfaction	n.a.	n.a.	23%	n.a.	n.a.	29%	n.a.	n.a.	31%	n.a.	n.a.	55%
Financial support was sufficient to support participation	n.a.	n.a.	35%	n.a.	n.a.	69%	n.a.	n.a.	57%	n.a.	n.a.	57%
Learning support is useful	n.a.	n.a.	22%	n.a.	n.a.	43%	n.a.	n.a.	23%	n.a.	n.a.	52%
Data/feedback reports are useful	n.a.	n.a.	40%	n.a.	n.a.	44%	n.a.	n.a.	48%	n.a.	n.a.	54%

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Opportunity to contribute to field of primary care practice transformation	n.a.	n.a.	74%	n.a.	n.a.	72%	n.a.	n.a.	51%	n.a.	n.a.	85%
Other	n.a.	n.a.	3%	n.a.	n.a.	1%	n.a.	n.a.	5%	n.a.	n.a.	3%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	61	n.a.	n.a.	65
D6 Level of improvement in practice's quality of care as result of participation in CPC												
A lot	28%	26%	38%	57%	65%	44%	48%	64%	66%	35%	65%	37%
Somewhat	60%	73%	58%	41%	35%	56%	43%	34%	31%	59%	33%	58%
Not very much	10%	2%	3%	1%	0%	0%	8%	0%	3%	6%	2%	5%
Not at all	1%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%
N	67	66	65	75	75	75	60	61	61	66	57	65
Importance of CPC functions in improving patient care												
D7a Providing round-the-clock access to care												
Very important	76%	78%	89%	70%	88%	93%	80%	93%	64%	83%	91%	86%
Somewhat important	24%	22%	9%	29%	11%	5%	18%	7%	36%	15%	5%	11%
Not very important	0%	0%	2%	1%	0%	1%	2%	0%	0%	2%	2%	3%
Not at all important	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	2%	0%
N	67	67	65	73	75	75	60	61	61	66	57	65
D7b Providing continuity of care												
Very important	91%	86%	88%	99%	92%	93%	92%	100%	89%	92%	88%	89%
Somewhat important	9%	14%	13%	1%	8%	7%	7%	0%	11%	8%	9%	9%
Not very important	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	4%	2%
Not at all important	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	67	66	64	73	75	74	60	61	61	66	57	65
D7c Planning for patients' chronic care needs												
Very important	93%	83%	84%	97%	96%	93%	88%	93%	93%	88%	91%	91%
Somewhat important	7%	17%	16%	3%	4%	7%	12%	7%	7%	12%	7%	8%
Not very important	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%
Not at all important	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	67	66	63	72	74	75	59	61	61	65	57	65
D7d Planning for patients' preventive care needs												
Very important	90%	70%	78%	85%	89%	87%	88%	92%	69%	86%	86%	86%
Somewhat important	10%	30%	22%	14%	11%	12%	12%	8%	31%	14%	11%	14%
Not very important	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	4%	0%
Not at all important	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
N	67	67	65	73	74	75	60	61	61	66	57	65
D7e Stratifying patients by risk level												
Very important	52%	52%	59%	49%	49%	60%	83%	84%	84%	48%	40%	55%

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Somewhat important	36%	45%	32%	49%	49%	33%	15%	13%	16%	47%	54%	40%
Not very important	11%	3%	8%	1%	1%	5%	2%	3%	0%	5%	5%	3%
Not at all important	2%	0%	2%	0%	0%	1%	0%	0%	0%	0%	0%	2%
N	66	67	63	73	75	75	60	61	61	66	57	65
D7f Providing risk-based care management services												
Very important	69%	62%	71%	81%	67%	69%	74%	82%	57%	65%	65%	69%
Somewhat important	28%	38%	28%	19%	32%	28%	24%	16%	41%	32%	32%	29%
Not very important	1%	0%	2%	0%	1%	1%	2%	2%	2%	3%	4%	2%
Not at all important	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
N	67	66	65	73	75	75	58	61	61	66	57	65
D7g Providing behavioral health services integrated within primary care												
Very important	67%	38%	39%	42%	58%	82%	55%	56%	48%	77%	77%	89%
Somewhat important	28%	58%	55%	53%	36%	14%	33%	36%	51%	20%	19%	8%
Not very important	3%	5%	5%	4%	4%	4%	10%	7%	2%	2%	4%	3%
Not at all important	1%	0%	2%	0%	1%	0%	2%	2%	0%	2%	0%	0%
N	67	66	64	73	69	74	60	61	61	65	57	65
D7h Providing medication management to high-risk patients												
Very important	73%	70%	82%	85%	89%	91%	76%	90%	80%	83%	77%	86%
Somewhat important	27%	28%	15%	15%	11%	9%	22%	8%	20%	14%	18%	8%
Not very important	0%	2%	2%	0%	0%	0%	2%	2%	0%	2%	4%	6%
Not at all important	0%	0%	2%	0%	0%	0%	0%	0%	0%	2%	2%	0%
N	66	64	65	73	70	74	59	60	61	65	56	65
D7i Engaging patients and their families in their care												
Very important	69%	58%	63%	81%	85%	95%	62%	87%	77%	73%	70%	70%
Somewhat important	30%	42%	35%	18%	13%	5%	37%	12%	21%	24%	26%	27%
Not very important	0%	0%	2%	1%	1%	0%	0%	2%	0%	3%	4%	3%
Not at all important	1%	0%	0%	0%	0%	0%	2%	0%	2%	0%	0%	0%
N	67	67	65	73	75	75	60	60	61	66	57	64
D7j Collecting and using patient feedback to improve quality of care and patient experience over time												
Very important	51%	47%	60%	59%	73%	71%	65%	77%	72%	68%	77%	77%
Somewhat important	46%	52%	35%	38%	23%	25%	32%	20%	25%	28%	19%	18%
Not very important	3%	0%	5%	1%	3%	4%	2%	3%	2%	5%	4%	5%
Not at all important	0%	2%	0%	1%	1%	0%	2%	0%	2%	0%	0%	0%
N	65	66	65	73	75	75	60	61	61	65	57	65

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D7k Making sure that care is coordinated across the medical neighborhood												
Very important	78%	78%	78%	93%	88%	88%	72%	95%	89%	80%	72%	78%
Somewhat important	21%	22%	22%	5%	9%	12%	27%	5%	10%	20%	26%	20%
Not very important	1%	0%	0%	1%	3%	0%	0%	0%	0%	0%	2%	2%
Not at all important	0%	0%	0%	0%	0%	0%	2%	0%	2%	0%	0%	0%
N	67	67	65	73	74	75	60	61	61	66	57	65
D7l Using data feedback on clinical measures to improve quality of care over time												
Very important	65%	45%	54%	64%	84%	76%	61%	79%	54%	73%	79%	68%
Somewhat important	30%	54%	42%	34%	13%	21%	37%	20%	43%	24%	21%	29%
Not very important	5%	1%	3%	1%	1%	3%	0%	2%	3%	2%	0%	3%
Not at all important	0%	0%	2%	0%	1%	0%	2%	0%	0%	2%	0%	0%
N	66	67	65	73	75	75	59	61	61	66	57	65
D7m Using shared decision-making tools												
Very important	53%	27%	32%	47%	52%	64%	61%	48%	39%	41%	39%	38%
Somewhat important	35%	64%	57%	48%	41%	26%	34%	47%	54%	48%	37%	45%
Not very important	11%	9%	8%	5%	7%	8%	5%	3%	5%	9%	21%	14%
Not at all important	2%	0%	3%	0%	0%	1%	0%	2%	2%	2%	4%	3%
N	66	67	65	73	75	73	59	60	61	66	57	64
Effect of no CPC funding on level of resources devoted to each of the following areas												
If practice no longer received CPC funding, the effect it would have on the level of resources the practice would be able to devote to each of the following areas												
D7a_a Providing round-the-clock access to care												
Eliminate resources	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	0%
Reduce resources	n.a.	n.a.	3%	n.a.	n.a.	5%	n.a.	n.a.	5%	n.a.	n.a.	5%
No change	n.a.	n.a.	94%	n.a.	n.a.	92%	n.a.	n.a.	90%	n.a.	n.a.	90%
Not applicable/no resources currently devoted	n.a.	n.a.	2%	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	5%
N	n.a.	n.a.	65	n.a.	n.a.	74	n.a.	n.a.	60	n.a.	n.a.	61
D7a_b Providing continuity of care												
Eliminate resources	n.a.	n.a.	3%	n.a.	n.a.	0%	n.a.	n.a.	7%	n.a.	n.a.	0%
Reduce resources	n.a.	n.a.	8%	n.a.	n.a.	19%	n.a.	n.a.	47%	n.a.	n.a.	25%
No change	n.a.	n.a.	89%	n.a.	n.a.	81%	n.a.	n.a.	45%	n.a.	n.a.	73%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	2%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	60
D7a_c Planning for patients' chronic care needs												
Eliminate resources	n.a.	n.a.	3%	n.a.	n.a.	11%	n.a.	n.a.	10%	n.a.	n.a.	0%
Reduce resources	n.a.	n.a.	52%	n.a.	n.a.	63%	n.a.	n.a.	65%	n.a.	n.a.	49%
No change	n.a.	n.a.	45%	n.a.	n.a.	27%	n.a.	n.a.	23%	n.a.	n.a.	51%

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%
N	n.a.	n.a.	64	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	61
D7a_d Planning for patients' preventive care needs												
Eliminate resources	n.a.	n.a.	2%	n.a.	n.a.	11%	n.a.	n.a.	7%	n.a.	n.a.	0%
Reduce resources	n.a.	n.a.	34%	n.a.	n.a.	52%	n.a.	n.a.	58%	n.a.	n.a.	43%
No change	n.a.	n.a.	65%	n.a.	n.a.	35%	n.a.	n.a.	33%	n.a.	n.a.	57%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	0%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	61
D7a_e Stratifying patients by risk level												
Eliminate resources	n.a.	n.a.	32%	n.a.	n.a.	7%	n.a.	n.a.	20%	n.a.	n.a.	12%
Reduce resources	n.a.	n.a.	35%	n.a.	n.a.	53%	n.a.	n.a.	57%	n.a.	n.a.	58%
No change	n.a.	n.a.	33%	n.a.	n.a.	37%	n.a.	n.a.	22%	n.a.	n.a.	28%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	2%
N	n.a.	n.a.	63	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	65
D7a_f Providing risk-based care management services												
Eliminate resources	n.a.	n.a.	23%	n.a.	n.a.	38%	n.a.	n.a.	27%	n.a.	n.a.	23%
Reduce resources	n.a.	n.a.	60%	n.a.	n.a.	43%	n.a.	n.a.	57%	n.a.	n.a.	55%
No change	n.a.	n.a.	17%	n.a.	n.a.	18%	n.a.	n.a.	15%	n.a.	n.a.	20%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	2%
N	n.a.	n.a.	65	n.a.	n.a.	74	n.a.	n.a.	60	n.a.	n.a.	65
D7a_g Providing behavioral health services integrated within primary care												
Eliminate resources	n.a.	n.a.	17%	n.a.	n.a.	40%	n.a.	n.a.	18%	n.a.	n.a.	15%
Reduce resources	n.a.	n.a.	34%	n.a.	n.a.	12%	n.a.	n.a.	48%	n.a.	n.a.	41%
No change	n.a.	n.a.	15%	n.a.	n.a.	28%	n.a.	n.a.	17%	n.a.	n.a.	41%
Not applicable/no resources currently devoted	n.a.	n.a.	34%	n.a.	n.a.	20%	n.a.	n.a.	17%	n.a.	n.a.	3%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	61
D7a_h Providing medication management to high-risk patients												
Eliminate resources	n.a.	n.a.	5%	n.a.	n.a.	1%	n.a.	n.a.	18%	n.a.	n.a.	7%
Reduce resources	n.a.	n.a.	33%	n.a.	n.a.	54%	n.a.	n.a.	55%	n.a.	n.a.	46%
No change	n.a.	n.a.	56%	n.a.	n.a.	31%	n.a.	n.a.	23%	n.a.	n.a.	41%
Not applicable/no resources currently devoted	n.a.	n.a.	6%	n.a.	n.a.	14%	n.a.	n.a.	3%	n.a.	n.a.	7%
N	n.a.	n.a.	63	n.a.	n.a.	74	n.a.	n.a.	60	n.a.	n.a.	61
D7a_i Engaging patients and their families in their care												
Eliminate resources	n.a.	n.a.	5%	n.a.	n.a.	3%	n.a.	n.a.	12%	n.a.	n.a.	2%
Reduce resources	n.a.	n.a.	42%	n.a.	n.a.	71%	n.a.	n.a.	42%	n.a.	n.a.	43%
No change	n.a.	n.a.	54%	n.a.	n.a.	27%	n.a.	n.a.	43%	n.a.	n.a.	52%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	3%

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	61
D7a_j Collecting and using patient feedback to improve quality of care and patient experience over time												
Eliminate resources	n.a.	n.a.	14%	n.a.	n.a.	27%	n.a.	n.a.	17%	n.a.	n.a.	5%
Reduce resources	n.a.	n.a.	46%	n.a.	n.a.	48%	n.a.	n.a.	30%	n.a.	n.a.	40%
No change	n.a.	n.a.	40%	n.a.	n.a.	23%	n.a.	n.a.	52%	n.a.	n.a.	55%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	2%	n.a.	n.a.	0%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	60
D7a_k Making sure that care is coordinated across the medical neighborhood												
Eliminate resources	n.a.	n.a.	5%	n.a.	n.a.	18%	n.a.	n.a.	14%	n.a.	n.a.	5%
Reduce resources	n.a.	n.a.	50%	n.a.	n.a.	38%	n.a.	n.a.	61%	n.a.	n.a.	39%
No change	n.a.	n.a.	45%	n.a.	n.a.	45%	n.a.	n.a.	22%	n.a.	n.a.	56%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	3%	n.a.	n.a.	0%
N	n.a.	n.a.	64	n.a.	n.a.	74	n.a.	n.a.	59	n.a.	n.a.	61
D7a_l Using data feedback on clinical measures to improve quality of care over time												
Eliminate resources	n.a.	n.a.	17%	n.a.	n.a.	5%	n.a.	n.a.	15%	n.a.	n.a.	2%
Reduce resources	n.a.	n.a.	42%	n.a.	n.a.	35%	n.a.	n.a.	58%	n.a.	n.a.	36%
No change	n.a.	n.a.	40%	n.a.	n.a.	60%	n.a.	n.a.	25%	n.a.	n.a.	62%
Not applicable/no resources currently devoted	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	61
D7a_m Using shared decision-making tools												
Eliminate resources	n.a.	n.a.	16%	n.a.	n.a.	29%	n.a.	n.a.	20%	n.a.	n.a.	30%
Reduce resources	n.a.	n.a.	42%	n.a.	n.a.	45%	n.a.	n.a.	43%	n.a.	n.a.	38%
No change	n.a.	n.a.	42%	n.a.	n.a.	25%	n.a.	n.a.	35%	n.a.	n.a.	33%
Not applicable/no resources currently devoted	n.a.	n.a.	0%	n.a.	n.a.	0%	n.a.	n.a.	2%	n.a.	n.a.	0%
N	n.a.	n.a.	64	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	61
Feedback reports and data files												
D2 Staff who review feedback reports and/or data files												
Staff in practice site	22%	27%	23%	14%	12%	11%	25%	28%	28%	26%	35%	31%
Staff in larger healthcare system or medical group	20%	6%	14%	53%	47%	44%	22%	13%	31%	12%	20%	5%
A combination	57%	67%	63%	34%	41%	45%	53%	59%	41%	57%	43%	63%
Neither	2%	0%	0%	0%	0%	0%	0%	0%	0%	5%	2%	2%
N	65	67	65	74	75	75	59	61	61	65	60	64
Among practices in a healthcare system ^a , staff who review feedback reports and/or data files												
Staff in practice site	3%	8%	14%	2%	0%	2%	5%	7%	12%	6%	31%	12%
Staff in larger healthcare system or medical group	37%	4%	27%	72%	59%	54%	28%	19%	40%	6%	24%	3%

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
A combination	60%	88%	59%	26%	41%	44%	67%	74%	49%	79%	41%	82%
Neither	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	3%	3%
N	30	24	22	50	51	52	43	43	43	33	29	33
Among practices not in a healthcare system ^a , staff who review feedback reports and/or data files												
Staff in practice site	37%	38%	28%	38%	38%	30%	81%	78%	67%	47%	39%	52%
Staff in larger healthcare system or medical group	6%	7%	7%	13%	21%	22%	6%	0%	11%	19%	16%	6%
A combination	54%	55%	65%	50%	42%	48%	13%	22%	22%	34%	45%	42%
Neither	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
N	35	42	43	24	24	23	16	18	18	32	31	31
Experience with feedback reports and data files from Medicare FFS												
D1a_1 Frequency of review of feedback reports from Medicare FFS												
Never	2%	3%	3%	0%	0%	0%	2%	0%	2%	6%	2%	0%
Rarely	2%	2%	0%	1%	3%	3%	7%	0%	2%	11%	12%	6%
Sometimes	3%	17%	6%	26%	12%	11%	25%	8%	5%	11%	33%	34%
Most of the time	15%	23%	28%	12%	12%	31%	7%	48%	37%	20%	21%	25%
Always	67%	53%	59%	58%	73%	55%	57%	42%	52%	44%	32%	31%
Did not receive	12%	3%	3%	3%	0%	0%	2%	2%	3%	9%	0%	5%
N	66	66	64	73	73	74	56	60	60	66	57	65
D1a_2 Of those that reported reviewing the reports, usefulness of feedback reports from Medicare FFS												
Very	24%	43%	46%	4%	34%	13%	21%	33%	45%	25%	15%	15%
Somewhat	73%	55%	52%	88%	51%	82%	75%	63%	53%	54%	70%	74%
Not very	2%	2%	2%	7%	15%	6%	4%	4%	2%	21%	15%	9%
Not at all	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
N	45	56	54	68	68	71	52	57	55	52	53	54
D1c_1 Frequency of review of patient-level data files from Medicare FFS												
Never	3%	14%	10%	0%	8%	8%	7%	5%	3%	9%	5%	3%
Rarely	3%	17%	3%	34%	7%	3%	38%	4%	5%	16%	21%	17%
Sometimes	14%	20%	19%	26%	41%	20%	21%	19%	7%	16%	28%	31%
Most of the time	11%	15%	17%	1%	7%	28%	11%	39%	35%	22%	18%	23%
Always	55%	30%	44%	34%	37%	41%	21%	25%	42%	30%	26%	15%
Did not receive	14%	5%	6%	4%	0%	0%	2%	9%	8%	8%	2%	11%
N	64	66	63	73	73	74	56	57	60	64	57	65
D1c_2 Of those that reported reviewing the data files, usefulness of patient-level data files from Medicare FFS												
Very	14%	27%	33%	4%	11%	13%	13%	56%	67%	20%	8%	11%

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Somewhat	84%	60%	59%	72%	79%	84%	77%	40%	24%	55%	73%	67%
Not very	2%	11%	8%	22%	10%	2%	8%	4%	10%	22%	20%	20%
Not at all	0%	2%	0%	1%	0%	2%	2%	0%	0%	4%	0%	2%
N	43	45	51	67	61	64	48	48	51	51	51	45
Experience with feedback reports and data files from other participating payers												
D1b_1 Frequency of review of feedback reports from other participating payers in CPC												
Never	4%	12%	6%	0%	8%	8%	5%	2%	2%	3%	2%	9%
Rarely	3%	4%	6%	1%	5%	1%	18%	2%	2%	12%	19%	20%
Sometimes	4%	13%	12%	49%	11%	31%	39%	12%	32%	15%	28%	18%
Most of the time	25%	24%	29%	30%	67%	45%	11%	38%	5%	28%	25%	18%
Always	45%	40%	43%	8%	8%	15%	23%	43%	53%	28%	19%	22%
Did not receive	18%	6%	3%	11%	0%	0%	4%	3%	7%	14%	7%	12%
N	67	67	65	73	73	74	56	60	60	65	57	65
D1b_2 Of those that reported reviewing the reports, usefulness of feedback reports from other participating payers in CPC												
Very	18%	18%	29%	3%	29%	8%	6%	42%	40%	10%	12%	23%
Somewhat	79%	80%	68%	68%	60%	89%	69%	56%	55%	48%	67%	30%
Not very	3%	2%	4%	27%	11%	3%	24%	0%	6%	40%	14%	40%
Not at all	0%	0%	0%	2%	0%	0%	0%	2%	0%	2%	6%	7%
N	38	49	56	62	62	65	49	55	53	52	49	43
D1d_1 Frequency of review of patient-level data files from other participating payers in CPC												
Never	5%	5%	9%	0%	10%	10%	11%	5%	3%	5%	12%	14%
Rarely	3%	11%	8%	5%	7%	26%	21%	5%	7%	15%	23%	25%
Sometimes	12%	23%	27%	53%	44%	26%	42%	40%	30%	23%	30%	15%
Most of the time	15%	18%	19%	27%	29%	23%	4%	10%	7%	18%	12%	8%
Always	45%	34%	34%	7%	8%	15%	17%	37%	38%	21%	14%	17%
Did not receive	20%	10%	3%	7%	1%	0%	6%	3%	15%	18%	9%	22%
N	66	62	64	73	72	73	53	60	60	66	57	65
D1d_2 Of those that reported reviewing the data files, usefulness of patient-level data files from other participating payers in CPC												
Very	11%	23%	28%	5%	10%	8%	23%	40%	34%	9%	9%	17%
Somewhat	89%	72%	65%	75%	83%	87%	64%	57%	60%	47%	61%	31%
Not very	0%	2%	7%	20%	7%	5%	11%	2%	6%	38%	25%	46%
Not at all	0%	4%	0%	0%	0%	0%	2%	2%	0%	6%	5%	6%
N	37	53	54	65	58	62	44	53	47	47	44	35

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Plan-Do-Study-Act Cycles												
D2a Practice site's awareness of Plan-Do-Study-Act (PDSA) cycles												
Never heard of PDSA cycles	n.a	n.a	12%	n.a	n.a	7%	n.a	n.a	0%	n.a	n.a	5%
Has heard of PDSA cycles but never used them	n.a	n.a	23%	n.a	n.a	7%	n.a	n.a	10%	n.a	n.a	26%
Has heard of PDSA cycles and has used them	n.a	n.a	65%	n.a	n.a	87%	n.a	n.a	90%	n.a	n.a	69%
N			65			75			61			65
D2b Of practice sites that have heard of and used PDSA cycles, practice first started using PDSA cycles												
In the past year	n.a	n.a	14%	n.a	n.a	19%	n.a	n.a	0%	n.a	n.a	11%
Two or three years ago	n.a	n.a	43%	n.a	n.a	23%	n.a	n.a	56%	n.a	n.a	29%
More than three years ago	n.a	n.a	43%	n.a	n.a	58%	n.a	n.a	44%	n.a	n.a	60%
N	n.a	n.a	42	n.a	n.a	64	n.a	n.a	55	n.a	n.a	45
D2c Of practice sites that started using PDSA cycles two or more years ago, practice used PDSA cycles in the past year												
Yes	n.a	n.a	67%	n.a	n.a	94%	n.a	n.a	80%	n.a	n.a	88%
No	n.a	n.a	33%	n.a	n.a	6%	n.a	n.a	20%	n.a	n.a	13%
N	n.a	n.a	36	n.a	n.a	53	n.a	n.a	55	n.a	n.a	40
Proportion of patients attributed by CPC payers												
D3 Proportion of practices total patient panel that is included in or attributed to CPC												
Less than 20 percent	3%	3%	5%	0%	1%	4%	30%	32%	16%	24%	32%	15%
20 to 39 percent	15%	8%	7%	22%	15%	12%	9%	7%	23%	18%	25%	37%
40 to 59 percent	23%	33%	26%	42%	37%	54%	7%	10%	11%	32%	14%	26%
60 to 79 percent	35%	23%	30%	23%	27%	15%	25%	40%	44%	17%	21%	17%
80 percent or more	23%	33%	33%	14%	20%	15%	30%	12%	5%	9%	9%	5%
N	65	64	61	74	71	74	57	60	61	66	57	65
Shared savings from Medicare FFS and non-Medicare payers												
D4a Likelihood practice will receive CPC shared savings or bonus payments from any CPC participating payer in 2015												
Very	n.a.	25%	n.a.	n.a.	36%	n.a.	n.a.	51%	n.a.	n.a.	37%	n.a.
Somewhat	n.a.	61%	n.a.	n.a.	38%	n.a.	n.a.	31%	n.a.	n.a.	42%	n.a.
Not very	n.a.	13%	n.a.	n.a.	24%	n.a.	n.a.	10%	n.a.	n.a.	18%	n.a.
Not at all	n.a.	0%	n.a.	n.a.	1%	n.a.	n.a.	8%	n.a.	n.a.	4%	n.a.
N	n.a.	67	n.a.	n.a.	74	n.a.	n.a.	61	n.a.	n.a.	57	n.a.

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Practice's experience with CPC shared savings from Medicare												
D4a1_a Practice understood how Medicare shared savings in 2015 were calculated												
Strongly agree	n.a.	n.a.	6%	n.a.	n.a.	3%	n.a.	n.a.	3%	n.a.	n.a.	6%
Agree	n.a.	n.a.	55%	n.a.	n.a.	89%	n.a.	n.a.	43%	n.a.	n.a.	62%
Disagree	n.a.	n.a.	32%	n.a.	n.a.	8%	n.a.	n.a.	46%	n.a.	n.a.	22%
Strongly disagree	n.a.	n.a.	6%	n.a.	n.a.	0%	n.a.	n.a.	8%	n.a.	n.a.	10%
N	n.a.	n.a.	65	n.a.	n.a.	72	n.a.	n.a.	61	n.a.	n.a.	63
D4a1_b Practice felt the methodology used to calculate Medicare shared savings in 2015 was fair												
Strongly agree	n.a.	n.a.	3%	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	2%
Agree	n.a.	n.a.	35%	n.a.	n.a.	33%	n.a.	n.a.	65%	n.a.	n.a.	32%
Disagree	n.a.	n.a.	49%	n.a.	n.a.	66%	n.a.	n.a.	25%	n.a.	n.a.	55%
Strongly disagree	n.a.	n.a.	12%	n.a.	n.a.	0%	n.a.	n.a.	8%	n.a.	n.a.	11%
N	n.a.	n.a.	65	n.a.	n.a.	73	n.a.	n.a.	60	n.a.	n.a.	62
D4a1_c Practice knew what changes were required to receive Medicare shared savings in 2016												
Strongly agree	n.a.	n.a.	11%	n.a.	n.a.	1%	n.a.	n.a.	3%	n.a.	n.a.	2%
Agree	n.a.	n.a.	51%	n.a.	n.a.	47%	n.a.	n.a.	70%	n.a.	n.a.	47%
Disagree	n.a.	n.a.	37%	n.a.	n.a.	51%	n.a.	n.a.	21%	n.a.	n.a.	44%
Strongly disagree	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	5%	n.a.	n.a.	8%
N	n.a.	n.a.	65	n.a.	n.a.	74	n.a.	n.a.	61	n.a.	n.a.	64
D4a2 Likelihood practice will receive CPC shared savings from Medicare in 2016												
Very	n.a.	n.a.	9%	n.a.	n.a.	19%	n.a.	n.a.	18%	n.a.	n.a.	11%
Somewhat	n.a.	n.a.	57%	n.a.	n.a.	51%	n.a.	n.a.	61%	n.a.	n.a.	37%
Not very	n.a.	n.a.	29%	n.a.	n.a.	29%	n.a.	n.a.	16%	n.a.	n.a.	45%
Not at all	n.a.	n.a.	5%	n.a.	n.a.	1%	n.a.	n.a.	5%	n.a.	n.a.	8%
N	n.a.	n.a.	65	n.a.	n.a.	75	n.a.	n.a.	61	n.a.	n.a.	65
Practice's experience with CPC shared savings from participating non-Medicare payers												
D4a3_a Practice understood how shared savings were calculated in 2015												
Strongly agree	n.a.	n.a.	2%	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	2%
Agree	n.a.	n.a.	44%	n.a.	n.a.	62%	n.a.	n.a.	41%	n.a.	n.a.	46%
Disagree	n.a.	n.a.	53%	n.a.	n.a.	36%	n.a.	n.a.	49%	n.a.	n.a.	37%
Strongly disagree	n.a.	n.a.	2%	n.a.	n.a.	0%	n.a.	n.a.	8%	n.a.	n.a.	16%
N	n.a.	n.a.	62	n.a.	n.a.	74	n.a.	n.a.	61	n.a.	n.a.	63

Table D.11b (continued)

Question	NY			OH/KY			OK			OR		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
D4a3_b Practice felt the methodology used to calculate shared savings in 2015 was fair												
Strongly agree	n.a.	n.a.	2%	n.a.	n.a.	1%	n.a.	n.a.	5%	n.a.	n.a.	2%
Agree	n.a.	n.a.	45%	n.a.	n.a.	45%	n.a.	n.a.	68%	n.a.	n.a.	27%
Disagree	n.a.	n.a.	48%	n.a.	n.a.	53%	n.a.	n.a.	17%	n.a.	n.a.	58%
Strongly disagree	n.a.	n.a.	5%	n.a.	n.a.	1%	n.a.	n.a.	10%	n.a.	n.a.	13%
N	n.a.	n.a.	62	n.a.	n.a.	74	n.a.	n.a.	59	n.a.	n.a.	62
D4a3_c Practice knew what changes were required to receive shared savings in 2016												
Strongly agree	n.a.	n.a.	3%	n.a.	n.a.	1%	n.a.	n.a.	2%	n.a.	n.a.	0%
Agree	n.a.	n.a.	44%	n.a.	n.a.	72%	n.a.	n.a.	67%	n.a.	n.a.	34%
Disagree	n.a.	n.a.	52%	n.a.	n.a.	26%	n.a.	n.a.	23%	n.a.	n.a.	52%
Strongly disagree	n.a.	n.a.	2%	n.a.	n.a.	1%	n.a.	n.a.	8%	n.a.	n.a.	15%
N	n.a.	n.a.	62	n.a.	n.a.	74	n.a.	n.a.	61	n.a.	n.a.	62
D4a4 Likelihood practice will receive CPC shared savings from any participating non-Medicare payer in 2016												
Very	n.a.	n.a.	11%	n.a.	n.a.	24%	n.a.	n.a.	13%	n.a.	n.a.	13%
Somewhat	n.a.	n.a.	73%	n.a.	n.a.	51%	n.a.	n.a.	65%	n.a.	n.a.	28%
Not very	n.a.	n.a.	13%	n.a.	n.a.	25%	n.a.	n.a.	12%	n.a.	n.a.	50%
Not at all	n.a.	n.a.	3%	n.a.	n.a.	0%	n.a.	n.a.	10%	n.a.	n.a.	9%
N	n.a.	n.a.	63	n.a.	n.a.	75	n.a.	n.a.	60	n.a.	n.a.	64
Adequacy of practice payments from Medicare FFS and other payers												
D4 Medicare FFS												
More than adequate	5%	2%	5%	11%	7%	7%	21%	2%	0%	5%	5%	3%
Adequate	81%	92%	78%	87%	81%	86%	70%	67%	66%	70%	58%	65%
Less than adequate	14%	6%	17%	1%	13%	7%	9%	31%	34%	25%	36%	32%
N	63	65	59	70	72	73	56	61	61	64	55	63
Average adequacy among all payers in the region												
More than adequate	1%	0%	0%	1%	4%	1%	0%	2%	1%	0%	1%	1%
Adequate	55%	56%	52%	65%	64%	50%	26%	26%	29%	28%	26%	30%
Less than adequate	19%	25%	26%	22%	20%	37%	37%	39%	34%	32%	37%	27%
Not working with payer	25%	18%	22%	12%	12%	12%	37%	33%	36%	40%	36%	41%
N	64	66	64	71	73	74	56	61	61	64	56	64

Sources: CPC practice surveys administered April through July 2014, April through August 2015, and April through August 2016.

Note: Question numbers pertain to the 2016 CPC practice survey.

Table D.11b *(continued)*

^a We defined whether the practice is in a healthcare system or not using responses to two questions on the 2016 CPC practice survey. These questions asked practices to describe the medical organization that employs the clinicians at the practice site and who owns the practice. We considered practices with these responses to be in a healthcare system: group or staff model HMO; network of clinician practices owned by a hospital, hospital system, or medical school; public or private hospital, health system, or foundation owned by a hospital, or medical school or university.

n.a. = not applicable because the question was not asked in the given survey round; FFS = fee-for-service.

Table D.12. Percentage of CPC practices with different staff types by year and change over time

Staff type	2012	2014	2016	2012 (or 2014) to 2016 change (pp)
Number of practices	461	461	461	
Primary care clinicians reported on annual roster files	100	100	100	0
Physicians	100	n.a.	n.a.	n.a.
Primary care physician (MD or DO)	n.a.	100	99	-1
Specialty physician	n.a.	12	12	0
Nurse Practitioners and Physician Assistants (NPs and PAs)	53	n.a.	n.a.	n.a.
NP/PA who can bill under own NPI	n.a.	44	50	5
NP/PA who do not bill under own NPI	n.a.	21	19	-2
RNs, excluding RN care managers	35	45	43	8**
Nutritionists	4	11	13	9***
Behavioral health, clinical psychologist, or social worker	n.a.	19	29	10***
Health educators	4	9	9	5***
Care managers/care coordinators who coordinate care for patients in the practice with other providers	24	85	84	60***
Community services coordinators who link patients in the practice with available services and resources in the community	4	5	4	0
Medical assistants	90	88	90	0
LPNs/LVNs	47	50	52	5
Pharmacists	8	14	18	10***
Administrative (reception, medical records, appointment, finance, etc.)	99	n.a.	n.a.	n.a.
Receptionist	n.a.	95	96	0
Accountant or financial manager	n.a.	13	17	4*
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator	n.a.	51	53	2
Practice supervisor or practice manager	n.a.	91	93	2
Quality improvement specialists	n.a.	11	18	7***
Physical or respiratory therapist	n.a.	3	3	0
Lab or radiology technician	n.a.	31	33	2
Health information technologist or EHR specialists	n.a.	16	18	2
Other	n.a.	21	22	1

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: The sample is restricted to the 461 CPC practices that responded to the 2012, 2014, and 2016 surveys.

pp = percentage point; n.a. = not applicable because that staff type was not asked about in that survey; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

*/**/** change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.13. Percentage of CPC practices with different staff types by year and change over time, by baseline practice size^a

Staff type	1 clinician in 2012				2-3 clinicians in 2012				4-5 clinicians in 2012				6-10 clinicians in 2012				More than 10 clinicians in 2012			
	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)
Number of practices	71	71	71		156	156	156		109	109	109		93	93	93		32	32	32	
Primary care clinicians reported on annual roster files ^b	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0
Physicians	99	n.a.	n.a.	n.a.	100	n.a.	n.a.	n.a.	100	n.a.	n.a.	n.a.	100	n.a.	n.a.	n.a.	100	n.a.	n.a.	n.a.
Primary care physician (MD or DO)	n.a.	97	99	2	n.a.	100	99	-1	n.a.	100	99	-1	n.a.	100	99	-1	n.a.	100	97	-3
Specialty physician	n.a.	3	3	0	n.a.	6	8	2	n.a.	7	8	1	n.a.	19	19	0	n.a.	53	41	-13
Nurse Practitioners and Physician Assistants (NPs and PAs)	30	n.a.	n.a.	n.a.	48	n.a.	n.a.	n.a.	52	n.a.	n.a.	n.a.	68	n.a.	n.a.	n.a.	91	n.a.	n.a.	n.a.
NP/PA who can bill under own NPI	n.a.	24	21	-3	n.a.	38	45	6	n.a.	44	54	11	n.a.	62	66	3	n.a.	66	75	9
NP/PA who do not bill under own NPI	n.a.	22	20	-3	n.a.	20	21	1	n.a.	19	15	-5	n.a.	19	22	2	n.a.	31	22	-9
RNs, excluding RN care managers	20	33	30	10	26	34	29	3	31	44	42	11*	55	59	63	9	69	88	84	16
Nutritionists	0	9	4	4*	3	6	11	8***	3	7	12	9***	9	18	24	15***	13	22	22	9
Behavioral health, clinical psychologist, or social worker	n.a.	6	13	7	n.a.	8	19	11***	n.a.	15	25	10**	n.a.	37	49	13*	n.a.	59	72	13
Health educators	4	0	4	0	1	8	9	8***	4	12	7	4	8	11	16	9*	13	22	9	-3
Care managers/care coordinators who coordinate care for patients in the practice with other providers	17	73	75	58***	17	82	79	62***	21	92	86	65***	34	86	94	59***	53	91	94	41***
Community services coordinators who link patients in the practice with available services and resources in the community	4	0	1	-3	1	4	1	-1	4	2	6	2	6	11	6	0	13	9	19	6
Medical assistants	89	84	77	-11*	85	84	92	8**	92	94	92	0	95	90	91	-3	94	94	91	-3
LPNs/LVNs	32	36	39	7	46	47	47	2	40	48	50	10	62	60	65	2	69	69	75	6

Table D.13 (continued)

Staff type	1 clinician in 2012				2-3 clinicians in 2012				4-5 clinicians in 2012				6-10 clinicians in 2012				More than 10 clinicians in 2012			
	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)	2012	2014	2016	2012 (or 2014) to 2016 change (pp)
Pharmacists	1	4	6	4	2	8	12	10***	4	9	13	9**	17	27	30	13**	34	47	53	19
Administrative (reception, medical records, appointment, finance, etc.)	97	n.a.	n.a.	n.a.	98	n.a.	n.a.	n.a.	99	n.a.	n.a.	n.a.	100	n.a.	n.a.	n.a.	100	n.a.	n.a.	n.a.
Receptionist	n.a.	84	89	5	n.a.	96	95	-1	n.a.	97	98	1	n.a.	99	99	0	n.a.	100	97	-3
Accountant or financial manager	n.a.	3	14	11**	n.a.	9	17	8**	n.a.	10	12	2	n.a.	23	18	-4	n.a.	34	41	6
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator	n.a.	43	37	-7	n.a.	38	45	6	n.a.	49	50	1	n.a.	73	78	5	n.a.	75	66	-9
Practice supervisor or practice manager	n.a.	73	77	4	n.a.	88	93	5	n.a.	99	98	-1	n.a.	98	97	-1	n.a.	97	97	0
Quality improvement specialists	n.a.	4	7	3	n.a.	10	18	8**	n.a.	11	16	4	n.a.	17	20	3	n.a.	16	41	25**
Physical or respiratory therapist	n.a.	1	1	0	n.a.	0	1	0	n.a.	2	1	-1	n.a.	6	6	0	n.a.	19	13	-6
Lab or radiology technician	n.a.	12	18	6	n.a.	23	24	1	n.a.	32	36	3	n.a.	48	48	0	n.a.	59	59	0
Health information technologist or EHR specialists	n.a.	9	21	12**	n.a.	9	14	5	n.a.	15	12	-3	n.a.	29	24	-5	n.a.	28	28	0
Other	n.a.	7	8	1	n.a.	13	19	6	n.a.	19	28	10*	n.a.	34	29	-5	n.a.	53	25	-28**

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: The sample is restricted to the 461 CPC practices that responded to the 2012, 2014, and 2016 surveys.

^a Practice size was determined using practice-provided rosters of the primary care physicians and NPs and PAs that bill under their own NPI. The roster files were collected in November 2012 and report the number of these clinicians at the practice site in October 2012, the first month of CPC.

^b The number of primary care clinicians includes primary care physicians, nurse practitioners, and physician assistants that can bill under their own NPI. Practices reported this information to CMS each month; the numbers for this analysis come from the roster files reported November of the corresponding year.

pp = percentage point; n.a. = not applicable because that staff type was not asked about in that survey; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

*/**/** change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.14. Mean number of FTE staff in CPC practices with staff type and change over time, by baseline practice size^a

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Primary care clinicians reported on annual roster files ^b	4.5	7.0	2.5***	1.0	1.7	0.7***	2.5	4.0	1.5***	4.4	6.7	2.3***	7.4	11.2	3.8***	14.5	21.8	7.3***
Physicians	3.8	n.a.	n.a.	1.4	n.a.	n.a.	2.1	n.a.	n.a.	3.7	n.a.	n.a.	5.6	n.a.	n.a.	13.2	n.a.	n.a.
Primary care physician (MD or DO) (2014)	3.5	3.5	0.1	1.1	1.1	0.0	2.0	2.1	0.1	3.7	3.5	-0.1	5.4	5.4	0.0	9.1	10.8	1.7
Specialty physician (2014)	3.5	2.7	-0.8	0.8	1.0	0.3	1.4	1.7	0.3	1.4	1.3	-0.1	3.2	2.3	-0.9	6.3	5.5	-0.8
Nurse Practitioners and Physician Assistants (NPs and PAs)	1.7	n.a.	n.a.	1.2	n.a.	n.a.	1.2	n.a.	n.a.	1.3	n.a.	n.a.	2.1	n.a.	n.a.	2.8	n.a.	n.a.
NP/PA who can bill under own NPI (2014)	1.7	1.9	0.3***	0.8	1.1	0.3	1.1	1.4	0.3**	1.3	1.7	0.4**	2.3	2.3	0.0	2.9	3.7	0.8*
NP/PA who do not bill under own NPI (2014)	1.9	2.0	0.1	1.5	1.4	-0.1	1.2	1.3	0.1	1.7	1.9	0.2	2.5	2.9	0.4	3.7	3.8	0.1
RNs, excluding RN care managers	2.1	2.0	-0.2	1.2	1.0	-0.2	1.4	1.1	-0.3	1.6	1.6	0.0	2.5	2.7	0.1	4.0	3.4	-0.7
Nutritionists	0.9	0.8	-0.1***	0.6	0.7	0.1	0.4	0.6	0.2***	1.4	0.7	-0.7	0.9	0.9	-0.0**	1.3	1.4	0.1
Behavioral health, clinical psychologist, or social worker (2014)	1.1	1.2	0.0***	0.8	0.8	0.0	0.7	0.7	0.0**	0.8	0.9	0.0*	1.1	1.3	0.2*	1.7	1.8	0.2
Health educators	1.3	0.8	-0.5	1.2	0.5	-0.7	1.0	0.7	-0.3**	1.2	0.8	-0.3	1.4	0.9	-0.5	1.6	1.0	-0.6
Care managers/care coordinators who coordinate care for patients in the practice with other providers	1.5	1.4	-0.2***	0.9	0.9	0.1***	1.5	1.0	-0.5***	1.1	1.3	0.2***	1.5	1.7	0.2***	2.7	2.9	0.1**
Community services coordinators who link patients in the practice with available services and resources in the community	1.2	1.3	0.1	1.0	0.5	-0.5	1.0	1.0	0.0	1.0	1.4	0.4	0.9	0.8	0.0	2.1	1.8	-0.3
Medical assistants	4.9	5.5	0.7*	2.1	2.0	-0.1	3.0	3.2	0.2*	5.1	5.7	0.6	6.3	7.7	1.4	14.1	16.5	2.4
LPNs/LVNs	3.0	3.1	0.1	1.6	1.5	-0.1	1.9	2.0	0.1	2.9	2.9	0.0	4.2	4.6	0.4	5.1	5.3	0.2
Pharmacists	1.7	1.4	-0.3	1.0	0.6	-0.4	0.6	0.7	0.1***	1.1	1.1	0.1	1.2	1.5	0.2	3.0	2.4	-0.6

Table D.14 (continued)

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Administrative (reception, medical records, appointment, finance, etc)	7.1	n.a.	n.a.	2.9	n.a.	n.a.	3.7	n.a.	n.a.	6.5	n.a.	n.a.	10.9	n.a.	n.a.	23.4	n.a.	n.a.
Receptionist (2014)	3.9	4.1	0.2	1.6	1.6	0.0	2.3	2.5	0.2	3.7	3.9	0.3	6.0	6.0	0.0	10.0	10.8	0.8
Accountant or financial manager (2014)	1.0	1.0	-0.1	0.5	0.8	0.3**	0.8	0.7	-0.1*	1.0	1.2	0.1	0.9	0.9	0.0	1.7	1.4	-0.3
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator (2014)	4.1	3.2	-0.9	1.1	1.6	0.5	1.9	1.4	-0.4	3.7	3.1	-0.6	4.1	3.6	-0.5	13.5	9.5	-4.1
Practice supervisor or practice manager (2014)	1.1	1.2	0.0	1.0	0.9	-0.1	1.0	1.0	0.1**	1.2	1.1	-0.1	1.3	1.4	0.1	1.5	1.8	0.3
Quality improvement specialists (2014)	0.8	0.8	0.00**	0.8	0.6	-0.2	0.7	0.7	0.1**	0.7	0.7	0.0	0.9	0.8	-0.1	1.5	1.4	-0.1
Physical or respiratory therapist (2014)	3.3	2.4	-0.9	1.0	0.5	-0.5	0.0	0.5	-0.5	3.5	6.0	2.5	1.5	1.3	-0.3	5.5	4.3	-1.3
Lab or radiology technician (2014)	3.0	2.9	-0.1	1.1	0.8	-0.2	1.2	1.2	0.0	2.0	1.9	-0.1	3.0	2.7	-0.3	8.9	9.9	1.0
Health information technologist or EHR specialists (2014)	1.2	1.1	-0.1	0.8	0.6	-0.1	0.7	0.8	0.0	1.2	1.2	0.0	1.0	1.1	0.1	3.4	3.1	-0.3
Other (2014)	3.4	2.8	-0.7	1.0	1.1	0.1	1.2	1.2	0.0	3.2	1.9	-1.3	2.8	4.9	2.1	8.4	6.2	-2.2**

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: The sample is restricted to the 461 CPC practices that responded to the 2012, 2014, and 2016 surveys. In 2012, we asked practices for the number of FTE in each staff type. In the later surveys, we asked for the number of full-time and part-time staff. We estimated that a part-time staff was equivalent to 0.5 FTE.

^a Practice size was determined using practice-provided rosters of the primary care physicians and NPs and PAs that bill under their own NPI. The roster files were collected in November 2012 and report the number of these clinicians at the practice site in October 2012, the first month of CPC.

^b The number of primary care clinicians includes primary care physicians, nurse practitioners, and physician assistants that can bill under their own NPI. Practices reported this information to CMS each month; the numbers for this analysis come from the roster files reported November of the corresponding year.

n.a. = not applicable because that staff type was not asked about in that survey; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

*/**/**** change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.15. Mean number of FTE staff per primary care clinician in CPC practices with staff type and change over time, by baseline practice size^a

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Primary care clinicians reported on annual roster files ^b	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0
Physicians	0.9	n.a.	n.a.	1.4	n.a.	n.a.	0.9	n.a.	n.a.	0.8	n.a.	n.a.	0.8	n.a.	n.a.	0.9	n.a.	n.a.
Primary care physician (MD or DO) (2014)	0.7	0.6	-0.1***	1.0	0.8	-0.1*	0.7	0.6	-0.1***	0.7	0.6	-0.1***	0.6	0.5	-0.1***	0.5	0.5	0.0
Specialty physician (2014)	0.4	0.3	-0.1	0.8	1.0	0.3	0.5	0.5	0.0	0.3	0.2	0.0	0.4	0.2	-0.2	0.4	0.3	-0.1
Nurse Practitioners and Physician Assistants (NPs and PAs)	0.4	n.a.	n.a.	1.2	n.a.	n.a.	0.5	n.a.	n.a.	0.3	n.a.	n.a.	0.3	n.a.	n.a.	0.2	n.a.	n.a.
NP/PA who can bill under own NPI (2014)	0.3	0.3	0.0	0.5	0.5	0.0	0.3	0.3	0.0	0.2	0.2	0.0	0.2	0.2	0.0	0.2	0.2	0.0
NP/PA who do not bill under own NPI (2014)	0.5	0.4	-0.1	1.4	0.9	-0.5	0.4	0.3	-0.1	0.3	0.3	0.0	0.3	0.3	0.0	0.3	0.2	0.0
RNs, excluding RN care managers	0.5	0.3	-0.2	1.2	0.9	-0.3	0.6	0.3	-0.3**	0.4	0.3	-0.1	0.3	0.2	-0.1	0.3	0.2	-0.1
Nutritionists	0.2	0.1	-0.0***	0.6	0.6	0.0	0.1	0.2	0.0**	0.4	0.1	-0.2	0.1	0.1	0.0	0.1	0.1	0.0
Behavioral health, clinical psychologist, or social worker (2014)	0.2	0.2	-0.0**	0.7	0.5	-0.2	0.2	0.2	-0.0*	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Health educators	0.3	0.1	-0.2	1.2	0.4	-0.8	0.3	0.2	-0.1**	0.3	0.1	-0.1	0.2	0.1	-0.1	0.1	0.1	-0.1
Care managers/care coordinators who coordinate care for patients in the practice with other providers	0.4	0.3	-0.1***	0.9	0.6	-0.2***	0.6	0.3	-0.3***	0.2	0.2	-0.0***	0.2	0.2	-0.0***	0.2	0.2	0.0
Community services coordinators who link patients in the practice with available services and resources in the community	0.3	0.2	-0.2	1.0	0.5	-0.5	0.5	0.5	0.0	0.2	0.2	0.0	0.1	0.1	0.0	0.2	0.1	-0.1
Medical assistants	1.3	0.9	-0.4***	2.1	1.3	-0.9***	1.2	0.9	-0.3**	1.2	0.9	-0.3***	0.9	0.7	-0.2**	1.0	0.8	-0.2
LPNs/LVNs	0.8	0.6	-0.2	1.6	1.2	-0.4	0.8	0.6	-0.2*	0.7	0.5	-0.2	0.6	0.5	-0.1	0.4	0.3	-0.1
Pharmacists	0.2	0.2	-0.1	1.0	0.4	-0.6	0.2	0.2	0.0***	0.2	0.2	-0.1	0.2	0.1	-0.1	0.2	0.1	-0.1

D.145

Table D.15 (continued)

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Administrative (reception, medical records, appointment, finance, etc)	1.7	n.a	n.a.	2.9	n.a	n.a.	1.5	n.a	n.a.	1.5	n.a	n.a.	1.5	n.a	n.a.	1.7	n.a	n.a.
Receptionist (2014)	0.8	0.7	-0.1**	1.3	1.2	-0.1	0.8	0.7	-0.1**	0.7	0.6	-0.1**	0.7	0.6	-0.1**	0.6	0.6	0.0
Accountant or financial manager (2014)	0.2	0.2	0.0**	0.4	0.6	0.2**	0.3	0.2	0.0	0.2	0.2	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator (2014)	0.7	0.5	-0.1	1.0	1.4	0.4	0.6	0.4	-0.2	0.6	0.5	-0.2	0.5	0.3	-0.1	0.9	0.5	-0.3
Practice supervisor or practice manager (2014)	0.3	0.3	-0.1**	0.8	0.6	-0.2*	0.3	0.3	0.0	0.2	0.2	-0.1**	0.1	0.1	-0.0*	0.1	0.1	0.0
Quality improvement specialists (2014)	0.2	0.1	0.0	0.7	0.2	-0.5	0.3	0.2	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Physical or respiratory therapist (2014)	0.3	0.2	-0.1	0.5	0.3	-0.3	0.0	0.1	0.0	0.5	0.5	0.0	0.2	0.1	-0.1	0.3	0.2	-0.1
Lab or radiology technician (2014)	0.4	0.4	-0.1	1.1	0.7	-0.4	0.4	0.3	-0.1	0.3	0.3	-0.1	0.4	0.3	-0.1	0.6	0.6	0.0
Health information technologist or EHR specialists (2014)	0.2	0.2	0.0	0.7	0.4	-0.3	0.2	0.2	0.0	0.2	0.2	0.0	0.1	0.1	0.0	0.2	0.2	0.0
Other (2014)	0.4	0.3	-0.1	0.7	0.4	-0.3	0.4	0.3	-0.1	0.5	0.3	-0.3	0.4	0.4	0.0	0.4	0.3	-0.1**

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: The sample is restricted to the 461 CPC practices that responded to the 2012, 2014, and 2016 surveys. In 2012, we asked practices for the number of FTE in each staff type. In the later surveys, we asked for the number of full-time and part-time staff. We estimated that a part-time staff was equivalent to 0.5 FTE. For the denominator of each ratio we used the number of FTE physicians reported in the November 2012, 2014, and 2016 clinician roster files to CMS; the numerator is the FTE staff reported by practices in the survey.

^a Practice size was determined using practice-provided rosters of the primary care physicians and NPs and PAs that bill under their own NPI. The roster files were collected in November 2012 and report the number of these clinicians at the practice site in October 2012, the first month of CPC.

^b The number of primary care clinicians includes primary care physicians, nurse practitioners, and physician assistants that can bill under their own NPI. Practices reported this information to CMS each month; the numbers for this analysis come from the roster files reported November of the corresponding year.

n.a. = not applicable because that staff type was not asked about in that survey; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

/ change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.16. Mean number of FTE staff in all CPC practices and change over time, by baseline practice size^a

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Number of practices	461	461		71	71		156	156		109	109		93	93		32	32	
Primary care clinicians reported on annual roster files ^b	4.5	7.0	2.5***	1.0	1.7	0.7***	2.5	4.0	1.5***	4.4	6.7	2.3***	7.4	11.2	3.8***	14.5	21.8	7.3***
Physicians	3.8	n.a.	n.a.	1.4	n.a.	n.a.	2.1	n.a.	n.a.	3.7	n.a.	n.a.	5.6	n.a.	n.a.	13.2	n.a.	n.a.
Primary care physician (MD or DO) (2014)	3.5	3.5	0.0	1.1	1.1	0.0	2.0	2.1	0.1	3.7	3.5	-0.2	5.4	5.3	-0.1	9.1	10.5	1.4
Specialty physician (2014)	0.4	0.3	-0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.6	0.4	-0.2	3.4	2.3	-1.1
Nurse Practitioners and Physician Assistants (NPs and PAs)	0.9	n.a.	n.a.	0.4	n.a.	n.a.	0.6	n.a.	n.a.	0.7	n.a.	n.a.	1.4	n.a.	n.a.	2.6	n.a.	n.a.
NP/PA who can bill under own NPI (2014)	0.7	1.0	0.2***	0.2	0.2	0.0	0.4	0.6	0.2**	0.6	0.9	0.4**	1.4	1.5	0.1	1.9	2.8	0.9*
NP/PA who do not bill under own NPI (2014)	0.4	0.4	0.0	0.3	0.3	-0.1	0.2	0.3	0.0	0.3	0.3	-0.1	0.5	0.6	0.1	1.2	0.8	-0.3
RNs, excluding RN care managers	0.8	0.9	0.1	0.2	0.3	0.1	0.4	0.3	0.0	0.5	0.7	0.2	1.4	1.7	0.3	2.8	2.8	0.1
Nutritionists	0.0	0.1	0.1***	0.0	0.0	0.0	0.0	0.1	0.1***	0.0	0.1	0.0	0.1	0.2	0.1**	0.2	0.3	0.1
Behavioral health, clinical psychologist, or social worker (2014)	0.2	0.3	0.1***	0.0	0.1	0.1	0.1	0.1	0.1**	0.1	0.2	0.1*	0.4	0.7	0.2*	1.0	1.3	0.3
Health educators	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0**	0.0	0.1	0.0	0.1	0.1	0.0	0.2	0.1	-0.1
Care managers/care coordinators who coordinate care for patients in the practice with other providers	0.4	1.1	0.8***	0.1	0.7	0.5***	0.3	0.8	0.5***	0.2	1.1	0.9***	0.5	1.6	1.1***	1.5	2.7	1.2**
Community services coordinators who link patients in the practice with available services and resources in the community	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.3	0.3	0.1
Medical assistants	4.4	5.0	0.6*	1.9	1.6	-0.3	2.5	3.0	0.4*	4.7	5.3	0.6	5.9	7.0	1.1	13.2	15.0	1.8
LPNs/LVNs	1.4	1.6	0.2	0.5	0.6	0.1	0.8	0.9	0.1	1.2	1.4	0.3	2.6	3.0	0.3	3.5	4.0	0.5
Pharmacists	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1***	0.0	0.1	0.1	0.2	0.4	0.2	1.0	1.3	0.3

D.147

Table D.16 (continued)

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Administrative (reception, medical records, appointment, finance, etc)	7.0	n.a.	n.a.	2.8	n.a.	n.a.	3.6	n.a.	n.a.	6.4	n.a.	n.a.	10.9	n.a.	n.a.	23.4	n.a.	n.a.
Receptionist (2014)	3.7	3.9	0.2	1.3	1.4	0.1	2.2	2.4	0.2	3.6	3.9	0.3	5.9	6.0	0.0	10.0	10.5	0.5
Accountant or financial manager (2014)	0.1	0.2	0.0	0.0	0.1	0.1**	0.1	0.1	0.1*	0.1	0.1	0.0	0.2	0.2	0.0	0.6	0.6	0.0
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator (2014)	2.1	1.7	-0.4	0.5	0.6	0.1	0.7	0.6	-0.1	1.8	1.6	-0.3	3.0	2.8	-0.2	10.1	6.2	-3.9
Practice supervisor or practice manager (2014)	1.0	1.1	0.0	0.7	0.7	0.0	0.9	0.9	0.1**	1.2	1.1	-0.1	1.2	1.4	0.1	1.5	1.8	0.3
Quality improvement specialists (2014)	0.1	0.1	0.1**	0.0	0.0	0.0	0.1	0.1	0.1**	0.1	0.1	0.0	0.2	0.2	0.0	0.2	0.6	0.3
Physical or respiratory therapist (2014)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	1.0	0.5	-0.5
Lab or radiology technician (2014)	0.9	1.0	0.0	0.1	0.2	0.0	0.3	0.3	0.0	0.7	0.7	0.0	1.5	1.3	-0.1	5.3	5.9	0.6
Health information technologist or EHR specialists (2014)	0.2	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.0	0.3	0.3	0.0	1.0	0.9	-0.1
Other (2014)	0.7	0.6	-0.1	0.1	0.1	0.0	0.2	0.2	0.1	0.6	0.5	0.0	1.0	1.4	0.5	4.4	1.5	-2.9**

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: The sample is restricted to the 461 CPC practices that responded to the 2012, 2014, and 2016 surveys. In 2012, we asked practices for the number of FTE in each staff type. In the later surveys, we asked for the number of full-time and part-time staff. We estimated that a part-time staff was equivalent to 0.5 FTE.

^a Practice size was determined using practice-provided rosters of the primary care physicians and NPs and PAs that bill under their own NPI. The roster files were collected in November 2012 and report the number of these clinicians at the practice site in October 2012, the first month of CPC.

^b The number of primary care clinicians includes primary care physicians, nurse practitioners, and physician assistants that can bill under their own NPI. Practices reported this information to CMS each month; the numbers for this analysis come from the roster files reported November of the corresponding year.

n.a. = not applicable because that staff type was not asked about in that survey; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

*/**/*** change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.17. Mean number of FTE staff per primary care clinician in all CPC practices and change over time, by baseline practice size^a

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Number of practices	461	461		71	71		156	156		109	109		93	93		32	32	
Primary care clinicians reported on annual roster files (Reference group)	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0
Physicians	0.92	n.a.	n.a.	1.40	n.a.	n.a.	0.85	n.a.	n.a.	0.85	n.a.	n.a.	0.76	n.a.	n.a.	0.92	n.a.	n.a.
Primary care physician (MD or DO) (2014)	0.70	0.59	-0.11***	0.93	0.81	-0.12*	0.68	0.57	-0.11***	0.70	0.56	-0.15***	0.61	0.51	-0.10***	0.53	0.50	-0.03
Specialty physician (2014)	0.05	0.04	-0.01	0.02	0.03	0.01	0.03	0.04	0.01	0.02	0.02	0.00	0.08	0.04	-0.04	0.21	0.13	-0.09
Nurse Practitioners and Physician Assistants (NPs and PAs)	0.23	n.a.	n.a.	0.37	n.a.	n.a.	0.23	n.a.	n.a.	0.16	n.a.	n.a.	0.19	n.a.	n.a.	0.19	n.a.	n.a.
NP/PA who can bill under own NPI (2014)	0.13	0.14	0.01	0.12	0.11	-0.01	0.13	0.15	0.03	0.10	0.13	0.03	0.16	0.13	-0.02	0.11	0.14	0.03
NP/PA who do not bill under own NPI (2014)	0.11	0.08	-0.03	0.31	0.17	-0.14	0.08	0.07	-0.01	0.06	0.04	-0.02	0.05	0.06	0.01	0.08	0.05	-0.03
RNs, excluding RN care managers	0.17	0.14	-0.03	0.24	0.27	0.03	0.16	0.09	-0.07**	0.11	0.11	-0.01	0.18	0.15	-0.04	0.21	0.15	-0.05
Nutritionists	0.01	0.02	0.01***	0.00	0.02	0.02	0.00	0.02	0.01**	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.02	0.00
Behavioral health, clinical psychologist, or social worker (2014)	0.03	0.04	0.01**	0.04	0.07	0.03	0.02	0.03	0.02*	0.02	0.03	0.01	0.04	0.05	0.01	0.05	0.06	0.01
Health educators	0.02	0.01	0.00	0.05	0.02	-0.03	0.00	0.02	0.02**	0.01	0.01	0.00	0.01	0.01	0.00	0.02	0.01	-0.01
Care managers/care coordinators who coordinate care for patients in the practice with other providers	0.09	0.23	0.14***	0.15	0.48	0.33***	0.10	0.22	0.12***	0.05	0.18	0.13***	0.07	0.15	0.09***	0.11	0.14	0.04
Community services coordinators who link patients in the practice with available services and resources in the community	0.01	0.01	-0.01	0.04	0.01	-0.04	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.02	0.02	-0.01
Medical assistants	1.13	0.80	-0.32***	1.91	0.98	-0.93***	1.02	0.80	-0.22**	1.07	0.83	-0.24***	0.83	0.66	-0.17**	0.97	0.76	-0.21
LPNs/LVNs	0.36	0.30	-0.06	0.52	0.49	-0.03	0.36	0.27	-0.09*	0.27	0.24	-0.04	0.37	0.29	-0.07	0.25	0.22	-0.03

Table D.17 (continued)

Staff type	All practices			1 clinician in 2012			2-3 clinicians in 2012			4-5 clinicians in 2012			6-10 clinicians in 2012			More than 10 clinicians in 2012		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Pharmacists	0.02	0.03	0.01	0.01	0.02	0.01	0.00	0.02	0.02***	0.01	0.02	0.01	0.03	0.03	0.00	0.09	0.07	-0.02
Administrative (reception, medical records, appointment, finance, etc)	1.70	n.a.	n.a.	2.77	n.a.	n.a.	1.47	n.a.	n.a.	1.46	n.a.	n.a.	1.52	n.a.	n.a.	1.74	n.a.	n.a.
Receptionist (2014)	0.76	0.68	-0.08**	1.10	1.07	-0.04	0.75	0.65	-0.10*	0.69	0.60	-0.08*	0.67	0.55	-0.12**	0.59	0.55	-0.05
Accountant or financial manager (2014)	0.02	0.04	0.01**	0.01	0.08	0.07**	0.02	0.04	0.01	0.02	0.02	0.00	0.02	0.02	-0.01	0.04	0.03	-0.01
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator (2014)	0.34	0.27	-0.07	0.44	0.51	0.07	0.24	0.17	-0.07	0.31	0.23	-0.08	0.34	0.27	-0.07	0.66	0.36	-0.30
Practice supervisor or practice manager (2014)	0.28	0.24	-0.04**	0.61	0.48	-0.13*	0.29	0.27	-0.03	0.23	0.17	-0.05**	0.14	0.12	-0.02*	0.09	0.09	0.00
Quality improvement specialists (2014)	0.02	0.02	0.00	0.03	0.01	-0.02	0.02	0.04	0.02	0.01	0.02	0.00	0.02	0.02	0.00	0.02	0.03	0.02
Physical or respiratory therapist (2014)	0.01	0.01	-0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	-0.01	0.06	0.03	-0.03
Lab or radiology technician (2014)	0.14	0.12	-0.02	0.13	0.13	0.00	0.09	0.07	-0.02	0.11	0.10	-0.01	0.17	0.13	-0.05	0.35	0.35	0.00
Health information technologist or EHR specialists (2014)	0.03	0.04	0.00	0.06	0.09	0.03	0.02	0.03	0.01	0.03	0.02	-0.01	0.03	0.02	-0.01	0.06	0.05	-0.01
Other (2014)	0.09	0.07	-0.02	0.05	0.03	-0.02	0.05	0.06	0.01	0.10	0.07	-0.02	0.12	0.11	-0.02	0.22	0.08	-0.14**

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: The sample is restricted to the 461 CPC practices that responded to the 2012, 2014, and 2016 surveys. In 2012, we asked practices for the number of FTE in each staff type. In the later surveys, we asked for the number of full-time and part-time staff. We estimated that a part-time staff was equivalent to 0.5 FTE. For the denominator of each ratio we used the number of FTE physicians reported in the November 2012, 2014, and 2016 clinician roster files to CMS; the numerator is the FTE staff reported by practices in the survey.

^a Practice size was determined using practice-provided rosters of the primary care physicians and NPs and PAs that bill under their own NPI. The roster files were collected in November 2012 and report the number of these clinicians at the practice site in October 2012, the first month of CPC.

^b The number of primary care clinicians includes primary care physicians, nurse practitioners, and physician assistants that can bill under their own NPI. Practices reported this information to CMS each month; the numbers for this analysis come from the roster files reported November of the corresponding year.

n.a. = not applicable because that staff type was not asked about in that survey; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

*/**/** change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.18. Percentage of CPC practices with different staff types, by system affiliation and mean HCC score of beneficiaries

Staff type	Practices' affiliation with a system						Mean 2012 HCC score among practices' attributed Medicare FFS beneficiaries					
	Is in a system			Is not in a system			Less than or equal to the sample median			Greater than the sample medium		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
Number of practices	172	172		289	289		231	231		230	230	
Primary care clinicians reported on annual roster files	100	100	0	100	100	0	100	100	0	100	100	0
Physicians	100	n.a.	n.a.	100	n.a.	n.a.	100	n.a.	n.a.	100	n.a.	n.a.
Primary care physician (MD or DO) (2014)	100	99	-1	99	99	0	100	99	-1	100	99	0
Specialty physician (2014)	13	12	-1	12	12	0	11	10	-1	14	14	1
Nurse Practitioners and Physician Assistants (NPs and PAs)	51	n.a.	n.a.	54	n.a.	n.a.	56	n.a.	n.a.	50	n.a.	n.a.
NP/PA who can bill under own NPI (2014)	53	57	4	39	45	6	46	49	4	43	50	7
NP/PA who do not bill under own NPI (2014)	12	16	4	26	21	-5	24	23	-2	18	16	-1
RNs, excluding RN care managers	31	43	12**	38	43	5	30	42	12***	40	44	4
Nutritionists	6	11	5*	3	15	12***	4	15	11***	4	12	7***
Behavioral health, clinical psychologist, or social worker (2014)	25	40	15***	15	23	8**	19	33	14***	19	26	7*
Health educators	6	6	1	3	11	8***	3	8	6***	6	10	4*
Care managers/care coordinators who coordinate care for patients in the practice with other providers	23	90	67***	24	80	56***	23	84	61***	25	83	59***
Community services coordinators who link patients in the practice with available services and resources in the community	3	8	5*	5	2	-2	3	4	0	5	5	0
Medical assistants	90	92	2	89	88	-1	92	93	0	87	86	0
LPNs/LVNs	46	57	11**	48	49	1	41	46	5	53	58	5
Pharmacists	16	25	8*	2	14	11***	3	14	11***	12	21	10***
Administrative (reception, medical records, appointment, finance, etc)	99	n.a.	n.a.	98	n.a.	n.a.	99	n.a.	n.a.	99	n.a.	n.a.
Receptionist (2014)	98	98	0	94	95	1	96	97	1	94	95	0

D.151

Table D.18 (continued)

Staff type	Practices' affiliation with a system						Mean 2012 HCC score among practices' attributed Medicare FFS beneficiaries					
	Is in a system			Is not in a system			Less than or equal to the sample median			Greater than the sample medium		
	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time	2012 (or 2014)	2016	Change over time
	Accountant or financial manager (2014)	11	15	4	14	19	5	15	17	2	11	18
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator (2014)	42	51	9*	57	54	-3	52	58	6	51	48	-2
Practice supervisor or practice manager (2014)	95	97	2	89	90	2	92	94	3	91	91	0
Quality improvement specialists (2014)	10	19	9**	12	17	5*	12	17	4	10	19	9***
Physical or respiratory therapist (2014)	4	2	-1	3	3	0	2	2	0	4	4	0
Lab or radiology technician (2014)	30	30	-1	32	35	3	38	40	1	24	27	3
Health information technologist or EHR specialists (2014)	14	15	1	17	19	2	17	15	-2	15	20	5
Other (2014)	26	29	3	18	18	0	19	21	2	22	23	1

Source: CPC practice surveys administered October through December 2012, April through July 2014, and April through August 2016.

Notes: Practices' affiliation with a system is from 2016 SK&A data. A practice's mean HCC score is based on the 2012 HCC scores of the practice's Medicare FFS beneficiaries. By design, system affiliation and HCC score is held constant.

n.a. = not applicable because that staff type was not asked about in that survey; HCC = hierarchical condition category; FFS = fee for service; MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

*/**/** change over time was statistically different from zero at the 0.10/0.05/0.01 level, two-tailed t-test.

Table D.19. Regression-adjusted percentage of CPC and comparison practices with different staff types, in 2016

Staff type	CPC practices	Comparison practices	p-value
Number of practices	461	358	
Physicians			
Primary care physician (MD or DO)	99	98	0.31
Specialty physician	12	18	0.03
Nurse Practitioners and Physician Assistants (NPs and PAs)			
NP/PA who can bill under own NPI	50	57	0.04
NP/PA who do not bill under own NPI	19	16	0.22
RNs, excluding RN care managers	43	40	0.35
Nutritionists	13	10	0.12
Behavioral health, clinical psychologist, or social worker	29	12	<.0001
Health educators	9	5	0.01
Care managers/care coordinators who coordinate care for patients in the practice with other providers	84	36	<.0001
Community services coordinators who link patients in the practice with available services and resources in the community	4	4	0.98
Medical assistants	90	87	0.24
LPNs/LVNs	52	49	0.33
Pharmacists	18	4	<.0001
Administrative (reception, medical records, appointment, finance, etc)			
Receptionist	96	92	0.03
Accountant or financial manager	17	19	0.68
Staff who work in billing, coding, administrative assistance, medical records, payroll, data entry or analysis, or network administrator	53	56	0.44
Practice supervisor or practice manager	93	87	0.00
Quality improvement specialists	18	12	0.01
Physical or respiratory therapist	3	9	0.00
Lab or radiology technician	33	38	0.16
Health information technologist or EHR specialists	18	11	0.00
Other	22	10	<.0001

Source: CPC practice surveys administered to CPC and comparison practices April through August 2016.

Notes: Regression models controlled for baseline (pre-CPC) practice characteristics (practice size, medical home recognition, whether the practice had one or more meaningful EHR users, whether the practice is multispecialty), baseline characteristics of the practices' county or census tract (whether practice is in a medically underserved area, Medicare Advantage penetration rate, percentage urban, and median household income) and whether the practice is part of a system based on 2016 SK&A data. We applied weights to comparison practices that were equal to the product of a matching weight (to ensure that the set of comparison practices matched to a given CPC practice had the same combined weight as that CPC practice) and a nonresponse weight to adjust for potential bias that can arise if survey nonresponse is not random.

MD = doctor of medicine; DO = doctor of osteopathic medicine; NPI = national provider identifier; RN = registered nurse; LPN = licensed practical nurse; LVN = licensed vocational nurse.

Table D.20. Characteristics of CPC practices with and without care managers in 2016

	CPC practices		
	All CPC practices	Practices that did not have a care manager in 2016	Practices that had at least one care manager in 2016
Number of practices	461	74	386
Baseline (2012) practice size ^a			
1 clinician	15	24	14
2-3 clinicians	34	45	32
4-5 clinicians	24	20	24
6-10 clinicians	20	8	23
10+ clinicians	7	3	8
Practices' affiliation with a system			
Is in a system	37	23	40
Is not in a system	63	77	60
Percentage of the practices' county that is urban	78	72	79

^a Practice size was determined using practice-provided rosters of the primary care physicians, nurse practitioners and physician assistants that bill under their own National Provider Identifier. The roster files were collected in November 2012 and report the number of these clinicians at the practice site in October 2012, the first month of CPC.

This page has been left blank for double-sided copying.

APPENDIX E:

CLINICIAN AND STAFF SURVEY METHODS AND DATA TABLES

This page has been left blank for double-sided copying.

This appendix describes the survey used to assess clinician and staff experience. It details survey fielding, including timing, mode, incentives; sampling and weighting; survey content; analytic methods including statistical estimation and testing procedures; and data tables.

A. Fielding details

Timing. Mathematica administered the first round of surveys to clinicians in CPC and comparison practices and staff in CPC practices from September 2013 through March 2014, 11 to 17 months after the start of CPC. We administered the second round toward the end of the initiative, from June through November 2016, or 44 to 50 months after CPC began.

Survey mode, length, incentives, and reminders. We conducted both the clinician and staff surveys, which we estimated would take 15 to 25 minutes to complete, by mail. The fielding process included three questionnaire mailings, three thank you/reminder postcard mailings, and as many as two telephone reminder calls. The second round also included two additional questionnaire mailings, email reminders for some clinicians, and one telephone reminder call. Participation in the surveys was voluntary. As an incentive, we enclosed a \$100 check in the initial mailing for the clinician survey (for both CPC and comparison clinicians) and \$20 for the staff survey (which was administered to CPC practices only). In the second round, we increased the staff incentive to \$25.

Sampling methods. Clinician survey. The sampling frame for the clinician survey included primary care clinicians (that is, primary care physicians, nurse practitioners, and physician assistants who bill for seeing patients) that SK&A identified as working at the practice sites.³ SK&A is a private company that maintains a database with contact and practice site information for more than 2.1 million health care providers in the United States. We matched each CPC practice to one or more comparison practices (Peikes et al. 2014).⁴ For primary care physicians, the sampling frame included licensed physicians—medical doctors (MDs) and doctors of osteopathy (DOs)—listed by SK&A as (1) working in a CPC or comparison practice site and (2) having one or more of the following primary care specialty designations (primary or secondary specialty code): general internal medicine, geriatrician, general practitioner, family practitioner, and general internal medicine/general pediatrics. We sampled only physicians with a national provider identifier (NPI) code.

Physicians were randomly selected within practices for the survey. In the first survey round, we attempted to survey all primary care physicians in CPC practices containing only one or two physicians and randomly selected (with equal probability) two primary care physicians from each CPC practice with three or more physicians. Comparison physicians were randomly selected, within matched sets. To select the physicians to survey within the matched sets of comparison practices, we first sorted the physicians by comparison practice within the matched set and then systematically sampled the primary care physicians with equal probability. We used

³ We also fielded the first round of the clinician survey to a small number of specialist physicians in the CPC practices. These surveys are not included in the results reported here. Although we also had a list of clinicians submitted to CMS from CPC practices that is likely more accurate, we used SK&A data to ensure a comparable frame for the CPC and comparison clinicians.

⁴ The CPC Design Report provides details about the selection of comparison practices.

this selection process to maximize the number of physicians represented in the comparison practices within the matched sets. The number of comparison physicians selected within each matched set of comparison practices was dependent on the number of CPC physicians selected. When possible, the number of sample units allocated to comparison physicians within each matched set was equal to the total number of CPC physicians selected within the set. For example, if a matched set had two CPC practices with two physicians selected from each practice, we would allocate four sample slots to the pool of physicians from the comparison practices in that set. However, some matched sets had fewer total eligible physicians within the comparison practices than the number of CPC physicians selected. In those cases—and when there was an equal number of eligible comparison physicians and selected CPC physicians—we selected all eligible comparison physicians with certainty. When there were more eligible comparison physicians than selected CPC physicians in a set, we selected the comparison physicians randomly. When there were multiple comparison practices for a given CPC practice, we constrained the selection of physicians to maximize the spread of selected physicians across practices. For CPC physicians, the survey design weights reflect the probability of selection within the practices. For comparison physicians, the sample design weights reflect comparison group matching, and within each matched set of comparison practices, the design weights sum to the weighted number of sampled CPC physicians in the matched set.

For the Round 2 survey, we selected a longitudinal sample of primary care physicians. We retained all physicians sampled in Round 1 who were still at each practice, and we replaced physicians who left the practices by randomly selecting from among physicians new to the practices or physicians present but not sampled in Round 1. As in Round 1, we selected physicians within CPC practices and across comparison practices but within matched sets. Design weights for CPC physicians reflected their cumulative probability of selection, and the design weights for comparison physicians summed to the weighted number of CPC physicians sampled within each matched set.

In addition to primary care physicians, the sampling frame also included nurse practitioners and physician assistants (NPs/PAs) who SK&A listed as working in the CPC or comparison practices with an NPI. Not all practices had NPs/PAs, and the proportion of CPC and comparison practices with NPs/PAs differed. Therefore, we used a different sampling approach for NPs/PAs than for physicians. For the Round 1 NP/PA sample, we used a simple random sampling method to select cases from the pool of all NPs/PAs in CPC practices and from the pool of NPs/PAs in comparison practices (without any stratification by practice). The survey design weights for the NP/PA sample drawn from CPC practices reflect the probability of selection within the total population of NPs/PAs working in the CPC practices. We used an analogous approach to construct the weights for the NPs/PAs drawn from the comparison practices.

In Round 2, we retained all NPs/PAs sampled in Round 1 who were still at the CPC and comparison practices, and replaced those sampled but no longer at the practices by randomly selecting among those new to the practices. The design weights reflected their cumulative probabilities of selection.

Staff survey. For the survey of staff in CPC practices, only staff who provided direct patient care or had direct contact with patients were eligible. The sampling frame was composed of staff included in staffing rosters provided to Mathematica by the CPC practices from October 2012 to

January 2013 for Round 1 and from February to April 2016 for Round 2. Staff titles eligible for the survey included registered nurses, licensed practical and vocational nurses, care managers and care coordinators, practice managers and practice supervisors, laboratory and radiology technicians, medical assistants, behavioral health and social workers, dietitians and nutritionists, health educators, pharmacists and pharmacy technicians, physical and respiratory therapists, quality improvement specialists, and receptionists. Staff who did not provide direct patient care, such as billing clerks, information technology staff, back office staff, and custodians were ineligible.

With CMS input, we created seven distinct staff position categories as the basis for sampling: (1) care manager and care coordinator, (2) medical assistant, (3) nurse (registered nurse or licensed practical or vocational nurse), (4) practice manager/supervisor, (5) laboratory and radiology staff, (6) receptionist and appointment clerk, and (7) other practice staff (including health educators, behavioral health and social workers, dietitians and nutritionists, pharmacists and pharmacy technicians, physical and respiratory therapists, and quality improvement specialists). When selecting the staff sample, we stratified by region, practice, and staff position category. Within regions, we proportionally sampled staff within each of these categories, with a minimum of one staff member sampled from every category present in each practice. To ensure adequate representation of two categories of staff that contained relatively few staff (case managers and care coordinators, and other practice staff⁵), we surveyed all staff in these two categories. This approach ensured that we collected data from all seven staff categories in the CPC practices. Of the seven staff position categories, the analysis focuses on five: (1) care manager and care coordinator, (2) medical assistant, (3) nurse, (4) practice manager/supervisor, and (5) receptionist and appointment clerk.

We used the same methodology to select a new cross-sectional sample of practice staff in the second round. We chose this approach rather than a longitudinal design for two reasons. First, we expected staff would have a higher turnover rate than would clinicians, making a longitudinal design less efficient as compared with clinicians. Second, without an NPI or other unique identifier, determining which staff were present in both rounds would have been time-consuming and potentially error prone. Therefore, design weights represent the probability of selection within each staff category within each practice for each round separately, not cumulatively.

Sample sizes and response rates. For the Round 1 clinician survey, there were 6,142 primary care clinicians in the CPC and comparison practices. We sent surveys to 1,991 potential primary care clinicians, including 1,581 primary care physicians and 410 NPs/PAs (see Table E.1).

For the CPC staff survey, from 5,771 staff members in the CPC practices, we selected a sample of 3,080 staff members to survey, including 104 care managers and care coordinators, 927 medical assistants, 548 nurses, 397 practice managers and supervisors, 184 laboratory and radiology staff, 838 receptionists and appointment clerks, and 82 other staff (see Table E.2).

⁵ We included pharmacists and pharmacy technicians, as well as physical and respiratory therapists, in the “other” staff category, but due to their large numbers, we sampled them proportionally (not at 100 percent).

In Round 2, from 6,278 primary care clinicians in CPC and comparison practices, we selected 2,105 primary care clinicians to survey, including 1,700 primary care physicians and 405 NPs/PAs. From 6,560 staff in CPC practices, we selected 3,108 staff members to survey, including 274 care managers and care coordinators, 848 medical assistants, 567 nurses, 370 practice managers and supervisors, 174 laboratory and radiology staff, 767 receptionists and appointment clerks, and 108 other staff. We do not report responses of laboratory and radiology staff and other staff.

Response rates were high for respondents in both rounds of data collection. In CPC practices, 81 percent and 76 percent of the sampled primary care physicians, located in 432 and 412 practices, responded in Rounds 1 and 2, respectively; 85 and 83 percent of sampled NPs and PAs responded in Rounds 1 and 2; and between 73 and 85 percent of surveyed staff we include in the results responded, depending on the staff type and round (Tables E.1 and E.2). For comparison practices, only primary care physicians and NPs/PAs were surveyed. Response rates were 70 percent and 72 percent in Rounds 1 and 2, located in 330 and 349 practices, respectively, for primary care physicians surveyed from comparison practices; and 66 percent and 73 percent in Rounds 1 and 2 for NPs and PAs surveyed from comparison practices.

Table E.1. Sample sizes and weighted survey response rates for the primary care clinician survey, by round

Sample type	Round 1				Round 2			
	Population size	Number sent surveys	Number responded	Response rate (percentage) ^a	Population size	Number sent surveys	Number responded	Response rate (percentage) ^a
Primary care physicians	4,944	1,581	1,082	75	4,658	1,700	1,124	74
CPC practices	1,831	867	635	81	1,677	912	630	76
Comparison practices	3,113	714	447	70	2,981	788	494	72
Primary care practices	1,397	957	762	n.a.	1,305	966	761	n.a.
CPC practices	495	495	432	n.a.	480	480	412	n.a.
Comparison practices	902	462	330	n.a.	825	486	349	n.a.
NPs/PAs	1,198	410	255	72	1,620	405	262	76
CPC practices	421	226	151	85	527	222	159	83
Comparison practices	777	184	104	66	1,093	183	103	73
All clinicians	6,142	1,991	1,337	75	6,278	2,105	1,386	75
CPC practices	2,252	1,093	786	81	2,204	1,134	789	77
Comparison practices	3,890	898	551	69	4,074	971	597	72

^a Responses rates were weighted using the sample design weights. Ineligible cases are excluded.

n.a. = not applicable

Table E.2. Sample sizes and weighted survey response rates for the practice staff survey, by round

Staff category	Round 1				Round 2			
	Population size	Number sent surveys	Number responded	Response rate (percentage) ^a	Population size	Number sent surveys	Number responded	Response rate (percentage) ^a
CPC staff	5,771	3,080	1,791	74	6,560	3,108	2,143	79
Care manager/care coordinator	104	104	63	82	274	274	208	85
Medical assistant	1,889	927	525	74	2,080	848	572	76
Nurse	1,059	548	325	75	1,320	567	419	83
Practice manager/supervisor	559	397	271	81	552	370	276	78
Laboratory/radiology staff ^b	383	184	117	72	458	174	130	89
Receptionist/appointment clerk	1,638	838	490	73	1,722	767	538	78
Other staff ^c	139	82	46	57	154	108	79	74

^a Responses rates were weighted using the sample design weights. Ineligible cases are excluded.

^b We do not include laboratory/radiology staff and other staff in the results.

^c This category includes health educators, behavioral health and social workers, dietitians and nutritionists, pharmacists and pharmacy technicians, physical and respiratory therapists, and quality improvement specialists.

Survey nonresponse adjustment. To account for survey nonresponse, we calculated and applied inverse probability weights of survey response. To calculate this nonresponse adjustment, we estimated logistic regression models, using a subset of the variables previously used when selecting the comparison group to predict response.⁶ We used backward elimination and forward selection techniques to select only the matching variables that were related to response, and we included an indicator variable for each region in the models. See Table E.3 for the list of characteristics used in the nonresponse adjustments. Higher weights indicate that a response has a larger influence on the averages and percentages displayed in the results. We used this procedure to calculate the survey nonresponse weights for respondents in both clinician groups (physicians and NPs/PAs) as well as for the practice staff. All results (except the number of respondents) incorporate weights that multiply the survey design weights and survey nonresponse weights. Table E.4 shows the weighted distribution of characteristics for physician respondents.

⁶ When the number of nonrespondents was small, we used ratio adjustments calculated within region instead, as regression models can be unstable with small sample sizes.

Table E.3. Characteristics used in nonresponse adjustments, by sample and round

	Physicians		Nurse practitioners/ physician assistants		Practice staff	
	Round 1	Round 2	Round 1	Round 2	Round 1	Round 2
Characteristics of physician						
Present and sampled in Round 1		X				
Characteristics of respondent's practice						
CPC region		X		X		X
Number of all clinicians ^a	X		X		X	X
Had Medicare meaningful electronic health record user (June 2012) ^b	X	X	X		X	X
Owned by larger organization ^a	X	X	X	X	X	X
Is state- or NCQA-recognized medical home (fall 2012) ^c	X		X		X	X
Number of attributed Medicare beneficiaries from May 2010 to April 2012 ^d		X			X	
Percentage of practice's clinicians with primary care specialty ^a					X	X
Availability of registries on individual patients ^e						X
Availability of comprehensive, evidence-based guidelines on prevention or chronic illness treatment ^e						X
Availability of clinical care management services for high-risk patients ^e						X
Level of formalization of referral relationships with medical and surgical specialists ^e						X
Frequency of follow-up by the primary care practice with patients seen in the emergency room ^e						X
Types of practice organization ^e						X
Types of organizations with which practice is affiliated ^e						X
Who employs the non-physician staff in the practice ^e						X
Characteristics of practice's county						
Medicare Advantage penetration rate (2009) ^f		X		X	X	X
Median household income in county (2009) ^f	X		X		X	X
Percentage of county that is urban (2009) ^f	X		X	X	X	
Located in a medically underserved area (2009) ^g	X				X	X
Characteristics of practice's attributed Medicare beneficiaries from May 2010 to April 2012^d						
Percentage dually eligible for Medicaid		X	X		X	

Table E.3 (continued)

	Physicians		Nurse practitioners/ physician assistants		Practice staff	
	Round 1	Round 2	Round 1	Round 2	Round 1	Round 2
Percentage male	X	X	X		X	
Percentage age 0 to 49	X	X	X		X	
Percentage age 50 to 64			X		X	
Percentage age 65 to 74	X				X	
Percentage age 75 to 84	X		X		X	
Percentage age 85 and older						
Percentage Asian			X		X	
Percentage Black	X		X		X	
Percentage White			X		X	X
Percentage Hispanic	X		X		X	
Percentage other race	X				X	
Percentage unknown race	X		X		X	
Percentage originally entitled to Medicare due to age	X		X		X	
Percentage with diabetes					X	X
Percentage with cancer	X		X		X	
Percentage with COPD	X		X		X	
Percentage with chronic kidney disease	X				X	X
Percentage with Alzheimer's-related diseases	X		X		X	
Percentage with heart failure	X				X	
Selected HCC score deciles at the practice			X		X	
Mean HCC score	X		X		X	
Selected deciles of number of physician visits among beneficiaries at practice	X	X	X	X	X	X
Selected deciles of number of hospitalizations among Medicare beneficiaries at practice	X		X		X	X
Selected deciles of emergency department visits at practice	X	X	X		X	
Baseline mean Medicare care expenditures			X		X	
Selected deciles of Medicare expenditures	X		X		X	X

^a 2012 SK&A data.

^b June 2012 CMS meaningful electronic health user data.

^c 2012 National Committee for Quality Assurance, CPC application data, and Oklahoma Sooner Care data.

^d Medicare claims data, May 2010 through April 2012.

^e 2016 CPC Practice Survey.

^f 2009 Area Resource File.

^g 2009 Health Resources and Services Administration data.

COPD = chronic obstructive pulmonary disease; HCC = Hierarchical Condition Category.

Table E.4. Characteristics of physician respondents after weighting

	Primary care physician					
	2013-2014			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Physician characteristics reported in the survey						
Male (%)	60	68	0.04	62	68	0.13
N	628	441		628	491	
Respondent's current age (%)			0.38			0.52
Fewer than 20 years	0	0		0	0	
20–29	0	0		0	0	
30–39	18	13		15	19	
40–49	30	29		28	27	
50–59	32	37		29	24	
60 years or older	21	21		28	29	
N	627	441		628	490	
Hispanic or Latino (%)	2	2	0.57	2	2	0.79
N	624	440		624	486	
Respondent's race (%)						
White/Caucasian	90	88	0.47	86	86	0.77
Black or African American	1	1	0.18	2	2	0.90
Asian	8	10	0.42	10	10	0.75
Native Hawaiian or other Pacific Islander	0	0	0.09	1	0	0.53
American Indian or Alaska Native	1	1	0.19	2	0	0.0
Other	1	2	0.13	2	4	0.11
N	624	438		623	486	
How long respondent has worked at the practice (%)						
Fewer than 6 months	0	1	0.26	0	0	0.47
6 months to 1 year	1	0		2	5	
More than 1 year to 2 years	7	3		5	6	
More than 2 years to 5 years	14	14		13	14	
More than 5 years to 10 years	19	19		19	18	
More than 10 years	59	62		59	56	
N	625	441		623	487	

Note: We adjusted all results for the probability of selection into the sample, comparison group matching, and survey nonresponse.

Question (item) nonresponse. Survey respondents are not required to answer each question in the survey. Across all questions in the survey, the rate of question nonresponse among survey respondents varied from 0 to 11 percent, with 75 percent of questions having a rate of nonresponse that is lower than 5 percent. Due to this low rate, we do not adjust for question nonresponse and instead calculate results only among question respondents, weighted by survey nonresponse weights described previously. For each question with the option “don’t know or does not apply,” we report the estimated rate of this response (also adjusted for survey design and nonresponse weights).

B. Survey content

The CPC clinician and staff surveys contained 189 items in round 1 and 239 items in Round 2. We organized these items into seven sections for respondents:

1. Care management (8 items in Round 1; 9 items in Round 2)
2. Care team (18 items in Round 1; 19 items in Round 2)
3. Practice characteristics and work environment (62 items in Round 1; 80 items in Round 2)
4. Work functions and perceptions (41 items in Round 1; 38 items in Round 2)
5. Use of electronic health records (19 items in Round 1; 15 items in Round 2)
6. Feedback reports (12 items)
7. Demographics (13 items)

In Round 2, we added two additional sections: services offered (12 items) and participation in CPC (25 items).

We assembled the questions from two sets of sources:

1. Validated scales on relevant domains from questionnaires used in other initiatives, including:
 - The Safety Net Medical Home Initiative Provider and Staff Experience Survey (care management scale; Lewis et al. 2012)
 - The UCLA Veterans Administration Patient-Aligned Care Team (PACT) Demonstration Staff Survey (Rodriguez et al. 2014)
 - The Veterans Administration PACT National Evaluation Personnel Survey (Helfrich et al. 2014)
 - The Survey of Organizational Attributes of Primary Care (SOAPC) (Ohman-Strickland et al. 2007)
 - A modified version of the Agency for Healthcare Research and Quality (AHRQ) TeamSTEPPS Teamwork Perceptions Questionnaire (Battle and King 2010)
 - The TransforMED Staff and Clinician Questionnaire (Jaén et al. 2010) (adaptive reserve scale, shortened per the National Demonstration Project of the Patient-centered Medical Home) (Jaén et al. 2010)
 - The Reciprocal Learning survey (Leykum et al. 2011)
 - A modified version of the AHRQ Minimizing Errors and Maximizing Outcomes (MEMO) survey (control of work scale; Linzer et al. 2005)
 - The Federally Qualified Health Center Advanced Primary Practice Provider and Staff Survey developed by the RAND Corporation
 - A nine-item version of the Maslach Burnout Inventory (Maslach et al. 1996) used in the PACT Evaluation (Helfrich et al. 2014)

- The National Ambulatory Medicare Care Physician Survey (round 2 only; Division of Health Care Statistics 2012)
2. New questions written and pretested by the evaluation team in consultation with CMS evaluation and operations staff. To better fit the context of CPC and with input from CMS staff, we modified some questions and scales in the surveys listed above.

Table E.5 lists each survey question and its source.

Table E.5. Questions in the CPC clinician and staff surveys, sources, and location in the data tables

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Services offered at your practice					
-	A1	Are the following services provided for your patients on-site, at your office?	NAMCS	Yes	
-	A1a	Nutrition counseling	NAMCS	No	
-	A1b	Immunizations	NAMCS	No	
-	A1c	Cervical cancer screening (e.g., Pap tests)	MPR	NA	
-	A1d	Counseling for behavior or mental health problems	NAMCS	No	
-	A1e	Treatment of a minor laceration	NAMCS	No	
-	A2	If a patient presents with any of the following conditions, how likely are you to manage the patient's condition yourself, rather than immediately referring the patient to a specialist?	NAMCS	Yes	A.6. Comprehensive-ness of care
-	A2a	New onset low back pain	NAMCS	Yes	
-	A2b	Amenorrhea	NAMCS	Yes	
-	A2c	Depression symptoms	NAMCS	Yes	
-	A2d	Diabetes symptoms	NAMCS	Yes	
-	A2e	Sore throat symptoms	NAMCS	Yes	
-	A2f	A chronic respiratory problem (such as COPD)	MPR	NA	
-	A3	For your patients who are admitted to the hospital, how likely are you or someone from your practice to be actively involved with the patients' care during their hospital stay?	MPR	NA	
Care management					
A1	B1	Please state how much you agree or disagree with the following statements:	SNMHI	Yes	
A1a	B1a	This practice can easily identify patients with a particular disease.	SNMHI	Yes	
A1b	B1b	This practice has good systems in place to track test results and follow up with patients about the results	SNMHI	Yes	
A1c	B1c	This practice has a good system for identifying patients at high risk for poor outcomes	SNMHI	Yes	
A1d	B1d	This practice intensifies services for patients at high risk for poor outcomes	SNMHI	Yes	
A1e	B1e	This practice individualizes services to different people with different needs	SNMHI	Yes	A.1. Care management for high-risk patients (Milestone 2)
A1f	B1f	This practice is effective in helping patients self-manage their chronic illness	SNMHI	Yes	
A1g	B1g	Patient care is coordinated well among physicians, nurses, and practice staff within this practice	SNMHI	Yes	
A1h	B1h	This practice effectively utilizes community resources to help meet the health care needs of our patients	SNMHI	Yes	
-	B2	Of your patients who are high-risk or who have a chronic illness, how many receive a paper or electronic copy of their care plan that includes self-management goals, clinical management goals, and steps to reach these goals? (A care plan differs from a visit summary.)	2016 CPC Practice Survey	Yes	
Your care team					
B1	C1	In a typical week at your practice, how often do the following types of clinicians and staff act as members of your team?	FQHC; PACT	Yes	
B1a	C1a	Primary care physicians (MD or DO)	FQHC; PACT	Yes	
B1b	C1b	Nurse practitioners (NP)	FQHC; PACT	Yes	A.8. Care team composition
B1c	C1c	Physician assistants (PA)	FQHC; PACT	Yes	
B1d	C1d	Registered nurses (RN)	FQHC; PACT	Yes	
B1e	C1e	Licensed practical nurses (LPN) or vocational nurses (LVN)	FQHC; PACT	Yes	
B1f	C1f	Medical assistants	FQHC; PACT	FQHC: No PACT: Yes	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables	
Your care team (continued)						
B1g	C1g	Practice supervisors or practice managers	MPR	NA	A.8. Care team composition	
B1h	C1h	Laboratory or radiology technicians	MPR	NA		
B1i	C1i	Dietitians or nutritionists	FQHC; PACT	Yes		
B1j	C1j	Pharmacists or pharmacy technicians	FQHC; PACT	Yes		
B1k	C1k	Behavioral health, clinical psychologists, or social workers	PACT	Yes		
B1l	C1l	Physical or respiratory therapists	MPR	NA		
B1m	C1m	Health educators	FQHC; PACT	FQHC: No PACT: Yes		
B1n	C1n	Care managers or care coordinators	PACT	Yes		
B1o	C1o	Quality improvement (QI) specialists	MPR	NA		
B1p	C1p	Community service coordinators	MPR	NA		
B1q	C1q	Receptionists	MPR	NA		
B1r	C1r	Other (specify)	FQHC; PACT	No		
Your practice and work environment						
-	D1	Who owns this practice?	2016 CPC Practice Survey	No		E.2. Practice characteristics
-	D1_1	Clinicians in the practice or group	2016 CPC Practice Survey	Yes		
-	D1_2	A hospital, health system, medical school, or university	2016 CPC Practice Survey	Yes		
-	D1_3	Other (specify)	2016 CPC Practice Survey			
-	D2	Does this practice site participate in any of the following initiatives, demonstrations, or pilot programs, and if so, how long has it participated?	2016 CPC Practice Survey	Yes		
-	D2a	The Physician Quality Reporting System (PQRS)	2016 CPC Practice Survey	No		
-	D2b	Health Care Innovation Awards (sponsored by CMS)	2016 CPC Practice Survey	No		
-	D2c	Medicare Shared Savings Program (also known as the Medicare ACO program)	2016 CPC Practice Survey	No		
-	D2d	Independence at Home	2016 CPC Practice Survey	No		
-	D2e	Pioneer ACO	2016 CPC Practice Survey	No		
-	D2f	Meaningful Use/EHR Incentive	2016 CPC Practice Survey	No		
-	D2g	Medicaid Health Home	2016 CPC Practice Survey	No		
-	D2h	A federally sponsored shared savings initiative (specify)	2016 CPC Practice Survey	No		
-	D2i	A state or community based quality measures reporting program	2016 CPC Practice Survey	No		
-	D2j	A state or regional health information exchange	2016 CPC Practice Survey	No		
-	D2k	A purchaser sponsored program linking payment to performance or value (such as a bonus payment from an insurer for quality) (specify)	2016 CPC Practice Survey	No		
-	D2l	A consortium or collaborative working on quality improvement (for example, Institute for Healthcare Improvement collaborative or EHR users' group) (specify)	2016 CPC Practice Survey	No		
-	D3	Please indicate if the practice currently has recognition as a "medical home" from any of the following:	2016 CPC Practice Survey	Yes		
-	D3_1	National Committee for Quality Assurance (NCQA-PCMH); specify recognition level received (1, 2, or 3)	2016 CPC Practice Survey	No		
-	D3_2	The Joint Commission (TJC), previously known as Joint Commission on Accreditation of Healthcare Organizations (JCAHO)	2016 CPC Practice Survey	No		
-	D3_3	Accreditation Association for Ambulatory Healthcare (AAAH-Triple A)	2016 CPC Practice Survey	No		
-	D3_4	Utilization Review Accreditation Commission (URAC); specify recognition level received	2016 CPC Practice Survey	No		
-	D3_5	State-based recognition program; specify recognition level received	2016 CPC Practice Survey	No		
-	D3_6	Insurance plan-based recognition program	2016 CPC Practice Survey	No		
-	D3_7	Other (specify)	2016 CPC Practice Survey	No		

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Your practice and work environment (continued)					
-	D3_8	Does not have recognition as a "medical home"	2016 CPC Practice Survey	No	E.2. Practice characteristics
-	D3_d	Don't know	2016 CPC Practice Survey	Yes	
C1	D4	This question is about the relationships you have with staff in your practice. Please indicate how much you agree or disagree with the following statements:	PACT; SOAPC	PACT: Yes SOAPC: DK ^a	B.1. Physicians' assessments of primary care team functioning
C1a	D4a	When there is a conflict, the people involved usually talk it out and resolve the problem successfully	PACT; SOAPC	PACT: No SOAPC: Yes	
C1b	D4b	Our staff has constructive work relationships	PACT; SOAPC	PACT: Yes SOAPC: No	
C1c	D4c	There is often tension among the people I work with	PACT; SOAPC	PACT: No SOAPC: Yes	
C1d	D4d	Staff members and clinicians I work with operate as a real team	PACT; SOAPC	Yes	
C1e	D4e	This practice encourages staff and clinicians to give input for making changes and improvements	PACT; SOAPC	Yes	
C1f	D4f	All of the staff and clinicians participate in important decisions about clinical operations (e.g., workflow)	PACT; SOAPC	Yes	
C1g	D4g	Practice leadership discourages nursing staff from taking initiative in direct patient care	PACT; SOAPC	Yes	
C1h	D4h	This practice defines success as teamwork and concern for people	PACT; SOAPC	Yes	
C1i	D4i	Staff and clinicians are involved in developing plans for improving quality	PACT; SOAPC	Yes	
C1j	D4j	It's hard to make any changes because we are so busy seeing patients	PACT; SOAPC	PACT: No SOAPC: Yes	
C1k	D4k	Staff and clinicians very frequently feel overwhelmed by the work demands	PACT; SOAPC	Yes	
C1l	D4l	It is stressful to work in this practice	PACT; SOAPC	Yes	B.1. Physicians' assessments of primary care team functioning
C1m	D4m	This practice is almost always in chaos	PACT; SOAPC	PACT: Yes SOAPC: No	
C1n	D4n	Things have been changing so fast in this practice that it is hard to keep up with what is going on	PACT; SOAPC	Yes	B.1. and A.3. Use of data to guide quality improvement (Milestone 5)
C1o	D4o	During the past 12 months, this practice has changed how it takes initiative to improve patient care	PACT; SOAPC	Yes	
C1p	D4p	During the past 12 months, this practice has changed how it does business	PACT; SOAPC	Yes	
C1q	D4q	During the past 12 months, this practice has changed how everyone relates	PACT; SOAPC	Yes	B.1. Physicians' assessments of primary care team functioning
C2	D5	Please indicate how much you agree or disagree with the following statements about your practice.	FQHC APCP; T-TPQ	FQHC: No T-TPQ: Yes	B.2. The Teamwork Perceptions Questionnaire
C2a	D5a	The skills of staff overlap sufficiently so that work can be shared when necessary	FQHC APCP; T-TPQ	No	
C2b	D5b	Staff are held accountable for their actions	FQHC APCP; T-TPQ	No	
C2c	D5c	This practice makes efficient use of resources (e.g., staff supplies, equipment, information)	FQHC APCP; T-TPQ	Yes	
C2d	D5d	Staff understand their roles and responsibilities	FQHC APCP; T-TPQ	No	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Your practice and work environment (continued)					
C2e	D5e	This practice has clearly articulated goals	FQHC APCP; T-TPQ	Yes	B.2. and A.3. Use of data to guide quality improvement (Milestone 5)
C2f	D5f	This practice operates at a high level of efficiency	FQHC APCP; T-TPQ	Yes	B.2. and A.3. Use of data to guide quality improvement (Milestone 5)
C2g	D5g	Staff effectively anticipate each other's needs	FQHC APCP; T-TPQ	No	B.2. The Teamwork Perceptions Questionnaire
C2h	D5h	Staff monitor each other's performance	FQHC APCP; T-TPQ	No	B.2. and A.3. Use of data to guide quality improvement (Milestone 5)
C2i	D5i	Staff exchange relevant information as it becomes available	FQHC APCP; T-TPQ	No	B.2. and A.3. Use of data to guide quality improvement (Milestone 5)
C2j	D5j	Staff members frequently meet to re-evaluate patient care goals	FQHC APCP; T-TPQ	FQHC APCP: No T-TPQ: Yes	B.2. The Teamwork Perceptions Questionnaire
C2k	D5k	Staff correct each other's mistakes	FQHC APCP; T-TPQ	FQHC APCP: No T-TPQ: Yes	B.2. and A.3. Use of data to guide quality improvement (Milestone 5)
C3	D6	Please indicate how much you agree or disagree with the following statements about your practice:	FQHC APCP; CSQ	FQHC: No CSQ: Yes	B.3. Adaptive Reserve
C3a	D6a	People in this practice actively seek new ways to improve how we do things	FQHC APCP; CSQ	Yes	B.3. and A.3. Use of data to guide quality improvement (Milestone 5)
C3b	D6b	People at all levels of this practice openly talk about what is and isn't working	FQHC APCP; CSQ	FQHC APCP: No CSQ: Yes	B.3. Adaptive Reserve
C3c	D6c	After trying something new, we take time to think about how it worked	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3d	D6d	Practice leadership promotes an environment that is an enjoyable place to work	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3e	D6e	Leadership in this practice creates an environment where things can be accomplished	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3f	D6f	Leadership strongly supports practice change efforts	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3g	D6g	When we experience a problem in this practice, we make a serious effort to figure out what's really going on	FQHC APCP; CSQ	Yes	B.3. and A.3. Use of data to guide quality improvement (Milestone 5)
C3h	D6h	I have many opportunities to grow in my work	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3i	D6i	People in this practice operate as a real team	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3j	D6j	Most of the people who work in this practice seem to enjoy their work	FQHC APCP; CSQ	Yes	B.3. Adaptive Reserve
C3k	D6k	This practice is a place of joy and hope	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3l	D6l	Mistakes have led to positive changes here	FQHC APCP; CSQ	No	B.3. Adaptive Reserve
C3m	D6m	It is hard to get things to change in this practice	FQHC APCP; CSQ	Yes	B.3. Adaptive Reserve
C3n	D6n	This practice learns from its mistakes	FQHC APCP; CSQ	No	B.3. Adaptive Reserve

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Your practice and work environment (continued)					
C4	D7	Please indicate how much you agree or disagree with the following statements about learning within your practice:	Reciprocal Learning Scale	DK ^b	
C4a	D7a	I am frequently taught new things by other people in this practice	Reciprocal Learning Scale	Yes	A.3. Use of data to guide quality improvement (Milestone 5)
C4b	D7b	I learn a lot about how to do my job by talking with people in this practice	Reciprocal Learning Scale	Yes	
C4c	D7c	When we have a problem in this practice, we tend to examine it carefully so that we can come to an understanding of the problem and why it occurred	Reciprocal Learning Scale	Yes	
C4d	D7d	In this practice, we frequently learn about new things together as a group	Reciprocal Learning Scale	Yes	
C4e	D7e	I learn how to do things in this practice by sharing knowledge with team members	Reciprocal Learning Scale	Yes	
C5	D8	How much, if at all, does each of the following factors limit your ability to provide optimal patient-centered care for your patients?	PACT	No	
C5a	D8a	Lack of available specialists for patient referrals	PACT	Yes	A.4. Care coordination across the medical neighborhood (Milestone 6)
C5b	D8b	Lack of local community resources for patient referrals (e.g., health education services, family counseling, etc.)	MPR	NA	
-	D8c	Lack of timely information regarding patient care from providers outside the practice	MPR	NA	
C5c	D8d	Challenges in communicating with specialists in or outside the practice	PACT	Yes	Not in table
C5d	-	Lack of control over my schedule	PACT	No	
C5e	D8e	Inadequate time for patient counseling or education	PACT	Yes	
C5f	D8f	Administrative tasks unrelated to direct patient care	MPR	NA	
C5g	D8k	Inadequate financial incentives from payers	MPR	NA	
C5h	D8g	Limited time to connect patients to local community resources (e.g., health education services, family counseling, etc.)	MPR	NA	A.7. Barriers to providing patient-centered care
C5i	D8h	Low levels of engagement from patients	MPR	NA	
C5j	D8i	Insufficient number or type of staff employed at the practice	MPR	NA	
C5k	D8j	Challenges with electronic health records (EHRs)	MPR	NA	
-	D8l	Inadequate financial incentives from my practice	MPR	NA	
-	D9	What percentage of your total compensation is based on the following ways clinicians are paid? Please provide your best estimate. Enter "0" if a category does not apply. Your percentage of total compensation should sum to 100 percent.	NAMCS	Yes	
-	D9a	Guaranteed or "base" salary (not directly tied to your productivity or clinical performance)	NAMCS	No	E.1. Clinician and staff characteristics
-	D9b	Your own individual productivity (e.g., cash collection, bNAMillings, relative value units, visits)	NAMCS	No	
-	D9c	Your own management of health care resources for your patients as compared with other physicians	NAMCS	No	
-	D9d	Performance on measures of your patients' satisfaction with the care you provide (e.g., results of patient satisfaction surveys)	NAMCS	No	
-	D9e	Performance on measures of the quality of care you provide to your patients (e.g., measures of adherence to guidelines, complication rates, quality review by peers)	NAMCS	No	
-	D9f	Some share of your medical organization's net revenue	NAMCS	No	
-	D9g	Other payments (please describe)	NAMCS	Yes	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Work functions and perceptions (continued)					
C6	-	To what degree do the following statements reflect the conditions in your practice? We define clinicians as physicians, nurse practitioners, and physician assistants.	FQHC APCP; MEMO	FQHC: Yes MEMO: Yes	
C6a	-	There is broad involvement of clinicians in most financial decisions	FQHC APCP; MEMO	FQHC: No MEMO: Yes	
C6b	-	Our clinician compensation formula is well aligned with our practice's goals	FQHC APCP; MEMO	Yes	
C6c	-	Our compensation plan rewards those who work hard for our practice	FQHC APCP; MEMO	FQHC: No MEMO: Yes	
C6d	-	Our clinician compensation formula is well understood by our clinicians	FQHC APCP; MEMO	FQHC: No MEMO: Yes	Not in tables
D1	-	Please estimate the AVERAGE time currently allocated to you at your practice and the amount of time you feel would be needed to provide high-quality care for patients for each of the following types of visits.	FQHC APCP; MEMO	FQHC: Yes MEMO: DK ^c	
D1a	-	Complete physical for a new patient	FQHC APCP; MEMO	FQHC: Yes MEMO: DK ^c	
D1b	-	Routine follow-up for an established patient	FQHC APCP; MEMO	FQHC: Yes MEMO: DK ^c	
D1c	-	Urgent care visits	FQHC APCP	Yes	
D2	E1	In a typical week at your practice, how often do you do the following activities?	FQHC APCP	Yes	
D2a	E1a	Participate in activities focused on quality improvement at this practice	SNMHI	Yes	A.3. Use of data to guide quality improvement (Milestone 5)
D2b	E1b	Counsel patients on how they can care for their health or health conditions at home (e.g., diet, exercise, medication, smoking cessation, etc.)	FQHC APCP	Yes	A.1. Care management for high-risk patients (Milestone 2)
D2c	E1c	Connect patients with community resources to help manage their health conditions (e.g., self-help programs, Meals on Wheels, etc.)	MPR	NA	
D2d	E1d	Assist patients in accessing health care services from other providers (e.g., providing referrals, obtaining prior authorizations from insurance providers, etc.)	MPR	NA	A.4. Care coordination across the medical neighborhood (Milestone 6)
D2e	E1e	Initiate contact with patients to discuss test results	MPR	NA	A.1. Care management for high-risk patients (Milestone 2)
D2f	E1f	Respond to patient phone calls to discuss their health issues	FQHC APCP	Yes	
D2g	E1g	Initiate phone calls with patients to discuss their health issues	FQHC APCP	Yes	A.2. Access to care (Milestone 3)
D2h	E1h	Read electronic communications (e.g., secure email) from patients	MPR	NA	
D2i	E1i	Respond to electronic communications from patients to discuss their health issues	MPR	NA	
D2j	E1j	Reconcile patient medications before or after visits	MPR	NA	A.1. Care management for high-risk patients (Milestone 2)
D2k	E1k	Communicate with other health care providers within this practice to obtain their professional opinion about your patients' health issues	MPR	NA	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Work functions and perceptions (continued)					
D2l	E1l	Communicate with other health care providers outside this practice to obtain their professional opinion about your patients' health issues	MPR	NA	A.4. Care coordination across the medical neighborhood (Milestone 6)
D2m	E1m	Meet with care coordinators/care managers at this practice to discuss care of high-risk patients	MPR	NA	A.1. Care management for high-risk patients (Milestone 2)
D2n	E1n	Meet with clinicians at this practice to discuss care of high-risk patients	MPR	NA	
D3	E2	What proportion of your time each week do you typically spend doing the following?	PACT	No	
D3a	E2a	Work that could be done by someone with less training	PACT	No	
D3b	E2b	Work for which you do not have enough training	PACT	No	
D3c	E2c	Work that is well-matched to your training	PACT	No	
D4	E3	In your practice setting, how much control do you have over the following?	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	
D4a	E3a	The hours you work	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	
D4b	E3b	Details of your office or practice schedule	FQHC APCP; MEMO	FQHC: Yes MEMO: DK ^c	
D4c	E3c	The volume of "paperwork" you have to do (on paper or electronic)	FQHC APCP; MEMO	FQHC: No	
D4d	E3d	Work interruptions (e.g., telephone calls, unscheduled patients)	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	
D4e	E3e	Workplace issues (e.g., office space, facilities, supplies)	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	
D4f	E3f	The pace of your work	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	C. Effects on physician and staff burnout and work satisfaction
D4g	E3g	The allotment of additional time for difficult-to-help patients	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	
D5	E4	Please indicate how much you agree or disagree with the following statement: Overall, I am satisfied with my current job.	FQHC APCP; MEMO	FQHC: No MEMO: DK ^c	
D6	E5	For each of the following statements, please indicate how often you felt this way about your job in the past year:	MBI-HSS	Yes	
D6a	E5a	I deal very effectively with the problems of my patients	MBI-HSS	Yes	
D6b	E5b	I treat some patients as if they were impersonal objects	MBI-HSS	Yes	
D6c	E5c	I feel emotionally drained from my work	MBI-HSS	No	
D6d	E5d	I feel fatigued when I get up in the morning and have to face another day on the job	MBI-HSS	No	
D6e	E5e	I've become more callous toward people since I took this job	MBI-HSS	No	
D6f	E5f	I'm positively influencing other people's lives through my work	MBI-HSS	No	
D6g	E5g	Working with people all day is really a strain for me	MBI-HSS	No	
D6h	E5h	I don't care what happens to some patients	MBI-HSS	Yes	
D6i	E5i	I feel exhilarated after working closely with my patients	MBI-HSS	Yes	
D6j	E5j	I feel burned out from my work	MBI-HSS	No	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
Work functions and perceptions (continued)					
D7	E6	Using your own definition of “burnout,” please indicate which statement best describes your situation at work: I enjoy my work. I have no symptoms of burnout. Occasionally I am under stress, and I don’t always have as much energy as I once did, but I don’t feel burned out. I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion. The symptoms of burnout that I’m experiencing won’t go away. I think about frustrations at work a lot. I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.	FQHC ACP; Freeborn	FQHC: No Freeborn: Yes	C. Effects on physician and staff burnout and work satisfaction
D8	E7	What is the likelihood that you will leave your current practice within two years?	FQHC ACP; MEMO	FQHC: No MEMO: DK ^c	
D9	E8	What do you think will be the <i>primary</i> reason for leaving your practice within two years?	MPR	NA	Not in tables
Use of electronic health records					
E1	F1	Does your practice have an EHR system for managing patient care?	2014 CPC Practice Survey	Yes	
E2	F2	The following is a list of functions that may be available on your EHR system. Please indicate how often you have used each function in the past 12 months:	MCMP	Yes	A.5. Health information technology use (Milestone 9)
E2a	F2a	Flag or transfer patient data to other providers within your practice organization	MPR	NA	
E2b	F2b	Flag or transfer patient data to other providers outside of your practice organization	MPR	NA	
E2c	-	Create clinical notes about patient office visits and medical history	MCMP	Yes	Not in table
E2d	F2c	Track communications with other health care providers	MCMP	Yes	A.5. Health information technology use (Milestone 9)
E2e	-	Help reconcile patient medications	MPR	NA	
E2f	-	Enter orders for new prescriptions or refills	MCMP	Yes	Not in tables
E2g	-	Enter orders for laboratory, radiology, and diagnostic tests	MCMP	Yes	
E2h	F2d	Review images of test results electronically (e.g., using a picture archiving and communication system, or PACS)	MPR	NA	A.5. Health information technology use (Milestone 9)
E2i	F2e	Review multiple test results for a patient and graph changes over time	MPR	NA	
E2j	F2f	Generate reports on specific quality measures (e.g., the percentage of patients that have received recommended colon cancer screening)	MPR	NA	A.5. and A.3. Use of data to guide quality improvement (Milestone 5)
E2k	F2g	Generate after-visit summaries for patients to take with them	MPR	NA	A.5. Health information technology use (Milestone 9)
E3	F3	The following is a list of alerts or reminders that may be available in your EHR system. Please indicate how often you have responded to each alert or reminder in the past 12 months:	MPR	NA	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
E3a	F3a	EHR alerts for possible drug interactions	MPR	NA	A.1. Care management for high-risk patients (Milestone 2) and A.5. Health information technology use (Milestone 9)
E3b	F3b	EHR alerts or reminders to the practice team for routine preventive care or chronic illness care (e.g., mammography or overdue hemoglobin A1c test for diabetes)	MPR	NA	A.5. Health information technology use (Milestone 9)
E3c	F3c	EHR alerts or reminders to patients for routine preventive care or chronic illness care	MPR	NA	A.5. Health information technology use (Milestone 9)
E4	F4	Please indicate how much you agree or disagree with the following statements:	SNMHI	Yes	
E4a	F4a	This practice's EHR is a big help to me in providing quality care to my patients	SNMHI	Yes	A.5. Health information technology use (Milestone 9)
E4b	F4b	This practice's EHR provides prompts at the time of the patient visit to remind me of key actions to take for the patient	SNMHI	Yes	A.5. Health information technology use (Milestone 9)
E4c	F4c	This practice's EHR is well integrated into the practice's daily workflow	SNMHI	Yes	A.5. Health information technology use (Milestone 9)
E4d	F4d	I trust the validity of the data in this practice's EHR	SNMHI	Yes	A.5. Health information technology use (Milestone 9)
Feedback reports					
F1	G1	In the past 12 months, have you seen any feedback reports on the performance of your practice or clinicians within the practice?	FQHC ACP	Yes	
F2	G2	In the past 12 months, which types of feedback reports on the performance of your practice or clinicians have you seen? Please indicate, for each report source, the types of content covered by these reports:	MPR	NA	
F2a	G2a	Reports from a private health insurance plan	MPR	NA	
F2b	G2b	Reports from a state health agency	MPR	NA	
F2c	G2c	Reports from Medicaid	MPR	NA	
F2d	G2d	Reports from Medicare	MPR	NA	
F2e	G2e	Reports from other organization(s) (specify)	MPR	NA	
F3	G3	In response to the feedback reports on the performance of your practice or clinicians in the practice that you have seen over the past 12 months, have there been any changes to . . .	FQHC ACP	Yes	A.3. Use of data to guide quality improvement (Milestone 5)
F3a	G3a	The work you perform?	FQHC ACP	Yes	
F3b	G3b	The work performed by others in the practice?	FQHC ACP	Yes	
F4	G4	Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report...	FQHC ACP	Yes	
F4a	G4a	How clear was the presentation of information?	FQHC ACP	Yes	
F4b	G4b	How timely was the information?	MPR	NA	
F4c	G4c	How accurate was the information?	MPR	NA	
F4d	G4d	How useful was the information?	FQHC ACP	Yes	
Participation in the Comprehensive Primary Care initiative					
-	H1	Thinking about the individual(s) in your practice who have made a substantive contribution of time or leadership to implement practice improvements to meet CPC Milestones, would you say that: Only one person did most of the substantive work on CPC A small group did most of the substantive work on CPC Most or all of the practice was involved in the substantive work on CPC Don't know	MPR	NA	D.2. Overall ratings of CPC

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables
-	H2	Overall, considering the amount of work required by CPC, how adequate or inadequate were the CPC payments across all payers?	MPR	NA	D.1. Ratings of CPC payments and assistance
-	H3	What is your role at your practice?	MPR	NA	Not in tables
Participation in the Comprehensive Primary Care initiative (continued)					
-	H4	CPC offers assistance to practices in a variety of ways. For each of the following types of assistance that you may have received in the past six months, please rate how useful this assistance has been to you in improving primary care:	2016 CPC Practice Survey	Yes	D.1. Ratings of CPC payments and assistance
-	H4a	CPC webinars	2016 CPC Practice Survey	Yes	
-	H4b	Practice-to-practice learning facilitated by CPC	2016 CPC Practice Survey	Yes	
-	H4c	In-person coaching at this practice provided by CPC	2016 CPC Practice Survey	Yes	
-	H4d	CPC-facilitated in-person meetings for practices and others in CPC	2016 CPC Practice Survey	Yes	
-	H4e	CPC Connect (https://app.innovation.cms.gov/CPCCConnect), previously referred to as CPC Collaboration site, where practices can interact with Learning Faculty and other practices, access key resources, and get event and initiative updates	2016 CPC Practice Survey	Yes	
-	H5	The CPC initiative has promoted a number of changes in the way practices deliver care. From your perspective, how important do you believe the following CPC functions and Milestones are to improving the care you provide to patients:	2016 CPC Practice Survey	Yes	D.2. Overall ratings of CPC
-	H5a	Providing around-the-clock access to care to your patients	2016 CPC Practice Survey	No	
-	H5b	Providing continuity of care to your patients	2016 CPC Practice Survey	No	
-	H5c	Planning for the chronic care needs of your patients	2016 CPC Practice Survey	No	
-	H5d	Planning for the preventive care needs of your patients	2016 CPC Practice Survey	No	
-	H5e	Stratifying patients by risk level	2016 CPC Practice Survey	No	
-	H5f	Providing patients with risk-based care management services	2016 CPC Practice Survey	No	
-	H5g	Providing behavioral (or mental) health services integrated within primary care	2016 CPC Practice Survey	Yes	
-	H5h	Providing medication management to high-risk patients	2016 CPC Practice Survey	No	
-	H5i	Engaging patients and their families in their care	2016 CPC Practice Survey	No	
-	H5j	Collecting and using patient feedback to improve quality of care and patient experience over time	2016 CPC Practice Survey	No	
-	H5k	Making sure that care is coordinated across the medical neighborhood	2016 CPC Practice Survey	No	
-	H5l	Using data feedback on clinical measures to improve quality of care over time	2016 CPC Practice Survey	No	
-	H5m	Using shared decision making tools so that your providers and your patients work together to arrive at care decisions	2016 CPC Practice Survey	No	
-	H6	Overall, how much has participation in the CPC initiative changed the quality of care or service that you currently provide to your patients?	2016 CPC Practice Survey	Yes	
-	H7	As you may have heard, CMS has announced a new initiative called CPC+. The next three questions are asking you about the current CPC initiative only. Please consider your overall experience participating in the CPC initiative—including learning activities, feedback reports, payments, reporting requirements, and impact on patient care—when answering these questions. Knowing what you know now, if you could go back to when CPC was announced in 2012, how much would you support or oppose your practice's participation in the CPC initiative?	2016 CPC Practice Survey	Yes	
-	H8	What would be the main reason(s) you would support participation in the CPC initiative?	2016 CPC Practice Survey	Yes	
-	H8_1	Work on CPC Milestones helps practice make positive changes and improve patient care	2016 CPC Practice Survey	Yes	
-	H8_2	Work on CPC Milestones improves clinician and staff work satisfaction	2016 CPC Practice Survey	Yes	
-	H8_3	Financial support provided in CPC is sufficient to support participation	2016 CPC Practice Survey	No	
-	H8_4	Learning support and activities provided in CPC are useful	2016 CPC Practice Survey	Yes	

Table E.5 (continued)

Round 1 question number	Round 2 question number	Question text	Source	Modified from original source	Location in data tables	
-	H8_5	Learning support provided in CPC improves clinician and staff skill development	MPR	NA		
-	H8_6	Data/feedback reports provided in CPC are useful	2016 CPC Practice Survey	No		
-	H8_7	Opportunity to contribute to field of primary care practice transformation	2016 CPC Practice Survey	No		
-	H8_8	Other (specify)	2016 CPC Practice Survey	No		
Participation in the Comprehensive Primary Care initiative (continued)						
-	H8_0	No reasons to support participation in CPC	MPR	NA		
-	H9	What would be the main reason(s) you would oppose participation in the CPC initiative?	2016 CPC Practice Survey	Yes		
-	H9_1	CPC does not allow the practice to join an Accountable Care Organization (ACO)	2016 CPC Practice Survey	Yes		
-	H9_2	Reporting requirements in CPC are too burdensome	2016 CPC Practice Survey	No		
-	H9_3	Work involved in implementing the CPC Milestones is too burdensome	2016 CPC Practice Survey	Yes	D.2. Overall ratings of CPC	
-	H9_4	Financial support provided in CPC is insufficient to support participation	2016 CPC Practice Survey	Yes		
-	H9_5	Insufficient practice staffing to participate in CPC	2016 CPC Practice Survey	No		
-	H9_6	CPC does not substantially improve patient care	MPR	NA		
-	H9_7	Other (specify)	2016 CPC Practice Survey	No		
-	H9_0	No reasons to oppose participation in CPC	MPR	NA		
Background characteristics of respondents						
G1	I1	What is your gender?	SNMHI; PACT	No		
G2	I2	What is your current age in years?	PACT	No		
G3	I3	Are you of Hispanic or Latino origin?	SNMHI; PACT	Yes		
G4	I4	What is your race?	SNMHI; PACT	Yes		
-	I5	Do you personally perform any of the following tasks at your practice, regardless of your job title?	MPR	NA		
-	I5_1	Care management for high-risk patients	MPR	NA		
-	I5_2	Care coordination with specialists or post-hospital discharge follow-up	MPR	NA		
-	I5_3	Quality improvement (systematically using data from your practice to improve care quality)	MPR	NA		
-	I5_4	Linking patients to community services (e.g., social services, Meals on Wheels)	MPR	NA	E.1. Clinician and staff characteristics	
-	I5_5	None of the above	MPR	NA		
G5	I6	What is your primary role at this practice site—that is, the job role in which you work the most hours in a typical week?	SNMHI; PACT	Yes		
G6	I7	Which types of professional licensing or certification do you have?	MPR	NA		
G7	I8	How long have you worked at the practice?	SNMHI, PACT	Yes		
G8	I9	In a typical week, how many hours do you work at the practice?	SNMHI	Yes		
G9	I10	Please estimate the percentage of time during a typical work week at your practice that you spend providing direct patient care. Direct patient care includes all interactions with patients themselves, as well as providing other services related to the care of a specific patient, such as writing referrals or prescriptions, making phone calls, and exchanging emails with a patient or about a patient's care.	MPR	NA		
G10	I11	Do you provide predominantly, but not necessarily exclusively, primary care services?	PACT	Yes		

Sources:

NAMCS: Physician Survey. DesRoches, C., and E. Rich. "Collecting Data on Physicians and Their Practices: Final Report to AHRQ." Washington, DC: Mathematica Policy Research, 2014.

SNMHI: Safety Net Medical Home Initiative (SNMHI) Staff Experience Survey. Sarah E. Lewis, Robert S. Nocon, Hui Tang, Seo Young Park, Anusha M. Vable, Lawrence P. Casalino, Elbert S. Huang, Michael T. Quinn, Deborah L. Burnet, William Thomas Summerfelt, Jonathan M. Birnberg, and Marshall H. Chin. "Patient-Centered Medical Home Characteristics and Staff Morale in Safety Net Clinics." *Archives of Internal Medicine*, vol. 172, no. 1, 2012, pp. 23–31. Available at <http://www.commonwealthfund.org/~media/files/innovations/jan/3bstaff-experience-survey.pdf>.

Table E.5 (continued)

2016 CPC Practice Survey—2016 Comprehensive Primary Care Practice Survey. Mathematica Policy Research. “Evaluation of the Comprehensive Primary Care Initiative 2016 Practice Survey.” Princeton, NJ: Mathematica Policy Research, administered starting April 2016.

Birnberg, Jonathan, and Marshall H. Chin. “Patient-Centered Medical Home Characteristics and Staff Morale in Safety Net Clinics.” *Archives of Internal Medicine*, vol. 172, no. 1, 2012, pp. 23–31. Survey available at <http://www.commonwealthfund.org/Innovations/Tools/2012/Jan/~media/Files/Innovations/Jan/3bStaff%20Experience%20Survey.pdf>.

PACT: 2013 Patient Aligned Care Team (PACT) Personnel Survey. Helfrich C.D., E.D. Dolan, J. Simonetti, R. Reid, S. Joos, B. Wakefield, G. Schectman, R. Stark, S. Fihn, H. Harvey, and K. Nelson. “Elements of Team-Based Care in a Patient-Centered Medical Home Are Associated with Lower Burnout Among VA Primary Care Employees.” *Journal of General Internal Medicine*, vol. 29, suppl. 2, 2014, pp. 659–666. doi:10.1007/s11606-013-2702-z. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4070238/#MOESM1>.

SOAPC: Survey of Organizational Attributes for Primary Care (SOAPC). Ohman-Strickland, Pamela A., A. John Orzano, Paul A. Nutting, W. Perry Dickinson, Jill Scott-Cawiezell, Karissa Hahn, Michelle Gibel, and Benjamin F. Crabtree. “Measuring Organizational Attributes of Primary Care Practices: Development of a New Instrument.” *Health Services Research*, vol. 42, no. 3, Part 1, June 2007, pp. 1257–1270.

FQHC APCP: Federally Qualified Health Center Advanced Primary Care (FQHC APCP) Demonstration Clinician and Staff Experience Survey (Draft). Kahn, Katherine L., Justin W. Timbie, Mark W. Friedberg, Tara A. Lavelle, Peter Mendel, J. Scott Ashwood, Lisa Hiatt, Ian Brantley, Beverly A. Weidmer, Afshin Rastegar, Aaron Kofner, Rosalie Malsberger, Mallika Kommareddi, Denise D. Quigley, and Claude M. Setodji. “Evaluation of CMS FQHC APCP Demonstration: Second Annual Report.” July 2015. RR-886/1-CMS. Prepared for the Centers for Medicare & Medicaid Services. Published by the RAND Corporation, Santa Monica, CA: RAND Corporation. Available at <https://innovation.cms.gov/Files/reports/fqhc-scndevalrpt.pdf>.

T-TPQ: Teamwork Perceptions Questionnaire. American Institutes for Research. “TeamSTEPS Teamwork Perceptions Questionnaire Manual.” Prepared for the Center for Quality Improvement and Patient Safety Agency for Healthcare Research and Quality, Rockville, MD. Washington, DC: American Institutes for Research. June 2010. Available at <https://www.ahrq.gov/sites/default/files/wysiwyg/teamstpps/instructor/reference/teamperceptionsmanual.pdf>.

CSQ: TransforMed Clinician Staff Questionnaire (CSQ). Jaén, Carlos Roberto, Benjamin F. Crabtree, Raymond F. Palmer, Robert L. Ferrer, Paul A. Nutting, William L. Miller, Elizabeth E. Stewart, Robert Wood, Marivel Davila, and Kurt C. Stange. “Methods for Evaluating Practice Change Toward a Patient-Centered Medical Home.” *Annals of Family Medicine*, vol. 8, suppl. 1, 2010, pp. S9–S20. http://annfamned.org/cgi/content/full/8/suppl_1/s9/DC1

Reciprocal Learning Scale. Leykum Luci K., Ray Palmer, Holly Lanham, Michelle Jordan, Reuben R. McDaniel, Polly H. Noël, and Michael Parchman. “Reciprocal Learning and Chronic Care Model Implementation in Primary Care: Results from a New Scale of Learning in Primary Care.” *BMC Health Services Research*, vol. 11, no. 44, February 23, 2011. doi: 10.1186/1472-6963-11-44.

MEMO: Minimizing Error, Maximizing Outcome (MEMO) Survey. Linzer, Mark, Linda Baier Manwell, Marlon Mundt, Eric Williams, Ann Maguire, Julia McMurray, and Mary Beth Plane. “Organizational Climate, Stress, and Error in Primary Care: The MEMO Study.” In *Advances in Patient Safety: From Research to Implementation (Volume 1: Research Findings)*, edited by K. Henriksen, J.B. Battles, E.S. Marks, and D.I. Lewin. Rockville, MD: Agency for Healthcare Research and Quality, February 2005, pp. 65–77.

MBI-HSS: Maslach Burnout Inventory–Human Services Survey (MBI-HSS). Maslach, Christina, Susan E. Jackson, Michael P. Leiter, Wilmar B. Schaufeli, and Richard L. Schwab. “Maslach Burnout Inventory—Instruments and Scoring Guides.” Mind Garden, Inc.

Freeborn: Freeborn, D.K. “Satisfaction, Commitment, and Psychological Wellbeing Among HMO Physicians.” *Western Journal of Medicine*, vol. 174, no. 1, 2001, pp. 13–18. PMID: 11154654. <http://dx.doi.org/10.1136/ewj.174.1.13>

2014 CPC Practice Survey: 2014 Comprehensive Primary Care (CPC) Practice Survey. Mathematica Policy Research. “Evaluation of the Comprehensive Primary Care Initiative 2014 Practice Survey.” Princeton, NJ: Mathematica Policy Research, administered starting March 2014.

MCMP: Medicare Care Management Performance (MCMP) Demonstration: Physician Survey. Mathematica Policy Research. “Evaluation of the Medicare Care Management Performance (MCMP) Demonstration Physician Survey.” Princeton, NJ: Mathematica Policy Research, administered 2009.

MPR: Mathematica Policy Research created this question for the CPC clinician and staff survey.

Notes:

^a We do not know how the lead-in question was worded in SOAPC. The study on SOAPC provided the wording for the sub-items but not for the lead-in text.

^b We do not know how the lead-in question was worded. The literature on the Reciprocal Learning Scale listed the sub-items but did not provide the lead-in statement.

^c We took these questions from the FQHC APCP. The FQHC APCP identified the MEMO survey as the original source for these questions, but we do not have access to the MEMO survey and therefore do not know how these questions were originally worded.

NA = not available. DK = don’t know.

Most (82 percent) of the questions are identical for clinicians and staff. Across both rounds, the survey asked 46 questions of either clinicians or staff only, as these questions related to clinician- or staff-specific roles. In the second round, the survey asked only clinicians questions about the practice, such as its ownership, services provided to patients, and participation in initiatives.

C. Analysis methods

Calculation of composite measures. For each composite measure, we used the following procedure. First, we computed each composite from the responses to a set of questions (see below). Next, we rescaled ordinal responses to be in the range 0 to 1, oriented so that larger values signify more favorable responses. Finally, for each survey respondent, we averaged questions in the composite, dropping any missing, invalid, or “don’t know or does not apply” responses. (As described previously, for individual question items with the option “don’t know or does not apply,” we report the estimated rate of this response.) Table E.6 provides more information on the data elements included in the composite measures.

Table E.6. Questions included in composite measures, and questions reoriented

Composite measures	Questions included (Round 2 survey instrument numbering)	Questions reoriented
Care management	B1a-h	
Team functioning (SOAPC)	D4a-q	D4c, D4g, D4j-n
a. Communication	a. D4a-d	
b. Decision making	b. D4e-i	
c. Stress/chaos	c. D4j-n	
d. History of change	d. D4o-q	
Teamwork perceptions	D5a-k	
a. Team structure	a. D5a-f	
b. Situation monitoring	b. D5g-k	
Adaptive reserve	D6a-n	D6m
Reciprocal learning	D7a-e	
Control over work	E3a-g	
Maslach Burnout Inventory ^a	E5a-i	E5b,c,d,e,g,h
a. Emotional exhaustion	a. E5c,d,g	
b. Depersonalization	b. E5b,e,h	
c. Personal accomplishment	c. E5a,f,i	
Electronic health record use	F2a-g	F2a-g

^a The MBI contains 22 items divided into the three subscales (Maslach et al. 1996). We use an abbreviated version of the subscales containing the nine items used by McManus et al. (2002) in an evaluation of PACT.

Statistical estimation and testing. We estimated the average survey responses, accounting for the sampling design, for each staff type, region, survey round, and CPC-versus-comparison group. We achieved this objective by clustering by practice and stratifying by region (for all but the NP/PA group) and applying weights that multiply the survey design weights and survey nonresponse weights described previously. For clinicians, within each survey round, we tested

the null hypothesis that responses were the same across CPC and comparison groups. For continuous responses, we used t-tests; for categorical responses, we used chi-squared tests, using the 0.10 significance level. Chi-squared tests are not applicable to results with small cell counts, and in those cases, we report the p -values as not applicable (n.a.). These testing procedures also took into account the sampling design and nonresponse weights, and we clustered standard errors by practice for CPC respondents and by matched set for comparison respondents to account for clustering of responses within a practice and for respondents answering in more than one round. Given the similar characteristics of the CPC and comparison physicians after nonresponse adjustment, we did not regression-adjust the results. In writing up findings, we considered responses between physicians in CPC and comparison practices to be of substantial importance if the difference between the two groups was larger than five percentage points.

Subgroup effects. We examined responses for CPC and comparison group physicians for three key subgroups: (1) whether the physician is part of a system (from 2016 data from SK&A, a healthcare vendor); (2) size of the physician's practice (measured by the number of primary care clinicians in the practice in 2012) and (3) whether the average Hierarchical Condition Category (HCC) score of Medicare FFS beneficiaries in the physician's practice is above or below the median for all practices in the sample (using patients' 2012 HCC score).

We first examined whether the responses differed between physicians in and not in the subgroup, using the combined CPC and comparison physician sample. To identify differences, we estimated a regression on each outcome, with a binary indicator for whether the physician's practice was in the subgroup of interest. We examined whether the coefficient on the subgroup indicator for the CPC and comparison physicians combined was statistically significant to determine different responses by subgroup. Next, we estimated whether CPC had a differential effect on physicians in the subgroups, using a separate regression model that contained three explanatory variables: (1) a binary indicator for treatment (CPC group) status; (2) a binary indicator for whether the physician's practice is in the subgroup; and (3) a term interacting treatment and subgroup status. We examined whether the coefficient on the treatment (CPC group)-subgroup interactor was statistically significant to determine whether CPC had a differential effect for members of the subgroup.

We examined subgroup patterns for physicians for select questions in each of our five key areas:

1. Proportion of physicians reporting high burnout
2. Control over work composite score
3. Alignment of work with training (physicians' reports of how much time they spent doing work that was well matched to their training and the amount of time they spent doing work that could be done by someone with less training)
4. Satisfaction with work (differences in physicians' responses to how satisfied they are with their current job, as well as differences in the likelihood they will leave their current practice within the next two years)

5. Ratings of the CPC initiative (differences in CPC physicians' reports of how much CPC improved the quality of care or service they provided to their patients and whether they would support their practice's participation in CPC again, knowing what they know now)

Software. We analyzed survey data using R statistical software (version 3.3.1; R Core Team 2016), using the survey package (version 3.31-5; Lumley 2016), and Stata version 14.2. We created the tables using the Gmisc (version 1.4.1; Gordon 2016) and knitr (version 1.15.1) packages (Xie 2016).

D. Data tables

1. Practice Transformation

a. Care management for high-risk patients (Milestone 2)

Table E.7. Care management scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Care management	0.78	0.76	0.06	0.84	0.81	0.05	0.77	0.8	0.3	0.86	0.81	0.06	0.83	0.88	0.85	0.85	0.81	0.82	0.8	0.83	0.8	0.84
N	630	443		624	492		151	103		159	101		269	274	62	206	485	527	523	566	324	416

Note: This scale includes items B1a-h. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.8. B1a: Practice can easily identify patients with a particular disease

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.01	5	3	0.23	1	3	0.38	2	2	0.54	2	1	0	1	1	1	2	1	0	1
Disagree	2	6		2	1		2	2		1	2		0	1	1	0	3	0	1	3	2	1
Neither disagree or agree	2	5		2	2		4	6		0	0		2	2	1	2	11	13	7	7	6	1
Agree	34	32		14	19		21	26		19	26		27	22	27	35	39	41	43	43	39	41
Strongly agree	60	55		77	73		69	63		76	70		69	74	71	60	36	34	43	45	52	53
Does not apply or Don't know	0	0		1	1		2	0		1	0		0	0	0	1	11	11	3	2	1	2
N	628	440		621	490		151	102		158	99		269	274	61	206	484	530	520	566	324	413

Table E.9. B1b: Practice has good systems in place to track test results and follow-up with patients about the results

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.31	5	2	0.35	1	3	0.12	2	2	0.55	2	1	0	1	0	1	2	2	1	2
Disagree	3	6		2	2		9	2		2	6		2	0	2	3	6	3	3	3	4	2
Neither disagree or agree	6	5		2	2		6	6		2	3		3	2	4	6	4	3	5	4	4	2
Agree	40	35		26	28		33	37		27	28		35	27	33	40	47	45	40	35	43	39
Strongly agree	50	53		65	65		51	53		66	61		58	70	60	49	41	45	49	56	47	54
Does not apply or Don't know	0	1		1	0		0	0		1	0		1	0	0	0	2	2	1	1	1	0
N	630	442		622	492		151	103		159	101		269	274	62	206	487	533	523	567	324	416

Table E.10. B1c: Practice has a good system for identifying patients at high risk for poor outcomes

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0	3	2	0	1	1	0.25	2	2	0.03	2	1	0	1	0	1	2	1	0	3
Disagree	5	19		3	8		15	7		3	9		1	1	4	2	3	3	4	1	5	3
Neither disagree or agree	15	17		5	16		15	16		3	12		5	3	14	4	8	7	9	9	11	7
Agree	47	43		34	43		34	44		40	39		43	31	35	38	42	39	46	37	47	36
Strongly agree	31	20		54	31		36	30		51	37		47	63	46	53	37	43	36	49	34	50
Does not apply or Don't know	0	1		1	0		0	2		1	1		1	1	0	3	10	8	3	2	2	1
N	625	442		624	490		151	103		159	101		268	274	62	206	485	529	522	564	322	415

Table E.11. B1d: Practice intensifies services for patients at high risk for poor outcomes

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0	4	3	0	1	2	0.11	2	2	0.01	2	1	1	0	0	1	1	2	1	2
Disagree	4	15		2	8		11	4		4	5		1	1	0	2	3	3	4	1	3	5
Neither disagree or agree	13	19		5	16		7	17		2	15		8	4	6	5	11	9	14	11	15	7
Agree	48	43		28	42		49	44		35	40		48	34	40	37	41	37	42	38	45	34
Strongly agree	33	23		59	32		31	32		57	39		40	60	54	54	33	40	35	45	34	49
Does not apply or Don't know	0	0		1	0		0	1		1	1		1	1	0	1	11	10	4	3	2	2
N	627	442		623	490		148	103		159	101		270	273	62	204	485	525	521	561	322	415

E.30

Table E.12. B1e: Practice individualizes services to different people with different needs

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.43	3	2	0	1	1	0.81	2	2	0.23	2	1	1	0	0	1	1	2	1	2
Disagree	3	5		3	3		5	5		2	1		1	0	0	2	1	2	3	1	3	1
Neither disagree or agree	11	12		4	9		4	5		3	9		4	3	0	6	9	5	10	8	10	7
Agree	51	44		32	43		52	43		39	39		44	36	50	32	49	44	43	41	46	35
Strongly agree	34	37		58	43		38	44		52	49		49	60	45	59	37	45	41	46	40	51
Does not apply or Don't know	0	1		1	1		0	1		3	0		0	0	4	0	3	4	1	1	0	3
N	626	441		622	491		149	103		158	101		268	273	62	204	485	525	522	565	323	416

Table E.13. B1f: Practice is effective in helping patients self-manage their chronic illness

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.71	3	2	0.1	0	2	0.09	2	1	0.26	2	1	0	1	0	1	1	2	1	1
Disagree	4	4		3	1		6	1		0	3		4	0	3	4	2	1	3	2	4	2
Neither disagree or agree	15	15		6	10		16	9		4	9		8	5	7	7	9	7	11	9	13	7
Agree	59	55		49	44		52	50		45	45		54	46	50	48	48	48	51	44	51	44
Strongly agree	22	25		39	42		26	37		47	42		33	47	40	40	35	39	33	43	31	46
Does not apply or Don't know	0	0		0	0		0	1		1	0		1	0	1	0	6	4	1	1	0	1
N	628	442		625	491		151	103		159	100		270	272	62	206	484	530	519	563	324	414

Table E.14. B1g: Patient care is coordinated well among physicians, nurses, and practice staff within practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.21	5	2	0.08	1	1	n.a.	2	2	n.a.	2	1	0	1	0	1	2	1	1	3
Disagree	3	5		1	2		6	5		2	5		3	1	2	3	5	3	4	2	3	3
Neither disagree or agree	9	9		3	4		9	8		4	7		5	4	5	6	5	4	5	5	6	3
Agree	49	42		32	33		41	37		34	32		45	28	45	38	42	43	41	32	43	35
Strongly agree	37	43		59	56		44	50		59	54		45	66	48	51	45	48	47	58	46	53
Does not apply or Don't know	1	0		1	2		0	0		0	0		1	0	0	1	2	1	1	1	1	3
N	630	443		624	491		151	103		159	101		270	274	62	206	488	531	520	566	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.15. B1h: This practice effectively utilizes community resources to help meet the health care needs of its patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.09	4	2	0.05	1	1	0.28	1	2	0.82	2	1	0	0	0	1	2	2	1	2
Disagree	8	9		3	4		14	8		3	4		3	1	6	2	4	2	4	2	6	4
Neither disagree or agree	24	17		9	15		20	18		10	13		15	6	11	7	10	8	12	11	9	9
Agree	49	50		46	48		41	39		46	44		47	50	40	40	43	43	45	41	45	35
Strongly agree	18	23		38	31		23	34		39	37		31	42	39	50	37	39	34	41	38	49
Does not apply or Don't know	0	0		1	1		1	0		1	0		2	0	4	1	6	6	2	2	1	1
N	630	443		625	491		151	103		157	101		269	274	62	206	488	532	523	565	323	416

E.32

Table E.16. B2: The share of high-risk patients or patients with a chronic illness, who receive a copy of their care plan (different from a visit summary) that includes self-management and clinical management goals and steps to reach these goals

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
All	17	15	0.01	16	8	0.07
Most	34	24		31	25	
Some	23	27		26	20	
A few	12	12		14	19	
None	7	15		6	16	
Does not apply or Don't know	7	7		8	12	
N	621	488		158	98	

Table E.17. E1b: In a typical week, how often does respondent counsel patients on how they can care for their health or health conditions at home (e.g., diet, exercise, medication, smoking cessation, etc.)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	n.a.	40	43	18	15	65	62	7	10	0	3
Rarely	1	2		0	3		0	0		0	0		16	17	10	8	12	13	14	13	11	3
Sometimes	8	10		5	9		7	6		1	7		19	13	19	17	9	10	28	24	26	23
Frequently	91	88		95	88		93	94		99	93		25	27	53	60	14	15	52	53	63	70
N	632	442		621	490		150	103		157	102		267	269	62	205	483	529	521	567	323	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

E.33

Table E.18. E1c: In a typical week, how often does respondent connect patients with community resources to help manage their health conditions (e.g., self-help programs, Meals on Wheels, etc.)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	2	4	0.15	2	3	0.02	2	3	0.25	0	1	0.65	27	37	14	8	46	46	13	15	6	10
Rarely	23	27		18	28		28	21		18	20		28	20	5	14	20	21	26	23	20	18
Sometimes	56	50		50	49		55	50		59	54		33	24	34	28	21	21	35	37	45	36
Frequently	20	19		30	20		15	25		23	25		12	19	47	49	13	12	26	25	29	36
N	632	443		621	490		150	103		157	102		267	269	63	205	484	528	520	565	324	417

Table E.19. E1e: In a typical week, how often does respondent initiate contact with patients to discuss test results

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	0	1	0.3	0	0	0.54	1	0	0.25	0	0	n.a.	34	43	21	15	45	51	4	4	2	2
Rarely	5	9		5	7		1	4		3	2		20	13	11	14	14	13	6	8	3	6
Sometimes	19	20		17	17		15	13		14	16		20	15	25	23	17	15	14	12	17	14
Frequently	76	71		78	76		83	83		83	83		25	30	43	48	24	21	76	76	78	78
N	631	443		621	490		150	103		157	102		268	268	63	206	486	529	520	566	324	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

E.34

Table E.20. E1j: In a typical week, how often does respondent reconcile patient medications before or after visits

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	1	1	0.93	3	0	0.01	3	0	0.03	0	0	n.a.	52	52	23	22	66	73	5	5	4	3
Rarely	4	4		2	3		2	2		5	0		12	11	9	10	10	7	5	6	5	5
Sometimes	12	11		11	11		9	15		18	16		8	8	27	21	9	6	10	9	17	12
Frequently	83	85		85	86		86	82		76	84		29	29	42	46	14	15	79	81	73	81
N	630	442		621	490		150	103		156	102		268	268	63	205	484	529	515	566	324	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.21. E1k: In a typical week, how often does respondent communicate with other health care providers within their practice to obtain a professional opinion about their patients' health issues

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	2	4	0.01	2	5	0.01	0	0	n.a.	0	0	0.3	35	37	12	12	54	54	11	9	5	4
Rarely	13	20		12	18		3	6		2	6		14	15	8	10	12	10	13	13	10	10
Sometimes	53	44		50	48		42	45		44	45		24	19	22	17	17	17	33	28	26	21
Frequently	32	32		37	29		55	49		54	49		28	29	57	61	17	19	43	51	59	66
N	627	435		615	488		148	103		157	102		260	265	62	206	485	529	517	562	324	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

E.35

Table E.22. E1m: In a typical week, how often does respondent meet with care coordinators/care managers at this practice to discuss care of high-risk patients

	Primary Care Physician						NP/PA					
	2013-2014			2016			2013-2014			2016		
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value
Never	9	36	0	4	25	0	21	40	0	8	30	0
Rarely	20	29		13	33		20	33		18	28	
Sometimes	40	24		30	26		35	21		38	37	
Frequently	31	11		52	16		23	6		35	5	
N	628	438		620	489		150	101		157	101	

Table E.23. E1n: In a typical week, how often does respondent meet with clinicians at this practice to discuss care of high-risk patients

	Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	23	25	16	14	69	69	23	28	15	19
Rarely	17	17	19	17	9	11	24	20	20	19
Sometimes	30	31	28	24	13	10	31	27	37	26
Frequently	31	27	37	45	9	11	22	25	29	36
N	267	261	63	202	484	513	520	550	323	398

Table E.24. F3a: How often in the past 12 months respondent has responded to EHR alerts for possible drug interactions

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
You responded routinely	68	73	0.23	74	72	0.63	74	89	0	78	82	0.57	28	28	39	34	9	11	58	56	63	54
You responded occasionally	27	20		21	21		23	7		19	15		4	5	18	18	5	4	16	14	17	21
Function available but you never responded	4	5		3	5		2	3		1	0		6	4	6	7	6	5	7	6	4	6
Function not part of your work tasks	0	1		0	1		1	0		1	1		60	62	28	36	76	74	16	21	14	15
Function not in EHR or not activated	1	2		2	1		1	2		0	2		2	2	10	5	4	5	2	3	3	4
N	621	427		616	481		149	96		158	99		265	272	62	202	466	497	511	554	321	407

Table E.25. I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.

	Primary Care Physician			NP/PA			Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2016			2016			2016		2016		2016		2016		2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	
Care management for high-risk patients	74	72	0.57	69	63	0.43	15	75	5	30	52					
Care coordination with specialists or post-hospital discharge follow-up	75	76	0.85	63	68	0.5	22	82	17	42	56					
Quality improvement (systematically using data from your practice to improve care quality)	65	58	0.14	41	31	0.15	67	54	17	42	47					
Linking patients to community services (e.g., social services, Meals on Wheels)	53	57	0.33	60	67	0.28	22	74	15	43	58					
None of the above	11	12	0.64	11	15	0.41	30	7	69	34	21					
N	628	492		155	102		276	205	531	562	407					

b. Access to care (Milestone 3)

Table E.26. E1f: In a typical week, how often does respondent respond to patient phone calls to discuss their health issues

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CP	Comp	p-value	CP	Comp	p-value	CP	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	0	2	0.11	0	1	0.75	0	0	n.a.	1	1	0.06	28	35	15	7	36	43	3	3	1	0
Rarely	7	9		6	6		6	4		4	2		16	13	2	5	12	12	3	3	2	4
Sometimes	18	20		15	15		19	18		17	31		25	20	18	14	20	14	10	9	6	4
Frequently	75	69		78	77		75	79		79	67		30	31	65	74	32	31	85	84	90	91
N	632	443		619	490		150	103		157	102		268	270	63	205	484	529	522	565	324	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.27. E1g: In a typical week, how often does respondent initiate phone calls with patients to discuss their health issues

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	1	4	0.24	1	1	0.56	0	1	0.31	1	1	0.29	34	39	16	9	41	50	5	4	2	1
Rarely	18	19		16	16		11	5		8	6		18	18	5	5	15	11	7	6	4	2
Sometimes	34	36		28	32		34	37		29	41		22	14	15	13	18	13	15	16	12	10
Frequently	47	42		56	51		55	58		63	52		27	29	64	73	26	26	73	74	82	88
N	631	443		620	490		150	102		157	102		268	269	63	205	483	527	520	564	324	416

Table E.28. E1h: In a typical week, how often does respondent read electronic communications (e.g., secure email) from patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	24	30	0.3	3	5	0	35	34	0.71	4	10	0.14	26	18	10	18	45	33	27	10	24	11
Rarely	17	20		8	15		23	18		13	18		18	20	15	20	14	16	11	8	18	13
Sometimes	21	17		24	27		16	21		25	27		32	27	34	23	19	21	16	17	19	21
Frequently	37	34		65	52		27	27		58	44		23	36	42	40	22	30	47	65	39	55
N	625	443		620	489		150	103		157	102		267	271	63	204	483	529	520	563	320	415

Table E.29. E1i: In a typical week, how often does respondent respond to electronic communications from patients to discuss their health issues

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	23	29	0.42	3	6	0	31	37	0.36	5	11	0.38	37	34	13	21	56	51	27	9	23	11
Rarely	18	18		8	15		23	14		11	12		22	17	20	18	13	13	9	9	17	15
Sometimes	23	21		23	26		15	18		26	27		23	20	31	26	15	14	18	20	17	20
Frequently	36	31		66	53		31	30		58	50		19	30	35	35	17	22	47	62	42	55
N	626	443		620	490		150	103		155	102		266	268	63	204	484	528	518	564	321	416

c. Use of data to guide quality improvement (Milestone 5)

Table E.30. D4i: Staff and clinicians are involved in developing plans for improving quality

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	2	0.17	1	1	0.03	2	3	n.a.	0	2	0.17	0	0	0	2	2	1	2	1	1	3
Disagree	3	6		3	3		7	7		6	10		2	2	10	4	7	5	7	9	6	7
Neither disagree or agree	8	8		5	8		8	17		9	10		5	4	14	13	16	9	10	10	18	11
Agree	50	50		44	49		44	41		45	51		47	41	46	44	48	48	44	44	38	43
Strongly agree	38	34		47	38		39	33		40	24		46	52	30	36	26	33	36	35	35	35
Does not apply or Don't know	0	0		0	1		0	0		0	3		0	1	1	1	1	3	0	1	2	0
N	631	445		622	487		151	103		158	103		270	275	63	205	487	532	520	569	321	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.31. D4o: During the past 12 months, this practice has changed how it takes initiative to improve patient care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	2	0	3	4	0	1	5	0	2	5	n.a.	2	2	0	1	2	3	2	1	1	1
Disagree	5	20		8	18		5	15		11	16		4	4	2	9	8	9	7	5	7	7
Neither disagree or agree	7	16		16	22		6	14		16	16		4	13	6	12	9	13	9	18	10	17
Agree	51	48		55	41		59	51		52	52		56	52	52	50	55	50	53	54	50	53
Strongly agree	36	14		17	13		28	13		20	11		34	30	40	26	26	19	27	19	30	20
Does not apply or Don't know	0	0		0	3		1	2		0	0		0	0	0	3	1	6	1	3	2	2
N	630	444		621	487		151	103		159	103		270	276	63	205	488	534	522	568	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.32. D4p: During the past 12 months, this practice has changed how it does business

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	4	0	7	5	0	1	4	0.11	4	6	0.68	2	3	0	2	1	3	3	2	2	4
Disagree	15	26		19	36		15	28		19	23		10	14	9	17	15	19	13	16	12	16
Neither disagree or agree	19	19		27	21		20	17		28	28		18	24	19	21	22	33	23	29	20	27
Agree	41	36		35	27		45	37		35	29		48	46	52	37	43	32	42	38	44	34
Strongly agree	19	13		10	9		15	10		11	8		22	12	19	14	15	8	14	9	18	13
Does not apply or Don't know	5	2		3	2		5	3		3	6		0	1	1	9	5	6	6	6	3	8
N	632	445		621	487		151	103		159	103		270	276	63	204	487	534	522	568	321	416

Table E.33. D5e: This practice has clearly articulated goals

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	0	0.85	0	1	0.91	2	1	0.8	0	1	n.a.	1	0	0	4	1	3	1	1	1	1
Disagree	6	6		4	4		9	6		8	10		4	3	8	5	5	6	5	4	8	8
Neither disagree or agree	17	19		14	15		18	19		16	17		17	9	15	10	16	13	15	16	17	15
Agree	53	53		53	51		46	45		47	45		51	52	41	52	53	53	51	49	50	49
Strongly agree	24	23		29	30		25	29		29	28		27	35	36	28	23	24	27	30	24	26
Does not apply or Don't know	0	0		0	0		0	0		0	0		0	1	0	0	2	1	1	1	0	1
N	631	437		622	488		151	104		159	103		270	276	62	203	486	533	519	568	322	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

E.41

Table E.34. D5f: This practice operates at a high level of efficiency

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.76	1	1	0.27	3	2	0.39	0	2	n.a.	0	0	0	3	1	3	2	1	3	2
Disagree	13	10		11	7		10	12		10	14		5	5	9	7	7	7	5	5	10	9
Neither disagree or agree	22	22		13	17		17	15		18	19		17	8	25	14	17	12	18	15	19	18
Agree	40	44		45	46		48	39		44	35		48	48	33	48	48	51	46	52	42	47
Strongly agree	24	23		29	29		22	32		27	30		30	39	32	27	27	26	29	27	27	24
Does not apply or Don't know	0	0		1	0		0	0		0	0		0	1	0	0	1	0	0	0	0	0
N	631	437		621	488		151	104		159	103		270	275	62	203	487	532	521	569	322	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.35. D5h: Staff monitor each other's performance

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.98	0	0	0.88	2	0	0.29	0	1	0.47	1	0	0	2	2	2	3	1	2	1
Disagree	13	12		10	10		15	16		11	19		14	12	16	14	13	14	14	12	14	13
Neither disagree or agree	35	35		29	27		26	22		20	19		28	23	21	27	32	29	26	28	26	32
Agree	39	40		48	50		45	47		54	48		46	47	52	38	38	39	43	45	42	40
Strongly agree	9	11		11	11		9	14		12	10		10	16	8	15	11	14	11	11	13	13
Does not apply or Don't know	2	2		2	2		3	1		2	2		2	1	2	4	4	3	2	1	2	2
N	632	437		622	488		151	103		159	103		270	276	62	204	485	528	522	569	320	413

Table E.36. D5i: Staff exchange relevant information as it becomes available

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	0	0.47	0	0	0.74	2	1	0.19	0	1	0.7	0	0	0	2	1	2	2	0	2	1
Disagree	4	4		3	2		7	4		5	3		2	1	4	7	10	9	5	6	6	7
Neither disagree or agree	14	10		9	8		7	11		6	10		7	7	5	11	10	11	9	10	7	10
Agree	59	63		59	64		61	50		65	62		64	58	67	51	61	56	60	57	59	54
Strongly agree	21	23		29	25		23	34		24	24		28	34	24	28	19	22	24	27	26	27
Does not apply or Don't know	0	0		1	0		0	0		1	1		0	0	0	1	0	0	0	0	1	0
N	631	437		622	489		151	104		158	103		269	276	62	204	486	532	524	570	322	414

Table E.37. D5k: Staff correct each other's mistakes

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.1	1	0	0.85	2	1	0.1	1	1	0.55	0	1	2	2	1	3	3	3	4	3
Disagree	6	10		4	5		11	14		5	11		10	12	20	6	11	11	12	10	13	17
Neither disagree or agree	25	26		22	22		17	33		24	25		26	29	24	30	24	24	29	25	30	31
Agree	58	50		59	60		59	43		59	51		51	41	39	44	47	45	41	47	42	39
Strongly agree	8	11		13	10		10	7		9	10		8	16	12	13	14	17	13	14	8	7
Does not apply or Don't know	2	1		2	2		1	2		2	3		3	1	2	5	3	1	3	1	3	2
N	632	437		621	489		151	103		157	102		270	275	62	203	485	534	521	570	321	412

E.43

Table E.38. D6a: People in this practice actively seek new ways to improve how they do things

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.38	0	0	0	3	1	n.a.	1	0	0.36	0	0	0	1	1	4	1	1	1	2
Disagree	4	7		4	5		7	13		6	12		3	4	3	8	7	5	8	6	6	13
Neither disagree or agree	13	15		9	18		14	15		12	17		10	7	21	12	19	15	15	14	15	13
Agree	59	58		58	56		52	47		59	52		60	56	46	51	55	51	54	55	55	50
Strongly agree	24	20		28	19		24	24		22	18		26	33	30	28	17	23	22	24	23	22
Does not apply or Don't know	0	0		0	1		0	0		1	1		0	0	0	0	0	1	0	1	0	0
N	630	436		621	489		151	104		157	103		270	276	62	205	486	534	524	569	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.39. D6b: People at all levels of this practice openly talk about what is and isn't working

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.65	0	1	0.63	2	1	n.a.	0	0	n.a.	0	0	1	3	3	4	2	1	2	2
Disagree	11	9		5	5		10	15		8	15		3	3	9	8	11	9	11	11	10	12
Neither disagree or agree	11	11		11	12		11	8		11	12		6	7	15	12	10	11	11	11	8	12
Agree	55	58		57	56		54	52		58	54		54	51	39	48	54	51	50	50	54	47
Strongly agree	23	21		27	26		24	25		23	20		36	38	35	29	21	25	25	26	24	26
Does not apply or Don't know	1	0		0	0		0	0		0	0		0	0	0	1	1	1	0	1	1	0
N	630	436		620	487		151	104		157	103		270	275	62	206	487	535	525	569	321	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

E.44

Table E.40. D6c: After trying something new, people in the practice take time to think about how it worked

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	1	0.65	0	0	0.06	3	2	0.33	0	0	n.a.	0	0	6	3	3	3	2	2	2	2
Disagree	9	11		8	7		17	11		9	18		8	3	10	8	11	8	12	12	13	15
Neither disagree or agree	21	20		16	20		15	25		15	18		15	11	5	17	19	20	14	18	17	19
Agree	54	56		57	60		49	40		60	48		55	60	53	48	52	51	55	48	50	47
Strongly agree	13	12		20	12		16	21		15	16		22	25	26	24	13	17	16	19	18	17
Does not apply or Don't know	0	0		0	1		0	1		0	0		0	1	0	1	2	1	1	1	0	0
N	628	435		620	486		151	104		156	103		270	275	62	203	486	536	525	569	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.41. D6g: When we experience a problem in this practice, we make a serious effort to figure out what's really going on

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	n.a.	0	1	0.37	2	1	0.24	1	0	n.a.	0	0	1	4	2	4	4	2	2	2
Disagree	4	5		2	4		11	11		5	12		2	1	6	7	10	8	11	9	10	12
Neither disagree or agree	9	7		11	10		13	6		12	6		5	5	11	13	13	13	13	13	13	15
Agree	54	61		49	51		46	52		56	57		50	41	51	45	51	47	46	47	47	43
Strongly agree	32	27		38	34		28	30		27	24		43	51	31	30	23	27	26	28	27	27
Does not apply or Don't know	0	0		0	1		1	0		0	0		0	1	0	2	1	0	0	1	1	1
N	628	436		620	488		151	104		157	103		270	276	62	205	486	534	525	567	321	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.42. Reciprocal Learning scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Reciprocal Learning	0.69	0.65	0	0.71	0.68	0.01	0.68	0.66	0.52	0.71	0.72	0.69	0.75	0.78	0.71	0.7	0.67	0.69	0.69	0.71	0.67	0.69
N	620	434		622	483		147	102		157	101		265	274	63	208	485	531	518	565	322	417

Note: This scale includes items D7a-e. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.43. D7a: Respondent is frequently taught new things by other people in the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	3	0.05	1	1	0.34	2	3	n.a.	0	0	n.a.	1	0	2	3	0	1	2	0	2	1
Disagree	10	12		10	14		8	9		11	8		8	2	12	10	14	11	11	8	12	13
Neither disagree or agree	23	29		20	23		21	19		21	15		13	15	10	14	18	19	18	17	16	16
Agree	49	47		53	49		49	52		46	49		56	57	50	45	54	50	53	52	54	53
Strongly agree	16	9		16	12		19	17		21	28		21	24	26	28	13	19	16	23	16	17
Does not apply or Don't know	1	1		1	1		0	0		1	0		0	1	0	0	1	0	0	0	0	0
N	619	434		621	483		147	102		157	101		265	274	63	207	485	529	517	565	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.44. D7b: Respondent learns a lot about how to do the job by talking with other people in the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	2	0.02	0	0	0.37	2	3	0.6	0	0	n.a.	2	0	2	4	1	2	2	1	1	2
Disagree	11	13		11	14		10	12		7	5		7	3	13	11	12	12	10	8	12	10
Neither disagree or agree	24	31		25	26		19	18		25	21		15	14	13	16	17	16	19	16	20	18
Agree	47	45		46	46		47	53		43	47		52	55	40	43	57	50	52	54	51	50
Strongly agree	16	8		17	12		21	14		23	27		23	27	29	26	12	21	16	22	14	20
Does not apply or Don't know	1	1		1	1		1	0		1	0		2	2	2	1	1	1	1	0	1	1
N	619	434		620	483		147	102		157	101		265	274	63	208	485	527	515	565	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.45. D7c: When practice experiences a problem, they examine the issue carefully to come to an understanding of the problem and why it occurred

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	1	0.61	0	1	0.33	4	0	n.a.	1	0	0.69	0	0	4	4	1	3	4	2	3	1
Disagree	8	8		7	5		12	12		7	8		6	3	10	7	12	11	12	11	11	12
Neither disagree or agree	18	18		14	14		10	22		15	19		10	8	13	19	19	16	17	17	22	21
Agree	57	56		58	64		59	52		60	53		61	62	39	47	53	52	52	51	49	48
Strongly agree	17	16		21	16		16	15		17	19		24	27	34	21	12	17	16	18	15	16
Does not apply or Don't know	0	1		0	0		0	0		0	1		0	0	0	1	2	0	0	0	0	1
N	619	434		621	483		147	102		157	101		265	274	62	206	485	531	518	564	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.46. D7d: Practice frequently learns about new things together as a group

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	2	0.02	1	1	0.02	3	3	0.62	0	1	n.a.	0	0	6	4	2	4	3	2	4	2
Disagree	10	15		8	13		16	20		13	18		6	4	13	12	13	14	13	11	14	16
Neither disagree or agree	17	23		18	17		17	23		20	18		10	10	13	21	22	15	17	16	16	12
Agree	57	49		53	56		50	42		52	42		62	59	39	40	47	50	48	50	52	54
Strongly agree	16	11		20	12		12	11		15	20		22	27	26	22	15	17	19	20	14	15
Does not apply or Don't know	0	0		0	0		1	0		0	0		0	0	3	1	1	0	0	0	0	0
N	619	432		622	482		147	102		157	101		265	273	62	208	484	528	517	563	321	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.47. D7e: Respondent learns how to do things by sharing knowledge with team members

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.02	0	0	0.04	2	2	0.8	0	1	0.57	0	0	2	1	1	2	1	1	2	1
Disagree	3	7		3	5		7	5		2	5		2	1	1	4	5	5	3	3	4	3
Neither disagree or agree	14	18		15	18		14	18		14	11		7	4	14	11	13	13	11	10	15	11
Agree	64	60		60	64		58	57		64	61		66	62	47	53	65	59	63	61	63	63
Strongly agree	17	15		21	13		19	18		18	22		25	32	34	29	15	20	20	24	16	22
Does not apply or Don't know	1	0		0	0		1	0		1	0		1	1	1	2	0	1	1	0	0	0
N	618	434		621	481		147	102		157	101		265	274	62	207	484	529	518	564	322	416

E.48

Table E.48. E1a: In a typical week, how often does respondent participate in activities focused on quality improvement at this practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	4	4	0	3	6	0	5	15	0.04	4	6	0	2	2	12	7	15	12	7	6	5	10
Rarely	17	27		18	26		34	37		22	41		5	6	4	15	21	20	18	19	17	17
Sometimes	42	46		43	47		36	34		48	40		25	31	34	41	38	38	44	43	43	40
Frequently	37	23		36	21		26	15		26	12		68	62	49	38	25	30	31	32	35	33
N	629	441		620	488		149	102		157	102		269	271	63	205	483	529	521	563	323	414

Table E.49. F2f: How often in the past 12 months respondent has generated reports on specific quality measures (e.g., the percentage of patients that have received recommended colon cancer screening)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	25	28	0.21	35	32	0.49	21	15	0.54	27	17	0.22	46	51	27	38	10	12	28	35	23	27
Function part of your work tasks and you used occasionally	27	23		23	26		18	24		17	21		20	17	13	15	3	7	13	17	11	11
Function part of your work tasks but you never used	14	14		10	13		17	11		11	20		3	4	6	5	3	6	10	8	11	14
Function not part of your work tasks	27	23		26	21		33	38		38	33		30	26	47	38	81	69	41	36	46	42
Function not in EHR or not activated	7	12		7	7		12	11		7	9		1	2	6	4	3	7	8	4	8	6
N	618	427		612	480		147	95		159	100		260	271	63	202	463	497	507	549	317	405

E.49

Table E.50. G1: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, in the past 12 months

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Yes	81	78	0.31	88	71	0	59	36	0	66	41	0	76	85	53	64	31	34	39	50	42	49
N	629	443		625	490		148	103		158	103		266	269	63	201	472	512	507	564	321	407

Table E.51. G2a: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from a private insurance plan in the past 12 months. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
G2a.1: Feedback on Patient Experience	28	22	0.13	32	22	0.03	14	10	0.54	18	5	0.02	30	34	23	26	16	16	19	16	18	22
G2a.2: Feedback on Quality	63	57	0.18	63	55	0.06	29	32	0.75	40	31	0.31	54	58	55	45	16	17	26	23	20	29
G2a.3: Feedback on Cost	63	54	0.03	57	44	0.01	37	33	0.66	39	27	0.2	38	54	43	40	15	17	25	19	18	30
G2a.4: Feedback on Utilization	73	64	0.02	68	59	0.06	44	49	0.61	48	37	0.22	57	70	46	58	14	18	29	29	30	45
G2a.5: No Feedback	7	10	0.23	12	15	0.38	37	23	0.19	28	41	0.16	15	15	27	25	61	61	43	50	46	40
N	499	338		540	329		88	36		102	44		196	218	36	123	137	155	172	259	124	204

Table E.52. G2b: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from a state health agency in the past 12 months. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	Comp	p- value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
G2b.1: Feedback on Patient Experience	4	2	0.35	6	6	0.9	1	3	0.47	8	4	0.32	10	8	2	9	3	10	9	12	8	11
G2b.2: Feedback on Quality	14	10	0.14	13	13	0.95	8	9	0.87	12	12	0.97	28	22	24	14	13	17	17	16	6	16
G2b.3: Feedback on Cost	10	9	0.68	11	7	0.09	9	11	0.73	11	11	0.99	13	19	4	14	6	8	10	8	7	11
G2b.4: Feedback on Utilization	17	11	0.05	15	11	0.17	13	18	0.53	12	9	0.63	24	27	11	21	6	12	17	14	16	23
G2b.5: No Feedback	76	83	0.04	75	77	0.64	78	75	0.71	81	79	0.79	56	66	72	68	78	74	67	71	77	64
N	478	326		517	312		87	36		99	41		183	209	36	120	133	150	164	251	125	195

Table E.53. G2c: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from Medicaid in the past 12 months. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
G2c.1: Feedback on Patient Experience	4	3	0.62	6	3	0.04	0	7	0.18	11	0	0.01	10	14	2	10	7	11	14	15	11	13
G2c.2: Feedback on Quality	17	12	0.14	23	15	0.06	9	13	0.53	20	12	0.26	34	32	21	16	8	16	16	20	11	15
G2c.3: Feedback on Cost	18	13	0.16	22	6	0	14	16	0.81	21	14	0.35	24	30	7	19	8	13	14	17	16	21
G2c.4: Feedback on Utilization	25	19	0.11	29	15	0	17	22	0.58	25	18	0.33	35	37	13	33	12	14	20	24	21	27
G2c.5: No Feedback	65	75	0.03	60	73	0	75	59	0.12	60	68	0.45	47	51	70	56	75	68	64	57	64	62
N	481	328		522	312		86	36		99	43		194	213	36	121	134	151	167	256	124	199

Table E.54. G2d: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from Medicare in the past 12 months. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
G2d.1: Feedback on Patient Experience	7	5	0.32	25	10	0	2	2	0.84	15	1	0	19	44	2	32	8	19	15	21	15	21
G2d.2: Feedback on Quality	23	20	0.4	41	23	0	18	16	0.75	32	27	0.62	49	61	29	40	13	22	20	27	18	26
G2d.3: Feedback on Cost	23	14	0	42	16	0	22	17	0.58	31	16	0.09	42	58	15	47	15	20	19	21	23	34
G2d.4: Feedback on Utilization	33	24	0.03	46	24	0	20	21	0.95	38	23	0.09	48	65	21	58	15	21	24	33	26	43
G2d.5: No Feedback	56	63	0.09	39	60	0	66	52	0.17	45	51	0.51	30	21	54	28	67	55	57	46	50	43
N	483	329		531	312		87	37		99	44		190	219	36	123	134	156	172	253	126	199

Table E.55. G2d: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from Medicare in the past 12 months, by whether the respondent's practice is in a system* and practice size. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Respondent's practice is in a system																						
G2d.1: Feedback on Patient Experience	5	3	0.43	18	5	0.01	3	0	0.35	13	0	0.13	17	28	0	28	4	11	17	18	16	20
G2d.2: Feedback on Quality	20	14	0.25	33	15	0.01	15	10	0.71	39	25	0.4	45	51	35	31	2	15	12	25	17	22
G2d.3: Feedback on Cost	13	9	0.33	30	15	0.08	18	7	0.34	35	30	0.79	30	50	3	45	13	11	14	19	23	28
G2d.4: Feedback on Utilization	26	24	0.8	36	10	0	9	10	0.89	31	35	0.82	36	56	16	58	10	12	19	32	19	38
G2d.5: No Feedback	66	68	0.76	49	71	0.03	72	72	0.99	41	50	0.62	38	31	52	30	78	64	65	49	55	45
N	192	89		227	73		32	13		38	12		78	94	23	63	70	80	86	135	58	104
Respondent's practice is not in a system																						
G2d.1: Feedback on Patient Experience	10	7	0.49	31	10	0	1	0	0.4	17	3	0.07	22	57	6	36	12	29	13	25	15	22
G2d.2: Feedback on Quality	25	20	0.35	48	26	0	20	23	0.8	26	29	0.85	51	70	20	49	25	30	28	30	19	31
G2d.3: Feedback on Cost	32	15	0	53	15	0	25	11	0.23	28	19	0.48	52	65	38	49	17	30	25	24	23	41
G2d.4: Feedback on Utilization	40	21	0.01	55	32	0	27	46	0.18	43	28	0.26	59	72	34	59	20	31	30	33	31	49
G2d.5: No Feedback	46	64	0.01	29	56	0	63	41	0.17	47	38	0.52	24	12	56	26	55	44	48	42	45	41
N	288	128		304	146		55	15		61	18		111	125	12	60	64	76	86	118	68	95
Respondent's practice has 1 clinician																						
G2d.1: Feedback on Patient Experience	19	23	0.71	48	12	0.01	0	n.a.	n.a.	0	0	n.a.	22	45	0	35	0	37	28	38	12	26
G2d.2: Feedback on Quality	45	38	0.6	59	15	0	44	n.a.	n.a.	0	0	n.a.	38	73	0	46	22	26	47	47	31	47
G2d.3: Feedback on Cost	43	31	0.35	68	4	0	35	n.a.	n.a.	0	0	n.a.	35	70	0	58	9	8	45	45	25	52
G2d.4: Feedback on Utilization	52	53	0.97	66	15	0	58	n.a.	n.a.	48	0	0.19	40	71	0	53	21	16	47	41	48	53
G2d.5: No Feedback	33	36	0.77	20	62	0	42	n.a.	n.a.	52	100	0.19	30	10	100	19	64	37	27	26	39	39
N	47	32		60	28		5	0		7	1		31	30	1	16	16	13	16	21	10	20

Table E.55 (continued)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Respondent's practice has 2 to 3 clinicians																						
G2d.1: Feedback on Patient Experience	10	4	0.19	32	15	0.07	0	0	n.a.	21	0	0.03	27	50	9	40	16	21	17	25	18	21
G2d.2: Feedback on Quality	24	15	0.16	46	28	0.04	23	12	0.48	35	38	0.87	47	66	28	58	8	22	29	25	28	37
G2d.3: Feedback on Cost	35	10	0	44	22	0.02	30	23	0.69	42	41	0.93	42	54	9	59	20	32	17	13	20	45
G2d.4: Feedback on Utilization	38	18	0.01	49	27	0.01	25	42	0.39	48	40	0.69	46	63	29	72	12	21	34	29	45	53
G2d.5: No Feedback	51	71	0.01	32	59	0	63	36	0.21	42	41	0.97	37	17	61	20	68	42	52	53	31	42
N	161	70		174	69		20	8		24	14		55	74	10	26	38	44	35	68	26	37
Respondent's practice has 4 to 5 clinicians																						
G2d.1: Feedback on Patient Experience	10	1	0	25	2	0	3	0	0.48	16	0	0.34	13	40	0	23	5	14	6	22	22	24
G2d.2: Feedback on Quality	22	20	0.71	40	13	0	9	33	0.21	43	25	0.44	40	59	37	29	13	21	17	35	26	22
G2d.3: Feedback on Cost	26	12	0.01	47	12	0	23	17	0.75	36	0	0.12	47	59	23	46	17	21	12	27	44	36
G2d.4: Feedback on Utilization	32	28	0.63	49	29	0.07	26	66	0.1	41	20	0.42	60	76	40	66	13	23	16	41	35	56
G2d.5: No Feedback	53	56	0.72	35	63	0.01	63	34	0.23	33	55	0.41	22	13	23	26	65	64	68	35	29	36
N	129	91		143	73		24	5		31	5		52	56	5	23	27	42	52	69	29	57
Respondent's practice has 6 or more clinicians																						
G2d.1: Feedback on Patient Experience	4	3	0.68	19	9	0.02	2	4	0.74	15	2	0.05	18	40	0	30	6	18	18	17	13	19
G2d.2: Feedback on Quality	21	18	0.54	37	25	0.05	17	13	0.7	27	23	0.78	62	55	31	33	14	22	15	21	11	22
G2d.3: Feedback on Cost	16	12	0.36	35	16	0	16	16	0.99	26	6	0.11	40	59	16	39	13	14	22	19	17	27
G2d.4: Feedback on Utilization	31	17	0.03	40	23	0.01	9	7	0.74	30	16	0.2	42	56	17	50	16	20	24	28	15	32
G2d.5: No Feedback	60	70	0.17	46	59	0.05	74	60	0.3	53	52	0.93	31	35	54	35	68	59	54	51	63	48
N	146	136		154	142		38	24		37	24		52	59	20	58	53	57	69	95	61	85

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

*We defined whether the practice is in a healthcare system or not using responses to a question on the CPC practice survey that asked practices to describe the medical organization that employs the clinicians at the practice site. We considered practices with these responses to be in a healthcare system: group or staff model HMO; network of clinician practices owned by a hospital, hospital system, or medical school; or hospital or medical school.

Table E.56. G2e: Respondent has seen feedback reports on the performance of the practice, or clinicians within the practice, from other organizations in the past 12 months. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
G2e.1: Feedback on Patient Experience	18	23	0.22	18	22	0.4	25	29	0.66	19	23	0.66	16	20	24	11	28	28	28	20	13	18
G2e.2: Feedback on Quality	15	21	0.06	15	16	0.8	22	21	0.9	10	12	0.69	15	13	30	8	17	21	24	13	16	12
G2e.3: Feedback on Cost	8	11	0.18	7	11	0.11	10	0	0	5	0	0.07	6	10	14	5	3	9	8	8	6	6
G2e.4: Feedback on Utilization	10	11	0.51	11	13	0.35	18	12	0.47	9	17	0.24	10	11	17	12	8	15	18	14	15	9
G2e.5: No Feedback	75	67	0.04	75	68	0.11	59	64	0.58	73	72	0.96	74	75	58	79	66	62	57	69	72	78
N	502	340		541	331		91	38		103	45		199	228	36	127	146	164	186	266	128	206

E.54

Table E.57. G3a: In response to the feedback reports on the performance of the practice or clinicians in the practice seen over the past 12 months, there have been changes to the work that the respondent performs

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Yes, major changes	11	5	0.01	10	9	0.01	18	3	0.19	14	3	0.19	30	15	28	25	21	14	23	18	29	18
Yes, minor changes	53	52		62	50		49	63		59	57		54	62	40	51	44	50	48	57	51	51
No changes	32	41		24	39		26	29		24	35		13	19	25	19	20	19	21	17	8	24
Does not apply or Don't know	3	2		3	3		7	5		3	4		3	4	7	5	16	17	9	8	13	6
N	501	342		541	334		91	39		102	46		200	228	37	127	149	169	194	270	131	208

Table E.58. G3b: In response to the feedback reports on the performance of the practice or clinicians in the practice seen over the past 12 months, there have been changes to the work performed by others in the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Yes, major changes	13	6	0.01	12	9	0.26	12	3	0.19	11	4	0.41	32	19	37	17	28	18	26	20	25	15
Yes, minor changes	40	34		47	41		42	50		50	49		55	64	44	54	38	48	41	53	50	53
No changes	24	34		21	27		15	26		17	26		7	10	8	11	12	9	15	14	5	11
Does not apply or Don't know	23	26		20	22		31	21		22	22		5	7	11	18	23	25	18	12	20	21
N	501	341		540	333		91	39		102	46		201	228	37	126	148	167	193	269	130	206

E.55

Table E.59. G4a: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how clear was the presentation of information?

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Extremely	19	14	0.03	17	17	0.98	28	36	n.a.	28	10	0.07	23	27	40	34	33	36	32	40	34	26
Somewhat	58	66		61	59		65	57		61	82		62	67	47	61	55	53	56	48	60	65
Not very	21	15		19	20		7	7		7	5		15	5	13	5	8	8	10	10	6	8
Not at all	2	5		3	4		0	0		4	4		1	1	0	0	4	3	2	3	0	1
N	503	339		536	332		90	39		101	43		196	229	34	124	144	162	187	266	127	203

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.60. G4b: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how timely was the information?

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Extremely	14	11	0.42	8	13	0.31	17	25	0.8	17	11	0.32	20	16	25	23	32	28	29	32	22	18
Somewhat	47	52		47	42		57	51		54	71		49	52	54	46	53	51	58	48	60	59
Not very	33	29		36	36		23	22		27	16		28	24	21	28	12	15	11	17	16	20
Not at all	6	8		9	8		3	2		1	2		3	8	0	4	4	6	3	3	1	3
N	502	339		536	332		90	39		101	43		197	228	33	123	143	162	187	266	127	202

Table E.61. G4c: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how accurate was the information?

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Extremely	12	7	0.06	11	10	0.66	21	21	0.98	19	16	0.59	20	24	34	34	30	28	33	34	22	23
Somewhat	48	48		56	54		58	58		59	69		61	67	55	57	57	59	54	50	55	65
Not very	33	32		28	28		18	16		21	16		18	8	11	8	10	10	11	12	20	10
Not at all	7	13		5	8		3	4		1	0		2	1	0	1	4	3	2	3	2	2
N	497	336		532	326		89	39		100	43		191	228	33	122	141	162	186	264	127	201

Table E.62. G4d: Please think back to the most recent feedback report that you have seen from any source on the performance of your practice. In this report, how useful was the information?

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Extremely	9	5	0	10	9	0.11	19	21	0.95	15	7	0.34	26	22	29	28	37	35	34	32	24	21
Somewhat	41	38		48	46		55	49		58	62		55	67	54	58	49	54	45	49	61	58
Not very	38	31		34	30		20	23		19	28		17	10	16	13	10	7	19	12	11	13
Not at all	13	25		8	16		6	7		7	4		2	1	0	1	5	4	3	6	4	7
N	502	340		539	332		90	39		101	43		196	229	34	124	142	161	187	266	126	202

Table E.63. I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.

	Primary Care Physician			NP/PA			Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016			2016			2016	2016	2016	2016	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC
Care management for high-risk patients	74	72	0.57	69	63	0.43	15	75	5	30	52
Care coordination with specialists or post-hospital discharge follow-up	75	76	0.85	63	68	0.5	22	82	17	42	56
Quality improvement (systematically using data from your practice to improve care quality)	65	58	0.14	41	31	0.15	67	54	17	42	47
Linking patients to community services (e.g., social services, Meals on Wheels)	53	57	0.33	60	67	0.28	22	74	15	43	58
None of the above	11	12	0.64	11	15	0.41	30	7	69	34	21
N	628	492		155	102		276	205	531	562	407

d. Care coordination across the medical neighborhood (Milestone 6)

Table E.64. D8a: Ability to provide optimal patient-centered care is limited by: lack of available specialists for patient referrals

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	46	46	0.09	40	37	0.26	47	37	0.45	33	36	0.71	44	30	43	31	40	33	46	39	49	33
Limits somewhat	43	42		49	51		42	50		51	51		36	49	35	43	24	29	35	36	33	42
Limits a great deal	7	11		11	12		9	11		14	9		11	16	11	20	6	10	9	15	9	21
Does not apply or Don't know	3	1		1	0		1	1		3	4		9	5	10	6	30	28	10	10	10	5
N	620	434		618	485		147	101		157	101		263	273	62	208	484	525	514	564	321	417

Table E.65. D8b: Ability to provide optimal patient-centered care is limited by: lack of local community resources for patient referrals (e.g., health education services, family counseling, etc.)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	25	27	0.02	25	23	0.51	23	34	0.07	25	32	0.13	40	26	37	30	43	41	48	44	42	36
Limits somewhat	53	45		50	49		53	51		46	47		38	50	43	46	24	21	34	35	37	40
Limits a great deal	20	27		23	27		23	13		26	15		13	17	12	19	4	8	9	12	11	20
Does not apply or Don't know	2	0		1	1		1	2		2	6		9	7	8	5	29	30	9	9	10	3
N	621	434		621	483		147	102		157	101		264	272	62	208	485	525	515	562	320	415

Table E.66. D8c: Ability to provide optimal patient-centered care is limited by: lack of timely information regarding patient care from providers outside the practice

	Primary Care Physician			NP/PA			Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016			2016			2016	2016	2016	2016	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC
Does not limit	36	32	0.51	28	21	0.43	22	24	28	30	24
Limits somewhat	53	57		61	70		63	54	34	47	55
Limits a great deal	10	11		10	9		9	14	7	16	19
Does not apply or Don't know	1	0		1	0		5	8	31	8	3
N	615	485		157	101		272	206	526	562	417

Table E.67. D8d: Ability to provide optimal patient-centered care is limited by: challenges in communicating with specialists in or outside the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	50	51	0.43	40	40	0.58	43	59	0.1	37	40	0.95	38	29	41	29	44	33	49	37	44	30
Limits somewhat	39	39		49	51		46	34		56	52		45	56	43	51	23	31	35	44	36	54
Limits a great deal	9	10		9	8		8	6		5	5		9	7	8	13	4	7	7	12	10	12
Does not apply or Don't know	2	1		1	0		3	1		2	2		8	7	8	7	29	30	10	8	9	4
N	620	432		620	482		147	102		157	101		262	272	62	206	477	526	511	561	318	414

Table E.68. E1d: In a typical week, how often does respondent assist patients in accessing health care services from other providers (e.g., providing referrals, obtaining prior authorizations from insurance providers, etc.)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	2	2	0.66	2	1	0.28	1	2	0.82	0	2	0.16	18	27	12	9	36	33	6	5	6	5	
Rarely	7	6		5	3		7	10		7	2		23	19	6	10	12	14	10	8	7	14	
Sometimes	17	21		19	24		31	28		27	20		31	23	20	28	17	19	23	22	25	22	
Frequently	73	70		74	72		60	60		65	76		28	31	62	53	36	34	62	66	62	58	
N	631	443		620	490		150	103		156	102		267	270	63	205	485	529	521	565	324	417	

E.60

Table E.69. E1i: In a typical week, how often does respondent communicate with other health care providers outside this practice to obtain their professional opinion about patients' health issues

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	1	1	0.17	1	1	0.11	3	5	0.72	2	3	0.12	44	53	25	24	71	71	30	25	19	20
Rarely	16	22		17	23		28	30		26	42		19	18	24	20	11	10	25	23	28	26
Sometimes	57	49		53	53		57	54		58	45		24	18	37	34	10	8	27	33	32	35
Frequently	27	28		29	23		12	11		13	11		13	11	15	22	8	11	18	19	21	19
N	630	443		621	490		150	103		157	102		267	267	63	205	484	525	519	564	324	414

Table E.70. I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.

	Primary Care Physician			NP/PA			Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2016			2016			2016		2016		2016		2016		2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC		
	Care management for high-risk patients	74	72	0.57	69	63	0.43	15	75	5	30	52				
Care coordination with specialists or post-hospital discharge follow-up	75	76	0.85	63	68	0.5	22	82	17	42	56					
Quality improvement (systematically using data from your practice to improve care quality)	65	58	0.14	41	31	0.15	67	54	17	42	47					
Linking patients to community services (e.g., social services, Meals on Wheels)	53	57	0.33	60	67	0.28	22	74	15	43	58					
None of the above	11	12	0.64	11	15	0.41	30	7	69	34	21					
N	628	492		155	102		276	205	531	562	407					

E.61

e. Health information technology use (Milestone 9)

Table E.71. F1: Practice has an EHR system for managing patient care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
	Yes	100	98	0	100	98	0	100	93	0.04	100	97	0.1	99	100	100	100	98	96	100	98	100
N	635	447		627	494		151	103		159	103		269	275	63	206	483	532	522	567	325	416

Table E.72. EHR usage scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
EHR use	0.75	0.72	0.04	0.75	0.72	0.04	0.7	0.65	0.08	0.73	0.69	0.1	0.6	0.6	0.67	0.65	0.46	0.48	0.66	0.69	0.64	0.65
N	622	446		613	491		148	103		159	103		266	271	63	202	475	517	516	562	322	409

Note: This scale includes items F2a-g. Each of the items were reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing.

Table E.73. F2a: How often in the past 12 months respondent has flagged or transferred patient data to other providers within the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	65	59	0.35	58	54	0	56	61	0.62	59	59	0.41	54	45	73	63	44	42	64	59	62	68
Function part of your work tasks and you used occasionally	21	25		29	27		26	27		29	32		18	21	16	13	14	15	16	14	18	12
Function part of your work tasks but you never used	3	2		1	7		3	4		3	0		2	1	2	2	2	3	2	3	1	5
Function not part of your work tasks	8	9		8	6		9	5		6	5		24	32	8	18	36	37	13	19	15	12
Function not in EHR or not activated	3	4		3	6		6	3		4	4		2	2	1	3	3	4	5	5	5	4
N	616	426		611	477		148	96		159	100		261	270	62	201	462	491	511	550	319	403

Table E.74. F2b: How often in the past 12 months respondent has flagged or transferred patient data to other providers outside the practice organization

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	24	23	0.85	26	24	0.8	21	20	1	22	11	0.33	18	22	25	27	23	24	32	36	34	35
Function part of your work tasks and you used occasionally	26	24		26	29		24	25		27	30		24	26	30	31	17	14	29	21	24	20
Function part of your work tasks but you never used	4	6		7	7		6	6		9	11		8	3	8	4	3	6	6	5	4	8
Function not part of your work tasks	19	20		17	18		18	18		15	16		39	42	21	26	47	46	19	23	20	23
Function not in EHR or not activated	27	27		25	21		32	31		27	32		11	8	17	13	10	10	14	14	18	14
N	618	425		610	477		146	96		158	100		262	270	62	198	459	495	504	551	316	404

Table E.75. F2c: How often in the past 12 months respondent has tracked communications with other health care providers

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	70	69	0.69	61	54	0.52	67	71	0.96	68	53	n.a.	41	32	65	53	27	29	52	52	66	54
Function part of your work tasks and you used occasionally	18	19		21	23		18	16		19	31		19	23	25	24	16	16	24	26	18	23
Function part of your work tasks but you never used	1	2		4	4		1	1		0	0		4	3	1	3	2	5	5	5	2	4
Function not part of your work tasks	6	6		9	10		5	4		7	8		34	38	9	14	52	43	14	12	10	11
Function not in EHR or not activated	5	5		6	8		9	7		6	9		2	4	0	7	3	6	5	4	4	8
N	615	424		610	478		148	96		159	100		263	269	63	200	462	495	504	546	316	403

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.76. F2d: How often in the past 12 months respondent has reviewed images of test results electronically (e.g., using a picture archiving and communication system or PACS)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	66	57	0.15	62	54	0.26	59	58	0.91	63	60	0.72	29	28	38	43	11	21	40	50	38	47
Function part of your work tasks and you used occasionally	12	17		14	19		12	12		12	16		7	10	11	12	6	8	16	14	13	14
Function part of your work tasks but you never used	2	2		3	4		4	4		4	1		3	3	4	2	3	4	6	5	6	7
Function not part of your work tasks	5	6		4	5		5	8		6	8		56	51	40	34	74	59	29	24	30	20
Function not in EHR or not activated	16	19		16	18		21	18		16	15		5	8	7	9	6	8	11	7	13	12
N	617	425		612	477		147	96		159	99		263	269	62	199	462	495	504	546	320	401

Table E.77. F2e: How often in the past 12 months respondent has reviewed multiple test results for a patient and graphed changes over time

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	59	61	0.33	65	63	0.33	58	58	0.97	62	75	0.08	29	30	35	35	9	15	33	42	31	43
Function part of your work tasks and you used occasionally	23	19		20	19		19	22		21	12		9	11	24	20	4	8	18	21	19	17
Function part of your work tasks but you never used	5	5		6	8		7	6		5	4		5	4	4	4	4	5	9	7	9	8
Function not part of your work tasks	3	6		6	3		7	5		4	1		55	53	32	34	78	66	32	25	30	24
Function not in EHR or not activated	10	9		4	7		10	9		7	8		3	2	5	7	5	6	9	5	11	8
N	618	429		611	477		148	96		158	100		263	270	63	202	463	494	507	550	319	402

Table E.78. F2f: How often in the past 12 months respondent has generated reports on specific quality measures (e.g., the percentage of patients that have received recommended colon cancer screening)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	25	28	0.21	35	32	0.49	21	15	0.54	27	17	0.22	46	51	27	38	10	12	28	35	23	27
Function part of your work tasks and you used occasionally	27	23		23	26		18	24		17	21		20	17	13	15	3	7	13	17	11	11
Function part of your work tasks but you never used	14	14		10	13		17	11		11	20		3	4	6	5	3	6	10	8	11	14
Function not part of your work tasks	27	23		26	21		33	38		38	33		30	26	47	38	81	69	41	36	46	42
Function not in EHR or not activated	7	12		7	7		12	11		7	9		1	2	6	4	3	7	8	4	8	6
N	618	427		612	480		147	95		159	100		260	271	63	202	463	497	507	549	317	405

Table E.79. F2g: How often in the past 12 months respondent has generated After Visit Summaries for patients to take with them

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Function part of your work tasks and you used routinely	83	76	0.07	77	72	0.02	70	59	0.07	69	66	0.47	43	43	40	37	37	40	57	60	40	43
Function part of your work tasks and you used occasionally	7	11		12	14		14	13		15	12		12	9	22	12	10	14	13	15	16	18
Function part of your work tasks but you never used	2	4		3	6		5	7		3	8		2	2	1	5	2	4	5	3	4	4
Function not part of your work tasks	7	7		7	5		9	10		12	12		43	46	32	44	48	40	23	21	35	32
Function not in EHR or not activated	1	3		1	3		2	12		1	2		1	0	5	2	3	3	1	1	5	2
N	617	429		612	480		148	96		159	100		263	271	63	201	464	498	508	553	321	405

Table E.80. F3a: How often in the past 12 months respondent has responded to EHR alerts for possible drug interactions

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
You responded routinely	68	73	0.23	74	72	0.63	74	89	0	78	82	0.57	28	28	39	34	9	11	58	56	63	54
You responded occasionally	27	20		21	21		23	7		19	15		4	5	18	18	5	4	16	14	17	21
Function available but you never responded	4	5		3	5		2	3		1	0		6	4	6	7	6	5	7	6	4	6
Function not part of your work tasks	0	1		0	1		1	0		1	1		60	62	28	36	76	74	16	21	14	15
Function not in EHR or not activated	1	2		2	1		1	2		0	2		2	2	10	5	4	5	2	3	3	4
N	621	427		616	481		149	96		158	99		265	272	62	202	466	497	511	554	321	407

Table E.81. F3b: How often in the past 12 months respondent has responded to EHR alerts or reminders to the practice team for routine preventive care or chronic illness care (e.g. mammography or overdue hemoglobin A1c test for diabetes)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
You responded routinely	56	48	0.06	62	54	0.04	49	54	0.38	61	53	0.56	36	32	53	48	15	20	65	70	57	59
You responded occasionally	19	16		14	22		19	15		16	19		10	11	15	18	10	9	12	10	12	15
Function available but you never responded	2	4		4	5		3	8		1	2		5	3	4	0	7	5	3	3	2	3
Function not part of your work tasks	8	11		6	4		12	11		12	9		46	52	13	25	65	61	13	14	19	16
Function not in EHR or not activated	15	21		13	16		17	12		10	16		3	2	15	9	4	5	6	4	10	6
N	621	426		615	481		148	96		158	99		265	272	63	202	465	498	512	553	320	406

Table E.82. F3c: How often in the past 12 months respondent responded to EHR alerts or reminders to patients for routine preventive care or chronic illness care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
You responded routinely	42	38	0.02	50	43	0.03	39	40	0.16	51	39	0.19	35	29	47	46	19	26	58	64	53	50
You responded occasionally	16	12		14	17		18	9		12	9		12	12	12	17	8	7	14	10	13	15
Function available but you never responded	2	5		2	5		2	8		2	3		4	3	3	2	5	5	5	2	3	4
Function not part of your work tasks	13	10		15	10		11	13		21	23		43	49	19	25	64	55	15	18	20	22
Function not in EHR or not activated	26	34		19	26		30	31		13	26		6	7	19	10	4	8	8	6	11	8
N	620	424		613	478		148	96		158	97		265	272	63	202	465	498	509	552	317	406

E.71

Table E.83. F4a: Practice's EHR is a big help to respondent in providing quality care to patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	9	10	0.15	9	9	0.4	2	3	0.95	6	6	0.29	6	2	1	2	2	2	4	3	4	7
Disagree	11	15		12	9		9	12		8	7		2	4	0	4	2	1	4	2	6	5
Neither disagree or agree	17	11		19	25		15	14		17	9		14	20	10	10	26	26	9	13	15	14
Agree	38	37		42	41		38	38		51	49		44	47	35	48	46	48	47	44	44	46
Strongly agree	25	27		18	16		36	33		18	29		34	27	54	37	24	23	36	38	31	29
N	623	427		618	481		149	96		158	99		265	270	62	201	459	496	513	555	322	406

Table E.84. F4b: Practice's EHR provides prompts at the time of the patient visit to remind respondent of key actions to take for the patient

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	14	14	0.79	13	12	0.12	12	9	0.8	7	8	0.39	8	3	1	5	3	3	6	4	5	9
Disagree	18	21		21	17		20	18		18	14		7	4	16	16	5	3	10	11	13	14
Neither disagree or agree	19	16		11	19		18	14		23	16		13	21	12	22	36	41	16	17	20	22
Agree	36	33		42	42		33	39		40	42		43	48	33	36	38	40	42	44	39	39
Strongly agree	14	15		13	10		18	21		12	20		29	24	37	22	18	14	26	23	23	16
N	622	427		618	481		149	96		158	99		265	271	62	202	457	495	511	555	322	405

E.72

Table E.85. F4c: Practice's EHR is well integrated into the practice's daily workflow

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	6	6	0.97	6	3	0.18	4	3	0.77	4	4	0.25	6	2	1	2	2	3	5	3	4	7
Disagree	9	10		9	8		9	8		10	5		4	3	0	4	2	1	4	4	6	5
Neither disagree or agree	11	12		14	18		14	9		17	10		10	12	5	11	18	17	10	12	13	13
Agree	45	44		48	51		39	46		48	50		42	48	43	51	50	53	44	47	44	49
Strongly agree	29	28		24	20		34	33		21	32		38	36	51	32	28	26	37	34	34	26
N	623	427		617	481		149	96		158	99		265	272	63	202	462	497	512	555	322	406

Table E.86. F4d: Respondent trusts the validity of the data in the practice's EHR

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	6	6	0.81	7	4	0.28	2	4	0.6	6	3	0.35	6	4	1	2	3	2	4	4	5	7
Disagree	6	5		8	7		4	7		7	2		4	7	3	8	2	1	4	3	3	7
Neither disagree or agree	13	12		20	17		14	10		16	18		14	15	15	14	21	22	14	17	17	18
Agree	46	50		48	52		52	47		53	53		43	47	39	50	52	50	48	50	47	49
Strongly agree	29	26		18	21		28	32		18	24		33	28	42	27	22	25	30	27	28	20
N	623	426		617	481		149	96		158	99		265	272	63	202	460	497	513	555	322	406

f. Comprehensiveness of care

Table E.87. A1: The following services are provided for patients on-site, at this office:

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Nutrition counseling	58	50	0.06	66	57	0.2
Immunizations	100	96	0	95	93	0.5
Cervical cancer screening (e.g., Pap tests)	91	88	0.14	94	91	0.42
Counseling for behavior or mental health problems	62	54	0.1	61	45	0.02
Treatment of a minor laceration	89	85	0.23	93	92	0.9
N	623	491		159	101	

Table E.88. A2a: How likely the respondent is to manage the patient's condition themselves if the patient presents with: new onset low back pain

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	97	96	0.11	96	91	0.04
Somewhat likely	2	3		1	8	
Not very likely	0	1		0	1	
Not at all likely	0	1		2	1	
N	623	492		159	101	

Table E.89. A2b: How likely the respondent is to manage the patient's condition themselves if the patient presents with: amenorrhea

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	69	53	0	63	53	0.33
Somewhat likely	17	27		24	26	
Not very likely	11	12		7	12	
Not at all likely	3	8		6	9	
N	621	492		159	102	

Table E.90. A2c: How likely the respondent is to manage the patient's condition themselves if the patient presents with: depression symptoms

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	96	90	0	92	84	0.06
Somewhat likely	4	9		6	13	
Not very likely	0	1		0	3	
Not at all likely	0	1		2	0	
N	622	492		159	101	

Table E.91. A2d: How likely the respondent is to manage the patient's condition themselves if the patient presents with: diabetes symptoms

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	99	97	0.55	97	89	0.03
Somewhat likely	1	2		2	8	
Not very likely	0	1		0	2	
Not at all likely	0	0		2	1	
N	623	492		158	101	

Table E.92. A2e: How likely the respondent is to manage the patient's condition themselves if the patient presents with: sore throat symptoms

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	100	99	n.a.	97	94	0.35
Somewhat likely	0	0		1	4	
Not very likely	0	0		0	0	
Not at all likely	0	0		2	2	
N	623	492		159	102	

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.93.a. A2f: How likely the respondent is to manage the patient's condition themselves if the patient presents with: a chronic respiratory problem (such as COPD)

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	94	91	0.22	82	74	0.4
Somewhat likely	4	7		14	21	
Not very likely	1	1		2	3	
Not at all likely	0	0		3	2	
N	622	492		159	102	

Table E.93.b. A2: Average number of conditions (out of 6) that the respondent is very likely to manage themselves, rather than immediately referring the patient to a specialist

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Number of conditions	5.6	5.3	0	5.3	5.0	0.06
N	619	492		158	99	

Table E.94. A3: For patients who are admitted to the hospital, how likely the respondent or someone from the practice is to be actively involved with the patients' care during their hospital stay

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Very likely	31	30	0.29	28	23	0.13
Somewhat likely	11	6		12	5	
Not very likely	20	19		23	21	
Not at all likely	39	44		37	51	
N	616	490		158	102	

g. Barriers to providing patient-centered care

Table E.95. D8e: Ability to provide optimal patient-centered care is limited by: inadequate time for patient counseling or education

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	20	22	0.72	21	14	0.07	23	33	0.09	25	23	0.76	35	36	51	37	38	38	39	41	36	37
Limits somewhat	53	48		48	50		52	48		45	46		35	39	26	41	20	21	33	37	40	37
Limits a great deal	26	28		30	35		24	16		28	26		17	15	12	14	6	7	14	11	19	20
Does not apply or Don't know	2	2		1	1		1	3		2	5		13	10	12	8	36	34	14	11	5	5
N	621	434		620	483		146	102		157	100		264	273	62	208	485	524	511	559	320	414

Table E.96. D8f: Ability to provide optimal patient-centered care is limited by: administrative tasks unrelated to direct patient care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	20	22	0.85	16	13	0.58	25	39	0.22	29	26	0.55	27	34	22	39	37	41	39	42	38	34
Limits somewhat	42	39		37	40		46	39		40	48		40	38	48	33	19	20	28	30	32	37
Limits a great deal	36	36		46	46		23	17		26	20		22	20	20	15	6	6	16	12	14	20
Does not apply or Don't know	2	2		1	1		6	5		4	6		11	7	10	12	37	33	18	17	15	10
N	620	433		622	484		147	102		157	101		264	273	61	205	483	520	511	565	316	416

Table E.97. D8g: Ability to provide optimal patient-centered care is limited by: limited time to connect patients to local community resources (e.g., health education services, family counseling, etc.)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	21	18	0.59	25	19	0.21	23	32	0.01	26	21	0.1	33	34	38	42	36	38	44	42	41	40
Limits somewhat	57	58		56	57		52	52		54	62		43	48	38	39	24	21	34	34	40	44
Limits a great deal	19	22		18	22		24	10		18	10		11	8	10	11	3	6	8	12	9	11
Does not apply or Don't know	2	2		1	1		1	6		2	7		12	10	14	8	37	36	13	12	10	5
N	619	434		620	482		147	102		157	100		262	269	62	206	484	524	513	562	317	416

E.79

Table E.98. D8h: Ability to provide optimal patient-centered care is limited by: low levels of engagement from patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	27	29	0.38	24	29	0.36	26	26	0.71	23	33	0.14	22	18	17	19	28	29	31	26	29	24
Limits somewhat	58	53		62	58		57	55		59	54		51	60	47	50	33	29	46	44	48	47
Limits a great deal	12	16		13	11		16	14		16	9		16	18	26	23	6	11	13	18	15	23
Does not apply or Don't know	3	2		1	2		2	4		2	4		11	5	9	8	34	32	11	11	9	5
N	619	433		620	485		147	102		157	101		262	273	62	207	479	517	509	560	322	413

Table E.99. D8i: Ability to provide optimal patient-centered care is limited by: insufficient number or type of staff employed at the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	48	46	0.96	43	46	0.48	55	46	0.1	48	43	0.48	41	49	42	34	35	41	37	41	37	41
Limits somewhat	35	37		41	38		24	35		35	34		36	36	28	37	32	25	31	30	33	30
Limits a great deal	13	12		12	13		18	12		12	12		14	12	22	21	16	17	24	20	19	21
Does not apply or Don't know	4	4		4	2		3	7		5	11		10	3	8	9	18	17	8	9	11	7
N	617	433		621	484		147	102		157	101		262	272	62	207	486	524	512	563	319	413

E.80

Table E.100. D8j: Ability to provide optimal patient-centered care is limited by: challenges with Electronic Health Records (EHRs)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Does not limit	28	27	0.42	23	20	0.17	35	38	0.1	34	36	0.08	46	39	54	53	47	44	47	48	46	41
Limits somewhat	38	43		41	47		46	37		48	38		36	43	35	31	26	28	34	34	38	36
Limits a great deal	33	28		36	32		18	17		19	18		13	14	5	15	8	6	14	11	15	19
Does not apply or Don't know	1	2		0	1		1	7		0	7		5	4	6	2	19	23	5	7	1	4
N	615	433		619	484		147	102		157	101		264	272	62	207	486	527	513	566	321	415

Table E.101. D8k: Ability to provide optimal patient-centered care is limited by: inadequate financial incentives from payers

	Primary Care Physician						NP/PA					
	2013-2014			2016			2013-2014			2016		
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value
Does not limit	23	23	0.42	20	24	0.12	22	26	0.73	28	36	0.02
Limits somewhat	38	34		45	36		41	36		43	27	
Limits a great deal	31	37		29	33		16	19		15	9	
Does not apply or Don't know	8	6		6	7		21	19		14	28	
N	619	433		617	484		147	102		157	100	

Table E.102. D8l: Ability to provide optimal patient-centered care is limited by: inadequate financial incentives from my practice

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Does not limit	42	45	0.64	52	53	0.07
Limits somewhat	35	30		30	20	
Limits a great deal	15	15		10	8	
Does not apply or Don't know	8	9		7	19	
N	617	484		157	100	

Table E.103.a. D8: Average number of barriers (out of 8) that the respondent reported limited somewhat or a great deal their ability to provide patient-centered care

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Number of barriers	5.8	5.7	0.52	5.1	4.7	0.32
N	523	402		118	62	

Table E.103.b. D8: Average number of barriers (out of 8) that the respondent reported limited a great deal their ability to provide patient-centered care

	Average number of barriers (out of 8)					
	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Number of barriers	2	2.1	0.7	1.5	1.2	0.21
N	523	402		118	62	

h. Care team composition

Table E.104. C1a: Primary Care Physician (MD or DO) is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
	Never members of your team	0	2	0.21	1	2	0.15	2	4	0.52	0	2	0.17	1	2	0	0	3	3	0	0	0
Sometimes members of your team	4	5		2	4		10	13		7	12		3	5	2	7	9	11	6	6	5	3
Always members of your team	95	93		97	94		88	83		93	86		96	93	98	93	88	85	94	94	95	97
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.105. C1b: Nurse Practitioner (NP) is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	48	42	0.37	37	33	0.56	29	24	0.63	24	11	0.02	50	39	47	33	43	27	46	33	42	34
Sometimes members of your team	19	21		23	25		13	18		17	13		8	7	14	10	14	16	18	15	17	14
Always members of your team	33	37		40	42		58	58		58	76		42	54	39	57	43	57	36	52	41	52
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.106. C1c: Physician Assistant (PA) is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	59	63	0.49	51	54	0.71	35	35	0.48	34	46	0.17	58	50	54	42	50	40	53	37	49	48
Sometimes members of your team	14	14		19	19		13	19		5	5		7	7	11	10	12	13	12	13	14	10
Always members of your team	27	22		30	27		52	46		61	49		35	43	35	48	38	46	35	51	37	41
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.107. C1d: Registered Nurse (RN) is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	26	42	0	24	40	0	22	33	0.22	30	36	0.35	32	28	22	23	33	24	34	23	27	15
Sometimes members of your team	33	27		28	23		29	24		24	16		20	9	20	18	14	20	22	24	15	14
Always members of your team	41	31		48	36		49	43		46	47		47	63	58	59	53	56	44	52	58	71
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.108. C1e: Licensed Practical Nurse (LPN) or Vocational Nurse (LVN) is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	39	39	0.37	34	37	0.82	31	34	0.74	33	38	0.78	45	37	40	38	36	29	47	42	14	16
Sometimes members of your team	22	18		20	20		14	16		17	15		7	7	16	14	13	18	15	17	9	9
Always members of your team	39	43		46	43		55	50		49	47		48	55	44	48	51	53	38	41	77	75
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.109. C1f: Medical Assistant is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	8	10	0.35	7	9	0.63	13	16	0.74	7	11	0.64	11	8	7	8	10	8	1	0	20	18
Sometimes members of your team	8	11		7	9		11	12		8	6		8	6	6	8	12	12	4	5	13	10
Always members of your team	83	79		85	82		77	72		85	83		81	86	87	84	78	80	94	94	67	72
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.110. C1g: Practice Supervisor or Practice Manager is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	10	19	0	12	19	0.06	12	24	0.06	15	13	0.85	10	5	7	13	12	10	10	11	16	20
Sometimes members of your team	34	28		27	25		29	29		28	28		20	13	26	27	20	21	26	27	24	21
Always members of your team	56	53		61	56		60	47		56	59		70	82	67	60	68	69	64	62	60	59
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.111. C1h: Laboratory or Radiology Technician is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	39	34	0.1	34	30	0.55	32	20	0.06	29	29	0.13	37	39	51	41	31	30	28	26	27	27
Sometimes members of your team	23	19		22	22		28	25		24	14		23	19	19	21	17	18	21	22	23	23
Always members of your team	38	47		43	48		40	55		47	58		40	42	30	38	51	52	52	52	50	50
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.112. C1i: Dietitian or Nutritionist is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	49	50	0.7	46	53	0.11	44	50	0.62	48	60	0.2	55	49	48	54	61	50	54	50	60	51
Sometimes members of your team	43	40		41	39		45	42		42	30		30	29	39	28	23	27	31	33	28	33
Always members of your team	8	10		13	8		11	8		10	10		16	22	13	18	15	22	14	17	12	16
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.113. C1j: Pharmacist or Pharmacy Technician is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	58	67	0.16	57	65	0.01	60	50	0.35	57	68	0.05	67	58	37	51	73	60	59	53	55	52
Sometimes members of your team	28	22		26	27		28	32		29	28		21	22	31	24	14	22	23	26	28	23
Always members of your team	15	11		18	8		12	17		14	4		12	21	32	25	14	18	17	21	17	25
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.114. C1k: Behavioral Health, Clinical Psychologist, or Social Worker is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	53	56	0.62	45	61	0	51	49	0.94	47	56	0.01	60	45	36	33	69	54	56	41	60	45
Sometimes members of your team	34	34		31	30		37	40		29	35		25	25	32	31	17	24	27	33	29	35
Always members of your team	13	10		24	9		12	11		24	8		15	31	32	36	15	23	17	26	11	20
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.115. C1i: Physical or Respiratory Therapist is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	67	62	0.35	70	64	0.31	64	58	0.25	74	70	0.85	77	76	72	72	75	72	69	70	69	74
Sometimes members of your team	28	33		24	29		29	38		20	22		19	14	25	23	14	17	23	21	26	18
Always members of your team	5	6		6	6		7	4		7	8		4	10	2	6	10	10	7	9	5	8
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.116. C1m: Health Educator is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	52	56	0.52	46	59	0	55	65	0.04	51	75	0	59	54	48	46	54	45	49	44	50	45
Sometimes members of your team	39	37		39	32		34	32		37	19		29	27	35	33	27	31	32	36	33	31
Always members of your team	10	7		15	8		11	3		12	6		11	19	18	22	19	24	20	20	17	24
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.117. C1n: Care Manager or Care Coordinator is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	16	50	0	7	37	0	23	49	0	13	53	0	12	3	10	4	25	14	20	13	21	9
Sometimes members of your team	38	33		30	37		37	44		33	28		23	15	16	11	30	27	34	30	30	23
Always members of your team	46	17		63	26		40	7		55	19		65	82	73	85	45	59	47	58	49	68
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.118. C1o: Quality Improvement (QI) Specialist is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	57	63	0.43	53	60	0.04	61	71	0.18	51	67	0.1	58	43	49	55	70	61	66	57	63	56
Sometimes members of your team	32	29		31	31		28	24		38	25		26	27	32	25	17	22	22	25	27	26
Always members of your team	11	8		16	9		11	5		11	9		17	31	19	20	13	17	13	18	11	18
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.119. C1p: Community Services Coordinator is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	66	76	0.03	62	75	0	76	79	0.01	69	80	0.05	75	63	67	57	74	65	72	64	72	68
Sometimes members of your team	28	20		26	20		19	21		24	18		16	24	23	27	16	20	20	22	20	20
Always members of your team	6	3		13	5		5	0		8	1		9	13	10	15	10	15	8	14	9	12
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.120. C1q: Receptionist is a team member in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	4	2	0.42	4	4	0.31	3	5	0.74	4	1	0.04	4	4	4	3	2	4	5	5	4	5
Sometimes members of your team	13	12		10	7		7	9		13	4		11	12	12	14	7	6	12	14	12	10
Always members of your team	84	86		86	90		90	86		83	94		85	84	83	83	92	90	84	82	84	85
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.121. C1r: Other types of staff are team members in a typical week

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never members of your team	95	95	0.83	93	96	0.23	95	91	0.55	93	94	0.86	91	95	86	93	91	91	90	91	93	88
Sometimes members of your team	2	2		2	2		3	5		1	2		3	1	4	2	3	3	4	2	2	1
Always members of your team	3	3		5	2		3	3		5	4		7	4	11	6	6	6	5	7	5	11
N	630	444		625	492		151	103		159	102		270	276	62	207	489	535	524	570	324	416

Table E.122. I7: Respondent's professional licensing or certification. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
MD or DO	100	100	0.32	100	100	0.31	0	0	n.a.	1	0	0.29	2	1	1	0	1	1	1	0	0	0
Nurse Practitioner (NP) or Advanced Practice Nurse (APN)	0	0	0.32	0	0	0.17	49	56	0.32	51	68	0.02	2	0	0	1	1	1	1	0	1	0
Physician Assistant (PA)	0	0	0.32	0	0	0.32	51	44	0.32	50	32	0.02	1	0	1	0	0	0	0	0	0	0
Registered Nurse (RN)	1	0	0.32	0	0	0.98	23	32	0.13	26	30	0.55	11	13	43	32	1	1	1	0	36	42
Licensed Practical Nurse (LPN) or Vocational Nurse (LVN)	0	0	0.32	0	0	0.17	1	0	0.17	1	1	0.56	4	7	7	10	1	1	4	0	61	52
Medical Assistant	0	0	0.32	0	0	0.03	0	0	n.a.	1	0	0.29	16	15	24	29	9	9	87	91	5	6
Medical Office Manager	0	0	0.29	0	0	0.14	0	0	n.a.	1	0	0.29	24	19	1	3	1	1	2	1	0	0
Laboratory or Radiology Technician	1	0	0.07	0	0	0.9	1	0	0.17	2	0	0.07	6	3	0	1	2	1	10	4	5	0
Dietitian or Nutritionist	0	0	0.32	0	0	0.17	1	0	0.06	1	1	0.62	0	0	1	1	0	0	0	0	0	0
Pharmacist or Pharmacy Technician	1	1	0.86	0	1	0.02	0	0	n.a.	0	0	n.a.	3	0	2	1	0	1	1	0	0	0
Behavioral Health or Social Worker	1	0	0.16	0	0	n.a.	0	0	n.a.	1	0	0.29	1	1	2	5	0	1	0	0	0	0
Physical or Respiratory Therapist	0	0	0.78	0	0	0.31	1	1	0.64	0	0	n.a.	0	1	0	0	0	0	0	0	0	0
Health Educator	0	0	0.65	0	0	n.a.	2	4	0.47	0	1	0.35	3	0	0	1	0	0	0	0	2	1
Clinical Psychologist	0	0	0.32	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	0	0	0	0	0	0	0	0
Other	2	1	0.32	1	1	0.75	2	6	0.05	6	1	0.03	25	24	22	11	14	16	9	11	6	3
None	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	n.a.	37	36	15	18	73	73	5	4	0	0
N	626	441		625	487		150	104		153	101		247	263	62	203	436	520	512	563	318	408

2. Primary Care Team Functioning, Teamwork Perceptions, and Adaptive Reserve

a. Physicians' assessments of primary care team functioning, measured using the Survey of Organizational Attributes for Primary Care (SOAPC)

Table E.123. Team Functioning (SOAPC) overall scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Team functioning overall	0.67	0.66	0.29	0.7	0.68	0.14	0.65	0.65	0.85	0.67	0.64	0.06	0.71	0.73	0.65	0.67	0.64	0.66	0.65	0.67	0.66	0.65
N	632	445		623	494		151	103		159	103		270	276	63	208	490	538	523	572	322	419

Note: This scale includes items D4a-q. Items D4c, D4g, and D4j-n were reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.124. Team Functioning (SOAPC): Communication subscale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Communication	0.76	0.78	0.26	0.81	0.82	0.27	0.7	0.73	0.28	0.77	0.75	0.29	0.78	0.81	0.7	0.72	0.68	0.71	0.7	0.72	0.7	0.73
N	632	445		623	492		151	103		158	103		270	276	63	206	490	536	523	571	321	414

Note: This subscale includes items D4a-d. Item D4c was reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.125. Team Functioning (SOAPC): Decision making subscale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Decision making	0.77	0.76	0.51	0.81	0.81	0.69	0.75	0.73	0.38	0.77	0.72	0.02	0.83	0.85	0.74	0.74	0.71	0.73	0.73	0.74	0.74	0.74	0.73
N	631	445		623	494		151	103		158	103		270	276	63	206	490	537	523	571	321	414	

Note: This subscale includes items D4e-i. Item D4g was reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.126. Team Functioning (SOAPC): Stress/chaos subscale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Stress/chaos	0.52	0.55	0.07	0.56	0.54	0.28	0.53	0.57	0.16	0.54	0.55	0.83	0.55	0.6	0.48	0.58	0.54	0.6	0.55	0.57	0.54	0.54
N	632	444		623	487		151	103		159	103		270	276	63	207	490	536	523	571	321	414

Note: This subscale includes items D4j-n. Each of the items were reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.127. Team Functioning (SOAPC): History of change subscale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
History of change	0.67	0.54	0	0.58	0.51	0	0.64	0.55	0	0.6	0.51	0	0.7	0.66	0.73	0.65	0.65	0.58	0.64	0.62	0.67	0.62
N	631	445		620	482		150	102		159	103		270	276	63	198	488	525	523	558	322	410

Note: This subscale includes items D4o-q. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.128. D4a: When there is a conflict, the people involved usually talk it out and resolve the problem successfully

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.63	0	0	0.08	4	1	n.a.	0	4	n.a.	0	0	2	3	4	2	4	3	2	3
Disagree	5	6		2	4		9	13		4	4		6	1	5	7	12	12	13	10	12	7
Neither disagree or agree	10	9		8	5		16	9		13	9		4	6	16	17	16	15	16	18	17	14
Agree	50	52		50	43		51	61		50	48		52	50	57	45	48	45	42	45	45	49
Strongly agree	33	33		40	48		21	16		33	35		38	43	21	27	19	25	26	24	23	28
Does not apply or Don't know	1	0		0	0		0	0		0	0		0	0	0	1	0	1	0	1	1	0
N	632	444		621	493		151	103		158	102		270	274	62	204	489	534	522	568	322	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.129. D4b: Our staff has constructive work relationships

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.46	0	0	0.08	1	0	n.a.	0	0	n.a.	0	0	0	0	2	1	2	0	1	1
Disagree	3	2		1	3		7	6		1	6		2	1	2	4	6	5	6	3	7	4
Neither disagree or agree	6	6		3	5		11	6		7	6		5	4	15	12	12	11	12	14	16	9
Agree	51	47		46	38		49	55		52	47		45	48	57	49	52	50	48	51	43	51
Strongly agree	39	45		50	54		33	33		40	41		47	46	26	34	28	32	32	31	33	34
Does not apply or Don't know	0	0		0	1		0	0		0	0		0	0	0	1	0	0	0	1	0	0
N	632	445		622	492		151	103		157	103		270	275	63	204	487	533	521	568	322	412

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.130. D4c: There is often tension among the people I work with

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	15	18	0.46	23	27	0.39	11	14	n.a.	16	11	0.45	17	22	7	15	11	18	12	14	12	16
Disagree	54	50		50	50		45	43		46	52		42	51	29	41	35	38	37	34	38	41
Neither disagree or agree	13	14		15	13		15	25		19	12		19	18	32	20	22	18	25	27	24	20
Agree	15	13		10	8		20	17		16	20		18	8	28	17	23	20	18	18	19	17
Strongly agree	3	3		2	1		8	1		3	5		3	1	4	7	8	6	7	7	7	6
Does not apply or Don't know	0	1		0	1		0	0		0	0		0	0	0	1	0	0	0	0	1	0
N	632	445		623	491		151	103		158	102		265	272	63	202	486	531	519	567	321	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.131. D4d: Staff members and clinicians I work with operate as a real team

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	0	0.26	1	0	0.47	2	0	n.a.	0	0	n.a.	0	0	0	1	1	2	1	0	0	1
Disagree	3	2		2	2		7	6		2	5		3	3	2	6	4	4	4	4	5	4
Neither disagree or agree	8	8		5	5		9	7		6	5		6	4	10	11	13	12	12	7	9	9
Agree	56	50		41	39		48	48		44	53		46	43	53	44	52	45	44	47	44	44
Strongly agree	32	40		51	52		34	39		47	37		45	50	34	38	30	37	39	41	39	42
Does not apply or Don't know	0	0		0	1		0	0		1	0		0	0	1	0	0	0	0	1	1	0
N	630	444		620	492		151	103		158	103		269	276	63	206	489	535	522	570	321	412

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.132. D4e: This practice encourages staff and clinicians to give input for making changes and improvements

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.55	0	1	0.12	2	3	n.a.	0	0	n.a.	0	0	0	2	3	2	4	1	2	3
Disagree	4	3		4	1		5	4		6	10		1	1	5	4	8	8	8	6	8	8
Neither disagree or agree	10	9		6	7		13	16		8	11		5	4	10	11	11	10	12	12	14	10
Agree	44	50		34	38		36	39		43	47		40	33	44	42	44	44	40	39	34	38
Strongly agree	40	36		55	52		43	39		43	32		53	63	41	40	33	34	36	41	41	40
Does not apply or Don't know	0	0		0	1		0	0		0	0		0	0	1	1	0	1	0	1	1	0
N	631	445		623	492		151	103		157	103		267	276	63	204	488	537	523	571	321	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.133. D4f: All of the staff and clinicians participate in important decisions about clinical operations (e.g., workflow)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	3	0.84	1	1	0.9	4	3	0.21	0	4	0.19	0	0	0	6	5	3	4	3	3	6
Disagree	13	13		9	9		17	15		14	19		8	5	23	14	16	17	16	18	18	18
Neither disagree or agree	14	13		11	12		11	24		16	17		8	10	19	15	21	15	18	13	17	14
Agree	45	44		43	40		42	38		42	44		45	44	31	35	40	41	37	37	34	39
Strongly agree	26	27		36	38		26	19		26	17		39	41	25	29	15	21	25	29	25	23
Does not apply or Don't know	0	0		0	0		0	1		1	0		0	0	1	2	2	3	1	1	3	0
N	631	445		621	493		151	103		158	103		268	276	63	204	490	536	521	571	322	414

Table E.134. D4g: Practice leadership discourages nursing staff from taking initiative in direct patient care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	22	21	0.43	31	34	0.41	21	21	0.25	24	20	0.13	34	37	28	26	12	16	17	21	28	22
Disagree	55	58		50	44		55	47		51	46		50	48	38	37	32	33	46	40	44	47
Neither disagree or agree	15	11		9	9		15	15		18	15		9	6	11	19	27	24	24	22	17	18
Agree	4	5		4	7		4	14		4	6		3	4	15	9	6	5	8	8	7	8
Strongly agree	1	2		2	3		3	2		0	6		2	2	1	3	3	3	2	4	3	4
Does not apply or Don't know	3	3		4	3		2	2		3	6		2	2	7	6	21	19	4	5	1	1
N	630	443		622	491		150	103		158	102		267	275	63	204	486	530	521	567	319	414

Table E.135. D4h: This practice defines success as teamwork and concern for people

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	0	0.34	0	1	0.65	1	0	0.81	0	0	n.a.	0	0	0	3	1	4	1	0	1	2
Disagree	4	4		3	2		5	5		4	5		0	1	10	5	4	3	5	2	5	4
Neither disagree or agree	16	15		8	8		12	9		10	12		8	4	10	6	10	7	10	9	12	13
Agree	40	38		37	35		39	40		44	41		37	33	40	45	47	47	45	46	43	36
Strongly agree	38	42		51	52		42	44		42	41		54	61	38	38	37	38	39	42	37	45
Does not apply or Don't know	2	0		1	2		1	1		0	1		0	1	1	3	0	1	0	1	2	1
N	631	445		622	493		151	103		158	103		270	276	63	206	489	536	520	570	322	412

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.136. D4i: Staff and clinicians are involved in developing plans for improving quality

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	2	0.17	1	1	0.03	2	3	n.a.	0	2	0.17	0	0	0	2	2	1	2	1	1	3
Disagree	3	6		3	3		7	7		6	10		2	2	10	4	7	5	7	9	6	7
Neither disagree or agree	8	8		5	8		8	17		9	10		5	4	14	13	16	9	10	10	18	11
Agree	50	50		44	49		44	41		45	51		47	41	46	44	48	48	44	44	38	43
Strongly agree	38	34		47	38		39	33		40	24		46	52	30	36	26	33	36	35	35	35
Does not apply or Don't know	0	0		0	1		0	0		0	3		0	1	1	1	1	3	0	1	2	0
N	631	445		622	487		151	103		158	103		270	275	63	205	487	532	520	569	321	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.137. D4j: It's hard to make any changes because we are so busy seeing patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	9	7	0.43	11	6	0.13	5	10	0.23	4	2	0.11	9	14	7	11	11	13	9	12	12	7
Disagree	29	30		33	28		29	36		31	41		39	36	29	38	39	44	35	38	35	39
Neither disagree or agree	20	23		20	21		24	18		30	15		21	24	26	22	23	24	27	29	24	21
Agree	32	30		26	32		29	28		26	31		21	21	28	18	19	14	18	12	18	23
Strongly agree	10	9		10	12		13	7		9	10		10	5	9	9	8	5	10	9	10	9
Does not apply or Don't know	0	1		0	0		1	0		1	0		0	0	0	2	1	1	1	1	0	1
N	629	444		623	488		151	103		157	103		270	275	63	204	487	533	522	566	321	411

Table E.138. D4k: Staff and clinicians very frequently feel overwhelmed by the work demands

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.28	5	2	0.62	1	5	n.a.	0	1	0.75	4	5	1	5	5	6	4	7	4	2
Disagree	14	20		14	15		21	25		19	25		16	17	14	20	19	24	23	19	21	24
Neither disagree or agree	17	17		15	14		21	17		23	22		19	21	23	24	21	25	22	26	21	15
Agree	42	39		42	43		33	30		38	35		38	40	42	29	31	29	30	28	29	33
Strongly agree	25	22		24	26		23	23		19	16		23	16	20	20	21	13	21	19	23	25
Does not apply or Don't know	1	0		0	0		0	0		1	0		0	1	0	2	2	3	0	0	1	1
N	630	445		621	486		151	103		158	102		267	275	63	204	486	535	522	569	319	410

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.139. D4l: It is stressful to work in this practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	6	8	0.25	11	8	0.11	10	13	n.a.	8	12	0.48	9	16	3	15	9	14	13	13	13	10
Disagree	27	34		28	34		41	26		35	29		37	33	28	32	27	33	28	30	31	34
Neither disagree or agree	25	24		26	19		19	25		25	19		24	24	25	26	28	21	25	29	22	17
Agree	32	27		27	30		18	25		23	31		21	22	30	19	25	23	23	19	20	27
Strongly agree	9	7		8	9		13	12		8	10		9	5	13	8	11	9	12	9	15	12
Does not apply or Don't know	1	0		0	0		0	0		1	0		0	0	0	0	0	0	0	0	0	1
N	631	442		622	486		151	103		158	103		268	275	63	203	486	536	521	569	322	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.140. D4m: This practice is almost always in chaos

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	40	42	0.67	41	37	0.72	34	39	0.55	30	30	n.a.	40	41	20	30	29	30	32	30	28	29
Disagree	45	44		47	50		45	38		52	43		46	47	45	49	40	45	39	44	46	46
Neither disagree or agree	9	10		8	8		9	12		10	19		8	8	13	10	17	16	14	15	13	13
Agree	4	2		2	4		7	8		6	7		4	2	19	7	9	5	10	7	8	5
Strongly agree	2	2		1	1		4	2		2	1		1	2	3	4	4	4	5	4	4	7
Does not apply or Don't know	0	0		0	0		1	0		0	0		0	0	0	0	0	0	0	0	0	0
N	631	442		623	487		150	103		159	103		269	275	63	205	489	534	521	569	322	410

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.141. D4n: Things have been changing so fast in this practice that it is hard to keep up with what is going on

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	8	15	0.05	19	19	0.73	7	15	n.a.	14	14	n.a.	7	16	8	14	11	19	12	15	10	14
Disagree	36	39		38	37		41	45		40	44		29	41	31	46	33	40	37	41	41	39
Neither disagree or agree	25	19		20	20		16	22		22	22		21	23	18	16	24	20	20	22	15	18
Agree	22	20		20	18		27	15		16	15		36	15	31	16	24	12	22	16	22	19
Strongly agree	9	6		3	6		9	3		8	4		6	4	12	7	7	8	8	6	10	9
Does not apply or Don't know	0	0		0	0		0	0		0	0		0	0	0	0	0	1	0	0	0	0
N	631	445		622	486		151	103		159	103		270	275	63	206	490	537	523	571	322	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.142. D4o: During the past 12 months, this practice has changed how it takes initiative to improve patient care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	2	0	3	4	0	1	5	0	2	5	n.a.	2	2	0	1	2	3	2	1	1	1	1
Disagree	5	20		8	18		5	15		11	16		4	4	2	9	8	9	7	5	7	7	7
Neither disagree or agree	7	16		16	22		6	14		16	16		4	13	6	12	9	13	9	18	10	17	17
Agree	51	48		55	41		59	51		52	52		56	52	52	50	55	50	53	54	50	53	53
Strongly agree	36	14		17	13		28	13		20	11		34	30	40	26	26	19	27	19	30	20	20
Does not apply or Don't know	0	0		0	3		1	2		0	0		0	0	0	3	1	6	1	3	2	2	2
N	630	444		621	487		151	103		159	103		270	276	63	205	488	534	522	568	322	416	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.143. D4p: During the past 12 months, this practice has changed how it does business

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	4	0	7	5	0	1	4	0.11	4	6	0.68	2	3	0	2	1	3	3	2	2	4	4
Disagree	15	26		19	36		15	28		19	23		10	14	9	17	15	19	13	16	12	16	16
Neither disagree or agree	19	19		27	21		20	17		28	28		18	24	19	21	22	33	23	29	20	27	27
Agree	41	36		35	27		45	37		35	29		48	46	52	37	43	32	42	38	44	34	34
Strongly agree	19	13		10	9		15	10		11	8		22	12	19	14	15	8	14	9	18	13	13
Does not apply or Don't know	5	2		3	2		5	3		3	6		0	1	1	9	5	6	6	6	3	8	8
N	632	445		621	487		151	103		159	103		270	276	63	204	487	534	522	568	321	416	416

Table E.144. D4q: During the past 12 months, this practice has changed how everyone relates

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	5	9	0	8	7	0	3	5	0.48	6	9	0.01	4	3	0	4	3	5	3	3	3	4
Disagree	21	41		28	44		29	40		27	47		15	17	17	17	21	26	23	23	22	21
Neither disagree or agree	28	28		29	26		34	27		32	30		24	29	21	27	35	34	36	33	26	33
Agree	36	16		27	16		27	21		24	11		42	40	48	36	27	26	24	29	31	31
Strongly agree	9	5		6	4		7	7		9	4		14	10	13	10	9	6	10	7	16	6
Does not apply or Don't know	1	2		2	2		1	1		2	0		1	0	1	6	4	4	3	5	2	6
N	632	444		619	486		151	103		159	103		270	276	63	203	489	533	522	568	322	415

b. The Teamwork Perceptions Questionnaire (T-TPQ)**Table E.145. Teamwork Perceptions scale (range from 0 [worst] to 1 [best])**

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Teamwork Perceptions	0.71	0.71	0.75	0.74	0.74	0.53	0.69	0.71	0.25	0.72	0.71	0.61	0.75	0.78	0.71	0.71	0.71	0.7	0.71	0.72	0.7	0.69
N	632	437		623	489		151	104		159	103		270	276	62	205	488	535	524	570	321	416

Note: This scale includes items D5a-k. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.146. Teamwork Perceptions: Team structure scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Team structure	0.74	0.75	0.91	0.77	0.77	0.97	0.72	0.76	0.06	0.74	0.75	0.68	0.79	0.82	0.73	0.75	0.74	0.73	0.74	0.74	0.73	0.72
N	632	437		623	488		151	104		159	103		270	276	62	205	488	535	524	569	321	416

Note: This subscale includes items D5a-f. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.147. Teamwork Perceptions: Situation monitoring scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Situation monitoring	0.67	0.66	0.46	0.71	0.69	0.21	0.65	0.65	0.97	0.69	0.66	0.1	0.7	0.73	0.68	0.68	0.67	0.67	0.67	0.69	0.66	0.65
N	631	437		622	489		151	104		159	102		270	276	62	205	487	535	524	570	321	416

Note: This subscale includes items D5g-k. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.148. D5a: The skills of staff overlap sufficiently so that work can be shared when necessary

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.46	0	0	0.14	1	2	0.8	1	0	n.a.	0	0	0	1	1	1	1	1	1	1	2
Disagree	6	4		4	7		6	4		5	8		6	4	23	7	7	11	11	9	9	10	
Neither disagree or agree	7	8		10	7		9	6		14	6		8	6	7	8	10	12	11	9	11	7	
Agree	63	67		58	57		61	64		61	57		49	53	51	61	62	54	54	58	54	57	
Strongly agree	22	20		29	28		22	24		20	30		38	38	19	23	18	21	21	23	25	23	
Does not apply or Don't know	1	0		0	1		1	1		0	0		0	0	0	0	1	0	1	0	0	0	
N	629	437		622	487		151	104		159	103		270	276	62	205	486	529	521	567	322	413	

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.149. D5b: Staff are held accountable for their actions

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	1	0.22	0	0	0.94	3	1	n.a.	1	0	n.a.	0	0	0	4	2	4	4	3	3	4
Disagree	5	2		4	3		12	5		7	8		4	1	17	9	9	12	14	12	12	11
Neither disagree or agree	11	11		6	7		9	11		8	8		4	5	15	13	14	14	9	15	9	13
Agree	58	65		63	62		57	53		57	52		52	58	35	48	52	48	50	50	51	46
Strongly agree	25	21		27	28		18	30		26	32		38	37	33	24	22	20	23	20	24	25
Does not apply or Don't know	0	0		0	0		0	0		0	0		1	0	0	2	1	2	0	0	1	0
N	632	436		623	487		151	104		159	103		270	276	62	205	486	530	523	567	322	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.150. D5c: This practice makes efficient use of resources (e.g., staff supplies, equipment, information)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	1	0.38	0	1	0.7	1	0	0.07	0	1	n.a.	0	0	0	1	1	1	1	1	1	2
Disagree	4	4		5	3		8	6		5	6		2	1	6	4	2	3	5	4	4	9
Neither disagree or agree	13	13		7	7		10	4		13	11		4	4	10	6	6	7	7	8	9	10
Agree	57	62		58	59		61	58		57	45		58	51	46	56	62	59	57	58	57	53
Strongly agree	25	21		29	29		20	32		25	37		35	42	38	32	28	29	31	30	28	26
Does not apply or Don't know	0	0		1	0		1	0		0	0		1	1	0	0	1	1	0	0	1	0
N	632	437		622	488		151	104		159	103		270	275	62	205	488	535	523	570	322	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.151. D5d: Staff understand their roles and responsibilities

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	0	0.73	0	0	n.a.	2	0	n.a.	0	0	n.a.	0	0	0	1	1	2	3	1	0	1
Disagree	3	2		0	3		6	5		6	2		1	1	14	4	5	4	5	7	7	7
Neither disagree or agree	6	7		6	4		9	8		8	11		2	2	16	9	5	10	9	10	9	9
Agree	61	61		60	57		56	50		60	51		57	51	31	56	58	54	53	51	55	55
Strongly agree	29	29		34	36		27	38		25	35		39	44	39	29	30	30	30	31	28	28
Does not apply or Don't know	0	0		0	0		0	0		0	0		0	1	0	0	0	0	0	0	0	0
N	631	437		623	488		151	104		159	103		270	276	62	205	487	533	522	569	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.152. D5e: This practice has clearly articulated goals

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	0	0.85	0	1	0.91	2	1	0.8	0	1	n.a.	1	0	0	4	1	3	1	1	1	1
Disagree	6	6		4	4		9	6		8	10		4	3	8	5	5	6	5	4	8	8
Neither disagree or agree	17	19		14	15		18	19		16	17		17	9	15	10	16	13	15	16	17	15
Agree	53	53		53	51		46	45		47	45		51	52	41	52	53	53	51	49	50	49
Strongly agree	24	23		29	30		25	29		29	28		27	35	36	28	23	24	27	30	24	26
Does not apply or Don't know	0	0		0	0		0	0		0	0		0	1	0	0	2	1	1	1	0	1
N	631	437		622	488		151	104		159	103		270	276	62	203	486	533	519	568	322	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.153. D5f: This practice operates at a high level of efficiency

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.76	1	1	0.27	3	2	0.39	0	2	n.a.	0	0	0	3	1	3	2	1	3	2
Disagree	13	10		11	7		10	12		10	14		5	5	9	7	7	7	5	5	10	9
Neither disagree or agree	22	22		13	17		17	15		18	19		17	8	25	14	17	12	18	15	19	18
Agree	40	44		45	46		48	39		44	35		48	48	33	48	48	51	46	52	42	47
Strongly agree	24	23		29	29		22	32		27	30		30	39	32	27	27	26	29	27	27	24
Does not apply or Don't know	0	0		1	0		0	0		0	0		0	1	0	0	1	0	0	0	0	0
N	631	437		621	488		151	104		159	103		270	275	62	203	487	532	521	569	322	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.154. D5g: Staff effectively anticipate each other's needs

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.54	1	1	0.73	5	1	0.2	1	1	0.09	0	0	0	3	2	2	2	1	2	1
Disagree	12	9		7	6		15	14		11	11		6	5	10	9	11	11	13	9	14	12
Neither disagree or agree	24	24		16	17		19	19		23	14		19	15	26	25	19	20	21	22	18	23
Agree	47	51		57	60		49	48		49	66		56	54	39	48	52	48	45	47	48	46
Strongly agree	16	15		20	15		11	18		16	8		18	25	26	16	14	18	19	20	18	17
Does not apply or Don't know	0	0		0	1		0	0		0	1		1	1	0	0	1	0	0	1	0	0
N	630	437		623	488		151	104		158	103		270	276	62	205	487	532	523	570	322	415

Table E.155. D5h: Staff monitor each other's performance

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.98	0	0	0.88	2	0	0.29	0	1	0.47	1	0	0	2	2	2	3	1	2	1
Disagree	13	12		10	10		15	16		11	19		14	12	16	14	13	14	14	12	14	13
Neither disagree or agree	35	35		29	27		26	22		20	19		28	23	21	27	32	29	26	28	26	32
Agree	39	40		48	50		45	47		54	48		46	47	52	38	38	39	43	45	42	40
Strongly agree	9	11		11	11		9	14		12	10		10	16	8	15	11	14	11	11	13	13
Does not apply or Don't know	2	2		2	2		3	1		2	2		2	1	2	4	4	3	2	1	2	2
N	632	437		622	488		151	103		159	103		270	276	62	204	485	528	522	569	320	413

Table E.156. D5i: Staff exchange relevant information as it becomes available

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	0	0	0.47	0	0	0.74	2	1	0.19	0	1	0.7	0	0	0	2	1	2	2	0	2	1
Disagree	4	4		3	2		7	4		5	3		2	1	4	7	10	9	5	6	6	7
Neither disagree or agree	14	10		9	8		7	11		6	10		7	7	5	11	10	11	9	10	7	10
Agree	59	63		59	64		61	50		65	62		64	58	67	51	61	56	60	57	59	54
Strongly agree	21	23		29	25		23	34		24	24		28	34	24	28	19	22	24	27	26	27
Does not apply or Don't know	0	0		1	0		0	0		1	1		0	0	0	1	0	0	0	0	1	0
N	631	437		622	489		151	104		158	103		269	276	62	204	486	532	524	570	322	414

Table E.157. D5j: Staff members frequently meet to re-evaluate patient care goals

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	3	4	0	2	3	0.12	6	7	0.35	1	9	0.07	0	1	4	5	3	3	3	4	4	4
Disagree	12	27		13	19		11	22		17	21		12	4	14	13	11	9	13	9	18	20
Neither disagree or agree	21	15		16	20		24	20		15	20		17	14	18	16	16	18	17	16	17	16
Agree	46	40		47	39		40	36		45	35		48	53	42	39	48	45	44	42	44	40
Strongly agree	16	13		22	17		18	14		21	16		23	28	23	27	16	19	22	27	16	18
Does not apply or Don't know	3	1		1	1		1	2		1	1		0	0	0	1	6	5	2	1	1	1
N	632	435		622	489		151	104		159	103		269	274	62	204	487	535	523	568	322	414

Table E.158. D5k: Staff correct each other's mistakes

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.1	1	0	0.85	2	1	0.1	1	1	0.55	0	1	2	2	1	3	3	3	4	3
Disagree	6	10		4	5		11	14		5	11		10	12	20	6	11	11	12	10	13	17
Neither disagree or agree	25	26		22	22		17	33		24	25		26	29	24	30	24	24	29	25	30	31
Agree	58	50		59	60		59	43		59	51		51	41	39	44	47	45	41	47	42	39
Strongly agree	8	11		13	10		10	7		9	10		8	16	12	13	14	17	13	14	8	7
Does not apply or Don't know	2	1		2	2		1	2		2	3		3	1	2	5	3	1	3	1	3	2
N	632	437		621	489		151	103		157	102		270	275	62	203	485	534	521	570	321	412

c. Adaptive Reserve

Table E.159. Adaptive Reserve scale (range from 0 [worst] to 1 [best])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Adaptive Reserve	0.71	0.71	0.82	0.74	0.73	0.55	0.68	0.7	0.59	0.71	0.69	0.38	0.77	0.8	0.69	0.7	0.66	0.67	0.67	0.69	0.68	0.66
N	631	436		622	494		151	104		157	103		270	276	62	206	487	536	525	570	322	417

Note: This scale includes items D6a-n. Item D6m was reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.160. D6a: People in this practice actively seek new ways to improve how they do things

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.38	0	0	0	3	1	n.a.	1	0	0.36	0	0	0	1	1	4	1	1	1	2
Disagree	4	7		4	5		7	13		6	12		3	4	3	8	7	5	8	6	6	13
Neither disagree or agree	13	15		9	18		14	15		12	17		10	7	21	12	19	15	15	14	15	13
Agree	59	58		58	56		52	47		59	52		60	56	46	51	55	51	54	55	55	50
Strongly agree	24	20		28	19		24	24		22	18		26	33	30	28	17	23	22	24	23	22
Does not apply or Don't know	0	0		0	1		0	0		1	1		0	0	0	0	0	1	0	1	0	0
N	630	436		621	489		151	104		157	103		270	276	62	205	486	534	524	569	322	416

Table E.161. D6b: People at all levels of this practice openly talk about what is and isn't working

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.65	0	1	0.63	2	1	n.a.	0	0	n.a.	0	0	1	3	3	4	2	1	2	2
Disagree	11	9		5	5		10	15		8	15		3	3	9	8	11	9	11	11	10	12
Neither disagree or agree	11	11		11	12		11	8		11	12		6	7	15	12	10	11	11	11	8	12
Agree	55	58		57	56		54	52		58	54		54	51	39	48	54	51	50	50	54	47
Strongly agree	23	21		27	26		24	25		23	20		36	38	35	29	21	25	25	26	24	26
Does not apply or Don't know	1	0		0	0		0	0		0	0		0	0	0	1	1	1	0	1	1	0
N	630	436		620	487		151	104		157	103		270	275	62	206	487	535	525	569	321	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.162. D6c: After trying something new, people in the practice take time to think about how it worked

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	1	0.65	0	0	0.06	3	2	0.33	0	0	n.a.	0	0	6	3	3	3	2	2	2	2
Disagree	9	11		8	7		17	11		9	18		8	3	10	8	11	8	12	12	13	15
Neither disagree or agree	21	20		16	20		15	25		15	18		15	11	5	17	19	20	14	18	17	19
Agree	54	56		57	60		49	40		60	48		55	60	53	48	52	51	55	48	50	47
Strongly agree	13	12		20	12		16	21		15	16		22	25	26	24	13	17	16	19	18	17
Does not apply or Don't know	0	0		0	1		0	1		0	0		0	1	0	1	2	1	1	1	0	0
N	628	435		620	486		151	104		156	103		270	275	62	203	486	536	525	569	322	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.163. D6d: Practice leadership promotes an environment that is an enjoyable place to work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	3	0.29	1	2	0.74	6	3	0.27	2	3	n.a.	0	0	3	5	4	4	5	3	3	3
Disagree	8	5		4	4		8	11		8	13		5	1	8	7	9	11	10	8	11	13
Neither disagree or agree	22	20		18	16		16	27		18	14		6	7	33	16	21	14	20	18	24	20
Agree	43	51		48	51		45	39		48	47		55	50	32	47	46	46	41	44	38	42
Strongly agree	24	21		29	26		24	21		23	24		34	42	24	26	19	24	24	25	24	22
Does not apply or Don't know	0	0		0	1		1	0		0	0		1	1	0	0	0	1	0	1	0	0
N	631	435		621	488		151	104		157	103		270	276	62	204	487	532	524	570	322	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.164. D6e: Leadership in this practice creates an environment where things can be accomplished

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	1	0.31	1	2	0.07	5	3	0.26	0	1	n.a.	0	0	4	3	3	5	4	2	2	3
Disagree	6	5		6	4		8	5		6	10		2	0	10	7	8	6	10	9	10	9
Neither disagree or agree	18	15		14	13		13	24		18	16		10	8	21	17	19	18	18	17	22	21
Agree	49	57		49	56		44	44		54	48		49	48	42	47	51	49	46	48	43	45
Strongly agree	25	21		30	25		30	25		22	24		38	43	23	27	19	21	22	25	24	22
Does not apply or Don't know	0	0		0	0		1	0		0	0		1	1	0	0	0	1	0	0	0	1
N	628	436		622	488		151	104		157	103		270	276	62	205	486	532	524	570	322	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.165. D6f: Leadership strongly supports practice change efforts

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.18	1	2	0.14	3	2	n.a.	1	1	n.a.	0	0	5	3	2	3	3	1	2	2
Disagree	7	5		6	5		11	7		7	10		5	1	2	5	7	5	5	7	10	10
Neither disagree or agree	12	15		13	14		13	21		21	22		5	5	10	15	15	18	18	15	17	16
Agree	45	52		46	50		40	41		44	48		48	47	49	47	53	51	51	50	47	46
Strongly agree	34	27		35	28		32	29		27	19		42	47	34	28	22	22	23	26	24	26
Does not apply or Don't know	0	0		0	1		0	0		0	0		1	1	0	1	1	1	0	1	0	0
N	630	436		620	488		151	104		156	103		269	275	62	205	487	531	523	567	322	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.166. D6g: When we experience a problem in this practice, we make a serious effort to figure out what's really going on

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	n.a.	0	1	0.37	2	1	0.24	1	0	n.a.	0	0	1	4	2	4	4	2	2	2	2
Disagree	4	5		2	4		11	11		5	12		2	1	6	7	10	8	11	9	10	12	12
Neither disagree or agree	9	7		11	10		13	6		12	6		5	5	11	13	13	13	13	13	13	15	15
Agree	54	61		49	51		46	52		56	57		50	41	51	45	51	47	46	47	47	43	43
Strongly agree	32	27		38	34		28	30		27	24		43	51	31	30	23	27	26	28	27	27	27
Does not apply or Don't know	0	0		0	1		1	0		0	0		0	1	0	2	1	0	0	1	1	1	1
N	628	436		620	488		151	104		157	103		270	276	62	205	486	534	525	567	321	417	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.167. D6h: I have many opportunities to grow in my work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	2	0.95	2	3	0.45	4	3	0.66	1	1	n.a.	2	1	14	6	13	12	9	5	6	9	9
Disagree	11	9		7	7		12	12		9	15		6	2	11	10	20	18	22	20	17	23	23
Neither disagree or agree	18	20		21	20		17	19		21	16		17	14	20	18	29	27	20	24	22	18	18
Agree	45	46		41	45		39	38		45	45		43	44	35	37	26	29	33	34	36	35	35
Strongly agree	23	24		28	24		26	29		24	23		31	36	19	28	11	14	15	17	18	14	14
Does not apply or Don't know	1	1		1	0		1	0		0	0		1	1	0	0	1	1	1	1	1	1	1
N	631	436		620	488		151	103		157	103		268	276	62	203	483	531	523	567	319	417	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.168. D6i: People in this practice operate as a real team

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	n.a.	2	0	0.06	4	0	0.04	1	3	n.a.	0	0	1	4	3	3	4	2	3	3
Disagree	5	4		2	2		6	8		6	6		6	4	11	6	10	10	8	7	9	6
Neither disagree or agree	15	12		7	8		16	10		12	9		9	7	18	15	20	17	17	15	16	17
Agree	56	58		55	51		49	51		52	48		55	47	45	47	49	45	47	53	46	47
Strongly agree	23	26		33	39		24	31		29	33		30	42	25	27	17	25	24	24	25	28
Does not apply or Don't know	0	0		0	0		0	0		0	0		0	1	0	0	0	0	0	0	0	0
N	631	436		619	484		151	103		157	101		270	276	62	205	487	533	525	570	321	417

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.169. D6j: Most of the people who work in this practice seem to enjoy their work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.47	0	0	0.2	4	0	0.01	1	0	n.a.	0	0	0	2	3	3	2	2	2	2
Disagree	4	5		3	4		9	10		8	10		5	1	17	6	12	10	9	8	10	11
Neither disagree or agree	13	16		14	10		13	12		11	10		8	4	21	17	16	18	20	17	20	14
Agree	61	55		56	56		52	50		57	55		57	58	40	53	52	49	50	53	44	52
Strongly agree	20	22		26	30		20	29		24	25		30	36	22	21	15	20	18	20	23	21
Does not apply or Don't know	0	1		0	0		2	0		0	0		0	1	0	1	1	0	0	0	0	0
N	631	436		620	484		150	104		157	101		270	275	62	204	487	534	525	569	321	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.170. D6k: This practice is a place of joy and hope

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	2	2	0.61	2	1	0.61	7	2	0.24	2	2	n.a.	0	0	2	4	5	6	5	3	3	4
Disagree	13	11		8	7		15	17		8	19		8	4	17	8	12	11	9	10	14	11
Neither disagree or agree	33	32		31	29		23	25		37	23		24	21	34	31	34	28	32	30	29	26
Agree	39	37		40	44		35	43		36	39		46	45	38	37	37	39	38	40	36	42
Strongly agree	12	17		18	18		18	13		16	17		22	30	9	21	12	16	15	16	17	18
Does not apply or Don't know	0	0		1	0		1	1		0	0		0	1	0	1	1	0	0	1	1	0
N	631	435		620	482		150	104		157	101		269	276	62	205	485	534	522	568	320	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.171. D6l: Mistakes have led to positive changes here

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.98	0	0	0.84	2	2	0.84	1	0	0.53	0	0	7	3	1	4	2	2	1	3
Disagree	3	3		3	4		4	7		3	8		3	1	2	3	9	7	10	6	9	10
Neither disagree or agree	21	21		21	22		24	26		23	22		18	9	16	18	26	22	27	25	26	27
Agree	59	59		58	57		54	49		56	51		57	61	62	53	48	50	46	50	44	46
Strongly agree	13	12		17	15		13	15		16	17		22	27	13	19	12	13	12	14	16	11
Does not apply or Don't know	2	4		1	1		3	2		2	2		1	1	0	5	4	3	3	3	4	4
N	631	436		620	481		150	104		157	101		268	276	62	205	487	533	523	568	321	415

Table E.172. D6m: It is hard to get things to change in this practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	11	11	0.08	13	9	0.21	9	15	0.23	10	7	n.a.	15	19	11	10	10	9	12	10	12	9
Disagree	44	52		48	55		39	38		44	50		47	49	46	38	36	38	33	33	34	34
Neither disagree or agree	19	18		17	17		21	16		23	15		19	21	10	26	30	27	30	31	27	26
Agree	21	13		17	14		19	23		21	25		17	10	18	13	16	18	18	17	18	18
Strongly agree	5	6		5	4		11	7		2	2		2	1	15	9	7	7	7	9	8	12
Does not apply or Don't know	0	0		0	1		2	0		0	0		0	0	0	3	2	1	1	1	0	2
N	631	436		619	484		151	104		157	101		269	276	62	201	486	532	521	570	321	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.173. D6n: This practice learns from its mistakes

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	1	1	0.72	1	1	0.52	3	0	n.a.	1	1	n.a.	1	0	0	2	1	3	1	2	1	2
Disagree	4	3		3	2		4	3		5	9		1	1	2	5	6	4	7	4	7	7
Neither disagree or agree	14	18		15	11		15	20		17	15		12	6	19	16	20	21	22	21	24	23
Agree	65	62		62	67		63	55		61	55		61	64	59	52	57	53	53	51	51	51
Strongly agree	15	15		20	18		16	22		17	19		25	29	20	25	14	19	15	20	17	17
Does not apply or Don't know	1	1		0	1		0	0		0	0		0	0	0	0	1	1	1	1	0	1
N	631	436		620	484		151	104		157	101		269	276	62	205	487	534	523	569	320	416

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

3. Effects on Physician and Staff Burnout and Work Satisfaction

Table E.174. E2a: Proportion of time each week the respondent does work that could be done by someone with less training

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
<25%	45	47	0.73	46	50	0.22	60	69	0.33	68	69	0.79	49	53	44	43	43	44	49	45	46	38
25%-49%	39	34		42	37		29	24		21	20		24	28	31	28	13	14	20	19	25	30
50%-74%	11	11		7	8		7	3		4	2		11	6	12	8	6	8	10	12	12	16
75%+	4	4		3	1		1	0		2	3		4	2	8	5	7	7	4	8	6	6
Does not apply or Don't know	2	4		3	4		3	4		4	7		12	11	5	15	32	27	18	16	11	10
N	624	442		619	490		149	104		159	100		268	274	63	205	485	530	522	565	325	414

Table E.175. E2a: Proportion of time each week the respondent does work that could be done by someone with less training, excluding responses of don't know or does not apply

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
<25%	46	48	0.81	47	52	0.14	62	72	0.19	71	74	0.81	56	60	46	51	63	60	59	54	51	43
25%-49%	39	36		43	38		30	25		22	21		27	31	32	33	19	19	24	22	28	33
50%-74%	11	12		7	9		7	3		4	2		13	7	13	10	9	11	12	15	13	18
75%+	4	4		3	1		1	0		3	3		4	2	9	6	10	10	5	9	7	6
N	606	424		599	469		145	100		153	95		234	245	59	176	326	372	425	472	287	370

Table E.176. E2a: Percentage of physicians reporting that 25 percent or more of their time is spent doing work that could be done by someone with less training, by subgroup, 2016^a

Practice characteristic	CPC and comparison physicians	<i>p</i> -value	CPC physicians	Comparison physicians	<i>p</i> -value on the differential effect between CPC and comparison (subgroup*treatment status)
Practice is in a system	56	0.042	57	55	0.590
Practice is <i>not</i> in a system	47		50	43	
1 clinician	46	0.258 ^b	44	47	0.561 ^b
2 to 3 clinicians	45		54	38	
4 to 5 clinicians	48		45	54	
6 clinicians or more	56		58	52	
Average HCC score in practice is <i>above</i> sample median	52	0.479	54	51	0.718
Average HCC score in practice is <i>below</i> sample median	49		52	46	

^a For the alignment of work with training questions, we excluded responses of “does not apply or don’t know” from the analysis. The percentage of physicians reporting does not apply or don’t know was between 1 and 33 percent depending on the question.

^b We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.177. E2b: Proportion of time each week the respondent does work for which they do not have enough training

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
<25%	70	69	0.87	66	64	0.92	72	60	0.04	67	70	n.a.	54	53	61	60	50	59	56	56	57	64
25%-49%	3	3		2	2		2	2		1	1		12	10	6	7	8	7	7	11	4	5
50%-74%	0	1		1	1		0	0		0	0		4	3	0	3	3	3	1	4	2	4
75%+	1	1		0	0		1	0		0	1		2	1	0	3	4	2	2	3	1	1
Does not apply or Don't know	25	26		30	33		24	39		32	28		29	34	34	27	35	30	33	26	35	27
N	623	441		615	488		149	104		159	100		269	274	62	206	486	528	522	565	325	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.178. E2b: Proportion of time each week the respondent does work for which they do not have enough training, excluding responses of don't know or does not apply

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
<25%	94	94	0.74	95	95	0.95	95	97	0.34	98	97	n.a.	75	81	92	83	77	84	84	76	89	87
25%-49%	5	4		3	3		3	3		1	1		17	15	8	9	12	10	11	15	7	7
50%-74%	0	1		1	2		1	0		0	0		5	4	0	4	4	4	2	5	2	5
75%+	1	1		0	0		1	0		1	1		2	1	0	4	6	3	3	4	2	1
N	441	319		429	341		115	65		107	69		190	182	41	151	315	350	335	414	207	285

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p -values as not applicable (n.a.).

Table E.179. E2b: Percentage of physicians reporting that less than 25 percent of their time is spent doing work for which they do not have enough training, by subgroup, 2016^a

Practice characteristic	CPC and comparison physicians	<i>p</i> -value	CPC physicians	Comparison physicians	<i>p</i> -value on the differential effect between CPC and comparison (subgroup*treatment status)
Practice is in a system	97	0.088	98	96	0.291
Practice is <i>not</i> in a system	94		93	94	
1 clinician	94	0.655 ^b	94	95	0.853 ^b
2 to 3 clinicians	95		95	95	
4 to 5 clinicians	95		95	94	
6 clinicians or more	96		96	96	
Average HCC score in practice is <i>above</i> sample median	96	0.282	95	97	0.316
Average HCC score in practice is <i>below</i> sample median	94		95	93	

^a For the alignment of work with training questions, we excluded responses of "does not apply or don't know" from the analysis. The percentage of physicians reporting does not apply or don't know was between 1 and 33 percent depending on the question.

^b We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.180. E2c: Proportion of time each week the respondent does work that is well-matched to their training

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
<25%	2	1	0.26	1	1	0.87	0	0	n.a.	2	0	n.a.	3	2	2	3	4	4	2	2	3	2
25%-49%	7	6		6	6		1	0		1	1		5	6	10	6	4	5	4	2	4	9
50%-74%	30	26		27	28		12	14		11	10		17	18	11	17	14	11	9	9	13	12
75%+	61	67		64	65		85	85		86	89		71	69	77	68	73	75	82	85	78	75
Does not apply or Don't know	0	1		2	1		1	1		0	0		4	4	0	6	6	6	4	2	2	2
N	625	442		618	490		150	104		159	100		269	274	63	206	487	532	524	564	325	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

E.122

Table E.181. E2c: Proportion of time each week the respondent does work that is well-matched to their training, excluding responses of don't know or does not apply

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
<25%	2	1	0.24	1	1	0.99	0	0	n.a.	2	0	0.49	3	2	2	3	4	4	2	2	3	2
25%-49%	7	6		6	6		1	0		1	1		6	7	10	7	4	6	4	2	4	9
50%-74%	30	26		27	28		12	14		11	10		17	19	11	18	14	11	9	10	13	13
75%+	61	67		65	65		86	86		86	89		74	72	77	72	78	79	85	87	80	77
N	621	438		612	485		149	103		159	100		257	263	63	194	457	498	504	550	316	407

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.182. E2c: Percentage of physicians reporting that 75 percent or more of their time is spent doing work that is well matched to their training, by subgroup, 2016

Practice characteristic	CPC and comparison physicians		<i>p</i> -value	CPC physicians		Comparison physicians	<i>p</i> -value on the differential effect between CPC and comparison (subgroup*treatment status)
Practice is in a system	60		0.037	65	55		0.044
Practice is <i>not</i> in a system	69			66	72		
1 clinician	72		0.138 ^b	70	72		0.610 ^b
2 to 3 clinicians	71			66	75		
4 to 5 clinicians	65			69	60		
6 clinicians or more	61			63	58		
Average HCC score in practice is <i>above</i> sample median	65		0.832	63	67		0.317
Average HCC score in practice is <i>below</i> sample median	66			68	64		

^a For the alignment of work with training questions, we excluded responses of "does not apply or don't know" from the analysis. The percentage of physicians reporting does not apply or don't know was between 1 and 33 percent depending on the question.

^b We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.183. Control over Work scale (range from 0 [worst] to 1 [best]) (all respondents)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Control over Work	0.5	0.54	0.07	0.52	0.55	0.2	0.4	0.42	0.64	0.4	0.44	0.23	0.56	0.57	0.43	0.43	0.35	0.36	0.33	0.36	0.33	0.33
N	626	442		624	490		150	103		159	100		268	272	63	205	483	533	524	563	324	417

Note: This scale includes items E3a-g. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing, don't know, or does not apply.

Table E.184. Control over work scale (range from 0 [less control] to 1 [more control]), by subgroup, 2016

Practice characteristic	CPC and comparison physicians	<i>p</i> -value	CPC physicians	Comparison physicians	<i>p</i> -value on the differential effect between CPC and comparison (subgroup*treatment status)
Practice is in a system	0.45	<0.001	0.44	0.46	0.663
Practice is <i>not</i> in a system	0.59		0.57	0.61	
1 clinician	0.61	0.051 ^a	0.63	0.60	0.530 ^a
2 to 3 clinicians	0.53		0.49	0.56	
4 to 5 clinicians	0.53		0.52	0.54	
6 clinicians or more	0.52		0.51	0.53	
Average HCC score in practice is <i>above</i> sample median	0.53	0.741	0.52	0.54	0.792
Average HCC score in practice is <i>below</i> sample median	0.54		0.52	0.56	

^a We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.185. E3a: The amount of control the respondent has over the hours they work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	8	7	0.22	9	8	0.5	20	20	0.78	18	10	n.a.	12	10	18	23	34	36	31	33	32	37
Some control	22	21		23	18		23	22		31	38		20	15	29	25	23	24	28	24	25	19
Moderate control	28	21		22	23		28	24		22	18		21	29	22	19	16	14	21	20	15	21
Great control	42	51		46	51		29	34		29	34		45	45	30	32	22	24	19	21	27	21
Does not apply or Don't know	0	0		0	0		1	0		0	0		2	1	1	1	4	2	1	1	1	2
N	626	442		622	491		149	103		159	100		270	274	63	205	487	531	522	566	325	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.186. E3b: The amount of control the respondent has over details of the office or their practice schedule

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	9	6	n.a.	8	6	0.14	24	26	0.76	19	21	0.88	9	8	39	46	50	52	52	49	47	50
Some control	25	20		20	19		30	31		32	33		23	16	16	16	13	14	19	18	24	18
Moderate control	25	23		26	19		23	20		26	28		25	23	16	12	11	10	13	12	9	14
Great control	41	52		45	56		22	23		22	17		40	45	23	18	15	17	10	15	18	14
Does not apply or Don't know	0	0		0	0		1	0		1	1		2	7	7	8	11	7	6	5	3	4
N	626	442		622	491		150	103		158	100		269	272	63	204	483	530	522	565	325	413

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.187. E3c: The amount of control the respondent has over the volume of paperwork they have to do (on paper or electronic)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	65	62	n.a.	68	63	0.19	60	67	n.a.	63	49	n.a.	29	30	54	49	54	55	63	61	63	62
Some control	22	21		20	24		24	19		21	30		30	31	23	19	14	15	18	20	17	21
Moderate control	9	12		8	6		13	10		12	17		23	22	11	18	14	13	9	9	11	9
Great control	4	5		4	7		3	4		4	3		17	14	9	12	11	13	8	9	7	6
Does not apply or Don't know	0	0		0	0		0	0		0	0		2	4	2	2	7	4	2	2	2	2
N	625	441		624	491		150	103		159	100		269	274	63	206	484	531	524	565	323	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.188. E3d: The amount of control the respondent has over work interruptions (e.g., telephone calls, unscheduled patients)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	18	23	0.01	25	25	0.78	27	32	0.52	31	18	n.a.	37	38	50	43	61	62	62	53	63	59
Some control	52	42		46	46		48	37		46	46		35	30	20	32	14	16	19	24	22	26
Moderate control	23	24		19	18		18	18		19	25		18	18	17	16	10	10	11	14	9	10
Great control	6	12		9	11		7	11		4	12		7	10	9	6	9	9	6	7	5	4
Does not apply or Don't know	1	0		0	0		0	2		0	0		3	4	3	3	7	3	2	2	2	1
N	624	442		619	488		150	103		159	100		270	273	63	206	486	531	523	566	325	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.189. E3e: The amount of control the respondent has over workplace issues (e.g., office space, facilities, supplies)

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	23	17	0.21	20	16	0.27	42	42	0.35	44	40	0.69	16	18	38	42	43	41	42	42	39	45
Some control	29	29		35	33		33	25		29	36		27	23	31	21	20	26	29	27	34	25
Moderate control	23	24		17	22		12	14		13	14		21	26	12	17	16	12	11	16	13	17
Great control	22	28		26	28		13	14		11	9		34	30	17	16	11	14	13	11	11	9
Does not apply or Don't know	3	1		2	1		1	5		2	1		1	3	1	4	10	6	5	5	3	4
N	626	442		622	491		150	103		159	100		268	273	63	205	485	531	524	566	324	413

Table E.190. E3f: The amount of control the respondent has over the pace of their work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	11	9	0.35	10	11	0.22	19	18	n.a.	20	19	n.a.	8	8	22	18	28	26	28	21	32	23
Some control	31	26		27	22		40	37		36	29		23	20	15	17	19	21	21	25	25	27
Moderate control	33	37		34	30		23	27		29	30		27	26	25	27	18	20	19	23	18	21
Great control	24	28		29	37		18	18		15	21		40	44	38	37	31	32	30	31	23	28
Does not apply or Don't know	0	0		0	0		0	0		0	0		1	2	0	0	3	1	2	1	1	1
N	626	442		620	491		150	103		159	99		270	274	63	206	487	533	525	565	324	414

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.191. E3g: The amount of control the respondent has over the allotment of additional time for difficult-to-help patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Slight/no control	13	14	0.87	11	11	0.98	22	15	0.32	17	15	n.a.	14	10	26	18	27	29	39	32	36	31
Some control	31	31		27	26		38	34		37	28		20	24	13	25	24	23	29	31	31	29
Moderate control	30	32		30	30		23	31		29	31		20	22	23	24	17	17	18	22	19	24
Great control	24	24		32	32		17	20		17	25		25	20	31	27	15	18	13	12	11	14
Does not apply or Don't know	1	0		0	1		1	0		0	0		21	23	8	6	17	13	2	3	3	2
N	626	442		621	490		150	103		159	99		270	274	63	206	487	528	525	566	325	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.192. E4: Respondent is satisfied overall with current job

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly disagree	5	4	0.75	5	7	0.77	7	6	0.9	7	4	0.49	5	5	0	3	5	4	6	6	4	4
Disagree	10	12		10	11		7	6		6	10		5	3	4	7	7	7	6	4	6	5
Neither disagree or agree	10	12		8	9		11	13		10	6		9	6	15	7	14	13	13	13	13	14
Agree	49	46		48	45		36	41		43	43		42	39	43	41	47	42	39	46	41	43
Strongly agree	27	27		29	29		38	34		34	37		39	46	37	41	28	33	36	31	36	34
N	620	434		617	486		148	99		156	98		266	271	61	205	479	529	520	560	324	410

E.128

Table E.193. E4: Percentage of physicians that agree or strongly agree that they are satisfied with their current job, by subgroup, 2016

Practice characteristic	CPC and comparison physicians	p-value	CPC physicians	Comparison physicians	p-value on the differential effect between CPC and comparison (subgroup*treatment status)
Practice is in a system	71	0.086	75	67	0.297
Practice is <i>not</i> in a system	78		78	77	
1 clinician	71	0.601 ^a	76	68	0.760 ^a
2 to 3 clinicians	75		70	78	
4 to 5 clinicians	77		84	69	
6 clinicians or more	75		77	73	
Average HCC score in practice is <i>above</i> sample median	78	0.096	82	75	0.390
Average HCC score in practice is <i>below</i> sample median	72		73	72	

^a We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.194. Maslach Burnout Inventory: Emotional exhaustion subscale (range from 0 [more exhausted] to 1 [less exhausted])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Exhaustion	0.57	0.55	0.41	0.57	0.57	0.67	0.6	0.59	0.74	0.59	0.61	0.54	0.68	0.72	0.61	0.71	0.67	0.7	0.7	0.7	0.7	0.69	0.67
N	625	442		625	490		150	104		159	101		266	274	62	206	486	533	511	567	321	414	

Note: This subscale includes items E5c, E5d, and E5g. Each of the items were reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing.
 The Maslach Burnout Inventory contains 22 items divided into the three subscales (Maslach et al. 1996). We use an abbreviated version of the subscales containing 9 items, 3 items in each subscale, used by McManus et al. (2002) in an evaluation of the Patient Aligned Care Team (PACT) Personnel Survey.

Table E.195. Maslach Burnout Inventory: Depersonalization subscale (range from 0 [more depersonalization] to 1 [less depersonalization])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Depersonalization	0.87	0.84	0.02	0.87	0.86	0.2	0.9	0.88	0.38	0.89	0.9	0.38	0.94	0.94	0.86	0.93	0.92	0.93	0.93	0.92	0.92	0.92	0.94
N	625	442		625	491		150	104		159	101		265	274	60	207	485	534	512	567	321	415	

Note: This subscale includes items E5b, E5e, and E5h. Each of the items were reoriented. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing.
 The Maslach Burnout Inventory contains 22 items divided into the three subscales (Maslach et al. 1996). We use an abbreviated version of the subscales containing 9 items, 3 items in each subscale, used by McManus et al. (2002) in an evaluation of the Patient Aligned Care Team (PACT) Personnel Survey.

Table E.196. Maslach Burnout Inventory: Personal accomplishment subscale (range from 0 [less accomplishment] to 1 [more accomplishment])

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Accomplishment	0.88	0.86	0.05	0.87	0.85	0.07	0.9	0.91	0.32	0.86	0.89	0.03	0.75	0.76	0.78	0.83	0.76	0.75	0.85	0.83	0.84	0.86
N	625	442		626	491		150	104		159	101		264	274	61	206	484	534	510	567	321	415

Note: This subscale includes items E5a, E5f, and E5i. Responses were rescaled to range from 0 to 1 before averaging the responses that were not missing.
 The Maslach Burnout Inventory contains 22 items divided into the three subscales (Maslach et al. 1996). We use an abbreviated version of the subscales containing 9 items, 3 items in each subscale, used by McManus et al. (2002) in an evaluation of the Patient Aligned Care Team (PACT) Personnel Survey.

Table E.197. E5a: Respondent deals effectively with patients' problems

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	0	0	n.a.	0	0	n.a.	0	0	n.a.	1	0	n.a.	4	6	1	3	3	4	0	1	0	0
A few times a year or less	0	0		0	0		0	0		0	0		4	4	1	1	2	2	1	0	0	0
Once a month or less	0	0		0	0		0	0		0	0		2	4	0	2	2	1	0	1	1	1
A few times a month	1	1		1	2		1	1		0	2		11	9	4	2	3	5	4	3	4	2
Once a week	0	2		1	2		2	2		2	1		9	8	2	6	3	2	4	4	3	2
A few times a week	15	14		14	14		13	10		16	9		24	21	27	18	15	17	14	15	22	15
Every day	84	82		84	82		85	87		80	88		47	48	64	68	71	68	76	76	70	79
N	623	441		626	491		150	104		157	101		251	268	59	205	469	521	503	561	318	412

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.198. E5b: Respondent feels they treat some patients as if they were impersonal objects

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	58	48	0.09	64	58	0.28	69	64	n.a.	68	74	0.41	81	88	76	83	82	86	81	83	78	83
A few times a year or less	22	25		19	19		22	20		18	16		15	7	4	10	8	8	11	8	11	11
Once a month or less	8	8		6	10		4	2		7	3		0	2	4	2	4	3	2	3	6	3
A few times a month	6	10		6	6		2	7		5	3		2	1	5	2	2	1	3	3	2	1
Once a week	3	2		1	3		0	1		1	0		1	1	0	2	1	1	0	1	2	0
A few times a week	3	6		3	3		2	6		2	2		0	1	4	0	1	1	2	1	1	1
Every day	0	1		1	1		0	0		0	1		1	1	7	1	2	1	1	1	1	0
N	622	441		623	490		150	103		159	101		257	269	56	206	478	522	507	564	319	409

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.199. E5c: Respondent feels emotionally drained from work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	6	8	0.88	7	5	0.27	4	2	0.19	2	1	0.13	8	17	20	17	14	18	18	17	15	14
A few times a year or less	15	12		15	17		17	20		19	24		22	24	19	20	18	20	18	23	20	20
Once a month or less	11	10		11	8		14	14		9	19		12	12	6	14	12	12	13	13	15	14
A few times a month	20	19		18	22		22	17		28	18		24	25	11	19	24	19	17	20	17	19
Once a week	12	14		18	13		14	7		11	13		10	7	10	14	6	12	10	9	9	10
A few times a week	26	25		22	22		17	31		21	22		19	13	29	11	17	13	17	12	17	16
Every day	11	12		10	13		12	8		10	4		6	3	5	5	8	6	7	6	6	6
N	624	441		624	489		150	104		159	99		263	271	61	206	485	530	510	566	319	413

Table E.200. E5d: Respondent feels fatigued from facing another day on the job

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	15	15	0.45	17	16	0.85	16	19	0.09	13	15	0.87	24	29	25	31	26	33	27	28	28	25
A few times a year or less	22	19		21	19		21	21		22	24		23	24	11	23	24	20	22	22	20	20
Once a month or less	16	13		14	14		23	17		25	16		15	13	6	12	14	12	11	12	13	15
A few times a month	14	20		17	16		10	22		13	14		16	16	18	14	13	12	17	15	11	14
Once a week	11	10		10	12		12	6		8	9		7	6	5	9	7	5	7	7	8	6
A few times a week	14	14		16	15		7	11		12	16		10	10	29	7	10	12	10	10	16	13
Every day	7	9		5	7		11	5		7	6		5	2	6	4	7	6	6	6	4	7
N	625	442		625	487		150	104		159	101		265	274	62	206	484	533	509	566	320	413

Table E.201. E5e: Respondent has become more callous towards people since taking the job

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	50	36	0.01	45	45	0.17	49	46	0.9	46	46	0.9	67	65	49	69	66	70	65	67	66	67
A few times a year or less	23	30		26	23		26	28		27	28		20	18	14	13	14	12	15	14	12	15
Once a month or less	7	12		10	11		8	9		10	11		5	6	15	6	6	5	6	7	8	6
A few times a month	12	10		9	9		8	8		11	8		4	5	12	5	6	7	6	5	8	5
Once a week	4	6		4	5		3	1		2	3		3	1	0	1	3	1	2	2	3	1
A few times a week	4	5		5	3		5	7		4	3		2	3	5	4	2	2	5	3	3	4
Every day	1	1		1	3		1	1		0	1		0	1	5	3	4	3	1	3	1	1
N	623	440		621	487		150	104		159	101		263	274	60	206	482	527	508	561	321	410

Table E.202. E5f: Respondent feels they are positively influencing others' lives through work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	0	0	0.43	1	1	0.37	0	0	n.a.	0	0	n.a.	1	2	5	1	7	6	1	2	2	1
A few times a year or less	0	0		0	1		0	0		0	0		2	2	5	2	3	2	1	1	1	1
Once a month or less	1	2		1	1		0	1		1	0		5	3	2	2	4	3	1	2	4	2
A few times a month	4	4		2	5		2	4		5	2		12	11	10	8	10	13	8	10	8	8
Once a week	5	7		5	8		3	5		7	2		14	6	8	7	5	6	6	8	6	7
A few times a week	28	24		26	21		29	19		34	32		25	23	26	17	22	22	25	24	20	22
Every day	62	63		64	64		66	72		53	64		41	53	44	63	49	47	58	52	59	59
N	624	440		625	488		150	104		159	101		262	273	61	206	480	532	509	566	321	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.203. E5g: Respondent feels working with people all day is a strain

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	32	27	0.21	30	32	0.94	35	33	0.63	32	41	0.38	53	55	45	56	54	57	63	58	56	54
A few times a year or less	25	25		24	25		27	25		27	25		32	26	24	23	21	19	17	20	23	19
Once a month or less	10	16		12	11		17	12		12	10		4	6	8	9	8	9	8	9	8	7
A few times a month	13	13		14	13		9	13		13	6		4	6	8	5	7	8	6	6	7	10
Once a week	8	5		7	5		4	4		4	9		4	3	8	2	4	2	3	3	3	2
A few times a week	9	11		10	10		6	7		9	6		3	3	0	3	4	3	3	2	2	7
Every day	3	4		4	4		2	6		2	2		0	1	6	1	1	1	1	2	1	0
N	623	441		624	488		150	104		159	101		264	270	60	204	483	530	508	565	321	414

Table E.204. E5h: Respondent doesn't care what happens to some patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	73	74	0.47	77	76	0.13	85	85	0.31	82	86	n.a.	94	95	80	90	94	94	94	91	90	94
A few times a year or less	19	17		15	14		11	11		13	13		5	4	12	7	3	3	4	5	8	3
Once a month or less	5	4		6	5		2	0		3	1		1	0	2	2	2	1	1	1	2	2
A few times a month	2	2		1	3		1	1		1	1		0	0	0	0	1	1	1	1	0	1
Once a week	0	2		0	0		1	3		0	0		0	1	0	0	0	0	0	1	0	0
A few times a week	0	0		0	1		1	0		2	0		0	0	6	0	0	0	1	0	0	0
Every day	0	0		0	1		1	0		0	0		0	0	0	1	0	1	0	0	0	0
N	625	441		625	490		150	104		158	101		264	273	60	206	482	532	510	565	321	415

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the *p*-values as not applicable (n.a.).

Table E.205. E5i: Respondent feels exhilarated after working closely with patients

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	2	4	0.18	3	4	0.06	1	0	0.74	0	3	0.29	7	8	11	5	13	18	6	8	5	4
A few times a year or less	2	3		2	6		2	1		4	1		4	6	7	4	5	5	4	4	4	4
Once a month or less	5	7		6	5		5	3		7	3		8	8	5	4	8	5	5	4	6	5
A few times a month	12	14		14	20		14	11		13	10		17	15	5	11	13	13	9	15	10	9
Once a week	10	13		11	8		7	5		14	17		11	8	10	10	7	8	8	6	10	9
A few times a week	40	34		38	35		39	41		36	36		24	22	37	29	20	24	33	27	31	31
Every day	28	25		25	22		33	39		25	31		29	33	26	37	33	27	35	36	35	38
N	622	441		622	487		150	104		158	101		255	263	59	203	467	517	502	561	318	409

Table E.206. E5j: Respondent feels burned out from work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Never	17	14	0.22	16	16	0.41	23	19	0.71	19	20	0.98	23	34	32	36	30	35	32	32	36	36
A few times a year or less	24	28		25	27		34	38		34	38		40	31	23	27	31	26	27	27	31	27
Once a month or less	13	16		15	10		10	9		11	8		13	8	4	10	13	10	10	12	7	10
A few times a month	21	17		16	15		11	18		15	14		12	16	18	13	12	13	16	13	13	12
Once a week	8	5		6	10		6	7		7	5		5	4	9	5	4	5	5	5	5	3
A few times a week	11	13		15	14		9	5		11	11		6	6	9	6	8	6	6	7	5	7
Every day	7	8		6	9		7	5		4	4		2	2	6	3	3	5	4	4	3	5
N	624	441		626	488		150	104		159	101		264	274	61	205	484	532	509	566	321	412

Table E.207. E6: Using respondent's own definition of burnout, statement that best describes respondent's situation at work

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses		
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
I enjoy my work. I have no symptoms of burnout	13	11	0.84	15	15	0.16	21	13	0	10	19	0.31	12	17	18	30	17	24	22	22	22	18	
Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out.	55	59		52	49		61	60		58	53		66	58	60	54	61	55	56	56	60	59	
I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.	21	21		24	29		11	26		25	19		14	22	10	12	16	17	17	17	14	15	
The symptoms of burnout that I'm experiencing won't go away. I think about frustrations at work a lot.	9	7		7	4		4	1		6	9		6	2	11	3	4	3	4	3	3	6	
I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.	2	2		2	4		3	0		0	1		1	0	0	1	2	1	1	1	2	2	
N	625	443		617	488		147	104		159	103		269	274	61	204	483	530	510	559	321	413	

Table E.208. Percentage of physicians reporting high levels of burnout, by subgroup, 2016^a

Practice characteristic	CPC and comparison physicians			CPC physicians	Comparison physicians	<i>p</i> -value on the differential effect between CPC and comparison (subgroup*treatment status)
	CPC	Comp	<i>p</i> -value			
Practice is in a system	37		0.494	36	37	0.822
Practice is <i>not</i> in a system	34			32	35	
1 clinician	35		0.992 ^b	20	42	0.255 ^b
2 to 3 clinicians	36			41	32	
4 to 5 clinicians	33			34	31	
6 clinicians or more	35			32	39	
Average HCC score in practice is <i>above</i> sample median	35		0.971	34	36	0.903
Average HCC score in practice is <i>below</i> sample median	35			34	36	

^a Following the literature, we define high levels of burnout as having one of the following three responses: (1) I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion; (2) the symptoms of burnout that I'm experiencing won't go away, and I think about frustrations at work a lot; and (3) I feel completely burned out, often wonder if I can go on, and am at the point where I may need some changes or may need to seek some sort of help (Rohland et al. 2004).

^b We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.209. E7: Likelihood of respondent leaving their current practice within two years

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
None	48	46	0.37	52	44	0.17	46	49	0.79	38	41	0.49	59	54	34	47	44	45	44	44	49	41
Slight	31	26		24	26		28	31		37	32		21	21	24	25	24	24	27	24	25	29
Moderate	12	14		11	15		12	11		12	10		14	14	19	13	14	9	13	15	12	11
Likely	6	10		7	10		9	5		10	8		5	8	18	11	11	15	12	12	10	14
Definitely	3	4		7	5		6	4		3	8		1	2	4	4	7	7	4	5	4	6
N	625	441		614	489		146	103		157	102		268	270	61	199	476	507	503	559	319	409

Table E.210. E7: Respondent's current age, by likelihood of respondent leaving their current practice within two years

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Reported that there is no, slight, or a moderate chance they will leave their current practice																						
Less than 20 years	0	0.26	0.26	0	0.22	0.69	0	0	n.a.	0	0	n.a.	0	0	0	0.55	0.19	0.14	0.3	0.68	0	0
20-29	0	0.33		0.29	0.23		5	3		6	13		2	2	9	16	14	18	20	29	14	12
30-39	18	13		16	20		26	21		31	21		22	21	23	29	21	23	34	26	22	23
40-49	32	29		31	29		29	34		26	27		25	26	27	24	20	24	22	23	26	24
50-59	33	39		30	27		35	27		26	28		33	36	30	21	28	21	20	16	27	27
60 years or older	17	19		23	23		5	15		11	11		18	15	12	9	16	13	4	5	11	13
N	563	375		535	418		125	93		136	86		250	241	45	170	392	389	422	471	275	327
Reported that they will likely leave or will definitely leave their current practice																						
Less than 20 years	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	0	0	0	0	0	0.39	0	0
20-29	0	0		0	0		12	0		0	11		0	5	9	29	36	28	33	43	20	17
30-39	19	13		11	12		21	83		19	6		4	23	34	32	17	19	31	29	20	32
40-49	13	25		13	17		22	0		23	30		39	14	12	29	13	17	19	12	12	17
50-59	14	23		24	9		11	8		14	23		27	16	28	3	20	15	13	13	17	11
60 years or older	54	38		52	62		32	9		44	30		29	43	17	7	14	21	5	4	32	23
N	54	60		77	67		20	8		18	16		18	26	15	28	76	112	75	83	40	74

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.211. Percentage of physicians reporting that they are likely to or definitely leaving their current practice within two years, by subgroup, 2016

Practice characteristic	CPC and comparison physicians	p-value	CPC physicians	Comparison physicians	p-value on the differential effect between CPC and comparison (subgroup*treatment status)
Practice is in a system	16	0.406	15	18	0.648
Practice is <i>not</i> in a system	14		14	14	
1 clinician	22	0.407 ^a	19	24	0.830 ^a
2 to 3 clinicians	10		15	6	
4 to 5 clinicians	14		14	14	
6 clinicians or more	16		13	20	
Average HCC score in practice is <i>above</i> sample median	14	0.853	11	17	0.207
Average HCC score in practice is <i>below</i> sample median	15		16	14	

^a We tested the difference between practices with 1 clinician and 6 or more clinicians

4. Ratings of CPC

a. Ratings of CPC payments and assistance

Table E.212. H2: Overall, considering the amount of work required by CPC, respondent's assessment of how adequate or inadequate the CPC payments were across all payers

	Primary Care Physician		NP/PA	
	2016		2016	
	CPC		CPC	
More than adequate	1		2	
Adequate	30		9	
Less than adequate	35		15	
Do not know - not familiar with CPC payments or costs of doing CPC work	25		61	
Do not know - no opinion of CPC payment adequacy	9		13	
N	583		148	

Table E.213. H4a: Rating of how useful this assistance has been to respondent in improving primary care: CPC webinars

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	5	4	21	9	7
Somewhat useful	28	21	42	20	28
Not very useful	16	7	11	5	8
Not at all useful	6	2	1	1	1
Never received or attended	46	67	25	65	56
N	573	143	171	508	397

Table E.214. H4a: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: CPC webinars

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	8	12	28	27	16
Somewhat useful	51	64	56	56	63
Not very useful	29	20	14	13	18
Not at all useful	11	5	2	4	3
N	343	50	128	199	195

Table E.215. H4b: Rating of how useful this assistance has been to respondent in improving primary care: practice-to-practice learning facilitated by CPC

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	8	4	23	14	10
Somewhat useful	30	20	37	23	29
Not very useful	11	8	4	3	4
Not at all useful	4	1	0	1	1
Never received or attended	48	67	35	59	57
N	572	143	170	504	399

Table E.216. H4b: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: practice-to-practice learning facilitated by CPC

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	15	12	35	34	23
Somewhat useful	57	62	57	56	66
Not very useful	20	23	7	7	9
Not at all useful	7	4	1	2	2
N	330	51	111	216	184

Table E.217. H4c: Rating of how useful this assistance has been to respondent in improving primary care: in-person coaching at this practice provided by CPC

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	11	10	24	22	17
Somewhat useful	20	21	24	24	20
Not very useful	7	8	3	3	4
Not at all useful	4	1	3	1	1
Never received or attended	58	62	46	51	58
N	568	141	170	498	397

Table E.218. H4c: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: in-person coaching at this practice provided by CPC

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	26	25	44	45	40
Somewhat useful	47	54	45	49	48
Not very useful	17	20	6	5	10
Not at all useful	10	2	5	1	2
N	268	58	92	248	181

Table E.219. H4d: Rating of how useful this assistance has been to respondent in improving primary care: CPC-facilitated in-person meetings for practices and others in CPC

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	11	12	26	22	18
Somewhat useful	35	20	39	23	23
Not very useful	8	9	2	3	6
Not at all useful	4	0	0	0	1
Never received or attended	41	60	33	52	52
N	571	143	171	501	396

Table E.220. H4d: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: CPC-facilitated in-person meetings for practices and others in CPC

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	19	30	39	46	37
Somewhat useful	60	49	58	47	49
Not very useful	14	21	2	6	12
Not at all useful	7	0	1	0	2
N	346	60	114	246	202

Table E.221. H4e: Rating of how useful this assistance has been to respondent in improving primary care: CPC Connect

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	3	3	12	8	5
Somewhat useful	20	12	32	14	17
Not very useful	10	5	14	4	7
Not at all useful	7	1	3	1	2
Never received or attended	61	80	40	73	69
N	567	143	171	503	399

Table E.222. H4e: Among those who received or attended, rating of how useful this assistance has been to respondent in improving primary care: CPC Connect

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very useful	8	13	21	31	17
Somewhat useful	50	60	53	51	56
Not very useful	25	23	23	15	21
Not at all useful	17	3	4	3	6
N	245	30	103	153	148

b. Overall ratings of CPC

Table E.223. H1: Respondent’s assessment of which individual(s) in the practice made a substantive contribution of time or leadership to implement practice improvements to meet CPC Milestones

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Only one person did most of the substantive work on CPC	4	3	4	6	4	2	3
A small group did most of the substantive work on CPC	51	51	42	41	24	30	37
Most or all of the practice was involved in the substantive work on CPC	41	35	52	42	39	44	41
Does not apply or Don't know	4	10	2	11	33	23	19
N	585	148	271	201	514	554	405

Table E.224. H5a: How important respondent believes the following is to improving the care respondent provides to patients: providing around-the-clock access to care to your patients

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	55	60	85	75	73
Somewhat important	33	29	11	21	23
Not very important	8	9	3	3	3
Not at all important	4	2	1	1	1
N	573	142	173	509	391

Table E.225. H5b: How important respondent believes the following is to improving the care respondent provides to patients: providing continuity of care to your patients

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	81	89	94	90	87
Somewhat important	15	10	5	9	13
Not very important	2	2	1	1	1
Not at all important	2	0	0	1	0
N	575	142	177	511	397

Table E.226. H5c: How important respondent believes the following is to improving the care respondent provides to patients: planning for the chronic care needs of your patients

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	81	86	94	87	84
Somewhat important	15	12	5	12	15
Not very important	2	2	1	0	1
Not at all important	2	0	0	1	0
N	575	142	177	509	396

Table E.227. H5d: How important respondent believes the following is to improving the care respondent provides to patients: planning for the preventive care needs of your patients

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	79	87	90	88	84
Somewhat important	16	11	9	11	15
Not very important	3	2	1	0	1
Not at all important	2	0	0	1	0
N	574	142	177	510	397

Table E.228. H5e: How important respondent believes the following is to improving the care respondent provides to patients: stratifying patients by risk level

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	38	41	63	67	59
Somewhat important	47	47	33	29	36
Not very important	12	11	3	3	3
Not at all important	3	1	1	2	1
N	577	142	176	506	395

Table E.229. H5f: How important respondent believes the following is to improving the care respondent provides to patients: providing patients with risk-based care management services

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	49	50	72	71	72
Somewhat important	42	46	26	26	26
Not very important	7	4	2	2	2
Not at all important	2	0	0	1	0
N	577	141	176	506	392

Table E.230. H5g: How important respondent believes the following is to improving the care respondent provides to patients: providing behavioral or mental health services integrated within primary care

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	62	75	82	81	72
Somewhat important	27	22	16	17	25
Not very important	8	2	2	1	3
Not at all important	3	1	0	1	0
N	572	142	174	509	395

Table E.231. H5h: How important respondent believes the following is to improving the care respondent provides to patients: providing medication management to high-risk patients

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	70	79	93	88	82
Somewhat important	24	19	6	11	17
Not very important	4	2	2	0	1
Not at all important	2	0	0	1	0
N	575	142	177	511	396

Table E.232. H5i: How important respondent believes the following is to improving the care respondent provides to patients: engaging patients and their families in their care

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	70	73	89	83	79
Somewhat important	23	24	9	15	20
Not very important	5	2	2	1	1
Not at all important	2	1	0	1	0
N	574	142	177	511	395

Table E.233. H5j: How important respondent believes the following is to improving the care respondent provides to patients: collecting and using patient feedback to improve quality of care and patient experience over time

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	40	51	72	75	68
Somewhat important	42	41	24	21	29
Not very important	14	9	5	3	4
Not at all important	4	0	0	1	0
N	577	142	177	510	394

Table E.234. H5k: How important respondent believes the following is to improving the care respondent provides to patients: making sure that care is coordinated across the medical neighborhood

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	63	71	87	78	77
Somewhat important	32	27	11	18	22
Not very important	4	2	2	2	1
Not at all important	2	0	0	1	0
N	575	142	177	509	395

Table E.235. H5l: How important respondent believes the following is to improving the care respondent provides to patients: using data feedback on clinical measures to improve quality of care over time

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	43	52	69	69	66
Somewhat important	44	42	26	28	30
Not very important	9	6	5	2	4
Not at all important	4	0	1	1	0
N	578	141	177	510	397

Table E.236. H5m: How important respondent believes the following is to improving the care respondent provides to patients: using shared decision-making tools so that providers and patients work together to arrive at care decisions

	Primary Care Physician	NP/PA	Care Manager or Coordinator	Medical Assistants	Nurses
	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC
Very important	37	54	67	75	68
Somewhat important	43	37	27	22	28
Not very important	15	8	5	1	4
Not at all important	5	0	0	1	0
N	573	142	177	507	396

Table E.237. H6: Overall, how much participation in the CPC initiative changed the quality of care or service that respondent currently provides to their patients

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Improved a lot	24	24	54	53	31	39	38
Improved somewhat	56	51	41	36	34	38	39
Did not change	14	12	4	3	6	6	6
Worsened somewhat	2	2	1	1	1	1	1
Worsened a lot	1	1	0	0	0	0	1
Don't know	4	10	1	7	27	16	16
N	585	147	274	206	519	559	403

Table E.238. Percentage of physicians reporting that the CPC initiative improved a lot or somewhat the quality of care or service they provide to their patients, by subgroup, 2016

Practice characteristic	CPC physicians	p-value
Practice is in a system	78	0.572
Practice is <i>not</i> in a system	81	
1 clinician	82	0.879 ^a
2 to 3 clinicians	73	
4 to 5 clinicians	78	
6 clinicians or more	83	
Average HCC score in practice is <i>above</i> sample median	80	0.944
Average HCC score in practice is <i>below</i> sample median	79	

^a We tested the difference between practices with 1 clinician and 6 or more clinicians

Table E.239. H7: Knowing what respondent knows now, if they could go back to when CPC was announced in 2012, how much they would support or oppose their practice's participation in the CPC initiative

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Strongly support	46	38	64	64	33	44	42
Somewhat support	33	33	24	21	18	23	30
Somewhat oppose	7	9	4	2	3	5	6
Strongly oppose	5	3	4	2	2	1	3
Don't know enough about CPC to answer	9	17	5	12	44	27	20
N	580	145	273	206	519	559	405

E.154

Table E.240. Percentage of physicians who, knowing what they know now, would strongly support their practice's participation in CPC if they could go back to 2012, by subgroup 2016

Practice characteristic	CPC physicians	p-value
Practice is in a system	46	0.946
Practice is <i>not</i> in a system	46	
1 clinician	63	0.047 ^a
2 to 3 clinicians	43	
4 to 5 clinicians	45	
6 clinicians or more	46	
Average HCC score in practice is <i>above</i> sample median	51	0.063
Average HCC score in practice is <i>below</i> sample median	40	

^a We tested the difference between practices with 1 clinician and 6 or more clinicians.

Table E.241. H8: The main reason(s) the respondent would support participation in the CPC initiative. Mark all that apply.

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Work on CPC Milestones helps practice make positive changes and improve patient care	74	81	86	89	79	82	82
Work on CPC Milestones improves clinician and staff work satisfaction	27	27	44	42	51	48	45
Financial support provided in CPC is sufficient to support participation	46	26	53	43	30	31	33
Learning support and activities provided in CPC are useful	27	25	50	45	45	41	34
Learning support provided in CPC improves clinician and staff skill development	23	23	34	40	43	42	35
Data/feedback reports provided in CPC are useful	38	36	48	42	40	41	37
Opportunity to contribute to field of primary care practice transformation	48	48	50	58	26	39	41
Other	7	5	3	3	2	3	2
No reasons to support participation in CPC	7	6	4	3	8	3	6
N	530	121	262	182	286	423	329

Table E.242. H8: The main reason(s) the respondent would support participation in the CPC initiative, by whether the respondent would oppose or support their practice's participation in CPC. Mark all that apply.

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Respondent would oppose their practice's participation in CPC if they could go back to when CPC was announced							
Work on CPC Milestones helps practice make positive changes and improve patient care	22	39	16	19	22	39	32
Work on CPC Milestones improves clinician and staff work satisfaction	4	5	4	0	11	12	1
Financial support provided in CPC is sufficient to support participation	7	13	36	9	17	12	16
Learning support and activities provided in CPC are useful	5	11	3	35	18	12	2
Learning support provided in CPC improves clinician and staff skill development	2	11	4	19	16	8	9
Data/feedback reports provided in CPC are useful	9	14	16	0	11	13	16
Opportunity to contribute to field of primary care practice transformation	17	28	18	0	14	12	1
Other	6	12	11	11	10	3	2
No reasons to support participation in CPC	47	25	37	25	48	24	45
N	71	19	21	9	23	37	34
Respondent would support their practice's participation in CPC if they could go back to when CPC was announced							
Work on CPC Milestones helps practice make positive changes and improve patient care	81	88	91	93	84	86	88
Work on CPC Milestones improves clinician and staff work satisfaction	30	30	47	44	54	51	50
Financial support provided in CPC is sufficient to support participation	52	28	55	45	31	33	35
Learning support and activities provided in CPC are useful	30	27	54	46	47	43	37
Learning support provided in CPC improves clinician and staff skill development	26	24	36	41	45	46	38
Data/feedback reports provided in CPC are useful	42	40	51	45	42	43	39
Opportunity to contribute to field of primary care practice transformation	52	52	52	61	27	42	45
Other	7	4	2	3	1	3	2
No reasons to support participation in CPC	1	3	1	1	4	1	2
N	457	101	239	172	263	381	292

Table E.243. H9: The main reason(s) the respondent would oppose participation in the CPC initiative. Mark all that apply.

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
CPC does not allow the practice to join an Accountable Care Organization (ACO)	6	1	6	2	1	1	0
Reporting requirements in CPC are too burdensome	46	43	38	17	13	16	28
Work involved in implementing the CPC Milestones is too burdensome	37	37	24	14	11	16	24
Financial support provided in CPC is insufficient to support participation	35	21	20	8	7	8	12
Insufficient practice staffing to participate in CPC	27	28	28	25	16	19	26
CPC does not substantially improve patient care	12	8	3	4	6	6	8
Other	11	9	6	5	6	7	4
No reasons to oppose participation in CPC	23	28	41	54	65	58	47
N	532	119	261	178	279	418	320

Table E.244. H9: The main reason(s) the respondent would oppose participation in the CPC initiative, by whether the respondent would oppose or support their practice's participation in CPC. Mark all that apply.

	Primary Care Physician	NP/PA	Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016	2016	2016	2016	2016	2016	2016
	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Respondent would oppose their practice's participation in CPC if they could go back to when CPC was announced							
CPC does not allow the practice to join an Accountable Care Organization (ACO)	3	0	15	10	3	4	0
Reporting requirements in CPC are too burdensome	58	69	93	41	34	61	69
Work involved in implementing the CPC Milestones is too burdensome	56	52	86	56	53	60	72
Financial support provided in CPC is insufficient to support participation	58	36	36	49	24	11	24
Insufficient practice staffing to participate in CPC	31	51	57	52	45	42	53
CPC does not substantially improve patient care	66	45	48	35	53	36	53
Other	15	27	19	27	22	11	11
No reasons to oppose participation in CPC	0	0	0	0	5	12	3
N	79	19	21	9	24	39	35
Respondent would support their practice's participation in CPC if they could go back to when CPC was announced							
CPC does not allow the practice to join an Accountable Care Organization (ACO)	6	2	5	2	0.71	1	0.5
Reporting requirements in CPC are too burdensome	44	38	33	15	11	12	24
Work involved in implementing the CPC Milestones is too burdensome	34	34	19	12	7	12	19
Financial support provided in CPC is insufficient to support participation	31	19	18	6	6	7	11
Insufficient practice staffing to participate in CPC	26	24	25	24	13	17	23
CPC does not substantially improve patient care	4	2	0	2	2	3	2
Other	10	7	6	4	4	7	3
No reasons to oppose participation in CPC	27	33	45	56	71	63	52
N	450	99	238	168	255	375	282

5. Characteristics of respondents

a. Clinician and staff characteristics

Table E.245. D9: Average percent of clinician's total compensation that is based on:

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Base salary	44	36	0.04	85	87	0.55
Individual productivity	45	55	0.01	11	10	0.6
Respondent's own management of resources	1	1	0.06	0	0	0.75
Patient satisfaction	2	2	0.1	1	1	0.55
Quality of care	4	3	0.03	1	1	0.53
Share of net revenue	3	3	0.74	1	1	0.9
Other	1	1	0.81	1	0	0.33
N	594	465		148	99	

Table E.246. D9: Average percent of clinician's total compensation, among those with nonzero compensation in that category:

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	p-value	CPC	Comp	p-value
Base salary	77	77	0.9	89	90	0.74
Individual productivity	58	71	0	22	24	0.78
Respondent's own management of resources	6	6	0.66	6	9	0.49
Patient satisfaction	7	5	0.06	5	7	0.41
Quality of care	8	7	0.29	6	5	0.8
Share of net revenue	13	13	0.97	7	6	0.8
Other	17	12	0.44	19	3	0.28

Table E.247. D9: Percent of clinicians with any compensation in these categories:

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Base salary	57	47	0.02	96	97	0.62
Individual productivity	78	77	0.92	51	41	0.18
Respondent's own management of resources	15	10	0.03	5	4	0.8
Patient satisfaction	32	30	0.63	20	20	0.98
Quality of care	48	39	0.06	20	17	0.55
Share of net revenue	24	21	0.57	10	10	0.93
Other	6	9	0.1	3	4	0.92
N	594	465		148	99	

Table E.248. D9: Percent of clinicians with 100 percent of their compensation in these categories:

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Base salary	13	15	0.52	35	50	0.03
Individual productivity	12	20	0.01	2	3	0.87
Respondent's own management of resources	0	0	n.a.	0	0	n.a.
Patient satisfaction	0	0	n.a.	0	0	n.a.
Quality of care	0	0	n.a.	0	0	n.a.
Share of net revenue	0	1	0.35	0	0	n.a.
Other	0	0	0.54	1	0	0.29
N	594	465		148	99	

Table E.249. I1: Respondent's gender

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Male	60	68	0.04	62	68	0.13	14	22	0.09	19	20	0.82	11	4	5	6	0	1	4	6	2	3
N	628	441		628	491		151	102		157	103		271	275	63	204	483	532	520	567	322	410

Table E.250. I2: Respondent's current age

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Less than 20 years	0	0	0.38	0	0	0.52	0	0	n.a.	0	0	n.a.	0	0	0	0	0	0	0	1	0	0
20-29	0	0		0	0		6	2		5	12		2	3	8	18	17	20	22	31	14	13
30-39	18	13		15	19		24	26		29	18		21	20	25	29	21	22	33	27	21	24
40-49	30	29		28	27		30	31		26	27		26	24	26	25	19	22	21	21	25	23
50-59	32	37		29	24		31	26		25	27		33	35	28	19	27	22	19	16	26	25
60 years or older	21	21		28	29		9	15		15	15		19	18	13	8	16	15	5	5	14	15
N	627	441		628	490		150	102		156	103		271	273	62	205	481	529	518	566	321	410

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.251. I3: Respondent is of Hispanic or Latino origin

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Yes	2	2	0.57	2	2	0.79	2	4	0.19	1	1	0.98	6	5	8	8	9	9	10	16	2	4
N	624	440		624	486		151	102		157	103		270	273	62	205	478	528	517	565	320	407

Table E.252. I4: Respondent's race

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
White/ Caucasian	90	88	0.47	86	86	0.77	94	97	0.31	95	93	0.57	91	91	91	90	93	89	86	83	92	90
Black or African American	1	1	0.18	2	2	0.9	0	1	0.46	1	1	0.59	4	4	1	3	3	5	6	6	4	6
Asian	8	10	0.42	10	10	0.75	4	0	0	4	4	0.97	3	1	0	2	1	2	3	1	0	0
Native Hawaiian or other Pacific Islander	0	0	0.09	1	0	0.53	0	0	n.a.	0	0	n.a.	0	1	0	1	0	0	0	0	1	0
American Indian or Alaska Native	1	1	0.19	2	0	0	2	5	0.19	3	1	0.21	3	2	4	4	4	3	6	3	7	4
Other	1	2	0.13	2	4	0.11	2	2	1	0	1	0.53	0	2	4	5	4	5	6	9	2	1
N	624	438		623	486		150	102		156	103		269	273	61	203	471	527	511	558	320	406

Table E.253. I5: Respondent personally performs any of the following tasks at the practice, regardless of job title. Mark all that apply.

	Primary Care Physician			NP/PA			Practice Manager or Supervisor	Care Manager or Coordinator	Receptionists	Medical Assistants	Nurses
	2016			2016			2016	2016	2016	2016	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC
Care management for high-risk patients	74	72	0.57	69	63	0.43	15	75	5	30	52
Care coordination with specialists or post-hospital discharge follow-up	75	76	0.85	63	68	0.5	22	82	17	42	56
Quality improvement (systematically using data from your practice to improve care quality)	65	58	0.14	41	31	0.15	67	54	17	42	47
Linking patients to community services (e.g., social services, Meals on Wheels)	53	57	0.33	60	67	0.28	22	74	15	43	58
None of the above	11	12	0.64	11	15	0.41	30	7	69	34	21
N	628	492		155	102		276	205	531	562	407

Table E.254. I6: Respondent's primary role at this practice site. That is, the job role in which they work the most hours in a typical week.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Primary Care Physician (MD or DO)	97	97	n.a.	99	98	n.a.	0	3	n.a.	1	0	n.a.	0	0	0	0	1	1	0	0	0	0
Nurse Practitioner (NP)	0	0		0	0		47	54		50	66		0	0	0	0	0	0	0	0	0	0
Physician Assistant (PA)	0	0		0	0		50	43		48	32		0	0	0	0	0	0	0	0	0	0
Registered Nurse (RN)	0	0		0	0		0	0		0	0		2	1	8	4	0	0	0	0	31	29
Licensed Practical Nurse (LPN) or Vocational Nurse (LVN)	0	0		0	0		0	0		0	0		1	2	0	3	1	0	3	0	52	48
Medical Assistant	0	0		0	0		0	0		0	0		1	1	9	8	2	3	83	88	3	5
Practice Supervisor or Practice Manager	1	2		0	0		0	0		0	0		85	79	8	3	4	2	2	0	1	1
Laboratory or Radiology Technician	0	0		0	0		0	0		0	0		0	0	0	0	0	0	3	0	3	0
Dietitian or Nutritionist	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0	0	0	0
Pharmacist or Pharmacy Technician	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0	0	0	0
Behavioral Health, Clinical Psychologist, or Social Worker	0	0		0	0		0	0		0	0		0	0	1	0	0	0	0	0	0	0
Physical or Respiratory Therapist	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0	0	0	0
Health Educator	0	0		0	0		2	0		0	0		0	0	0	0	0	0	0	0	0	0
Care Manager or Care Coordinator	0	0		0	0		1	1		0	0		1	2	58	53	1	0	1	2	7	11
Quality Improvement (QI) Specialist	0	0		0	0		1	0		0	0		1	0	2	0	1	0	0	0	0	0
Community Services Coordinator	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0	0	0	0
Receptionist	0	0		0	0		0	0		0	0		7	0	0	4	81	69	4	2	0	0
Other	0	1		1	2		0	0		2	1		2	15	14	25	8	24	2	8	1	6
N	616	427		623	486		149	98		154	101		249	268	51	202	452	527	477	563	288	407

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.255. 17: Respondent's professional licensing or certification. Mark all that apply.

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
MD or DO	100	100	0.32	100	100	0.31	0	0	n.a.	1	0	0.29	2	1	1	0	1	1	1	0	0	0
Nurse Practitioner (NP) or Advanced Practice Nurse (APN)	0	0	0.32	0	0	0.17	49	56	0.32	51	68	0.02	2	0	0	1	1	1	1	0	1	0
Physician Assistant (PA)	0	0	0.32	0	0	0.32	51	44	0.32	50	32	0.02	1	0	1	0	0	0	0	0	0	0
Registered Nurse (RN)	1	0	0.32	0	0	0.98	23	32	0.13	26	30	0.55	11	13	43	32	1	1	1	0	36	42
Licensed Practical Nurse (LPN) or Vocational Nurse (LVN)	0	0	0.32	0	0	0.17	1	0	0.17	1	1	0.56	4	7	7	10	1	1	4	0	61	52
Medical Assistant	0	0	0.32	0	0	0.03	0	0	n.a.	1	0	0.29	16	15	24	29	9	9	87	91	5	6
Medical Office Manager	0	0	0.29	0	0	0.14	0	0	n.a.	1	0	0.29	24	19	1	3	1	1	2	1	0	0
Laboratory or Radiology Technician	1	0	0.07	0	0	0.9	1	0	0.17	2	0	0.07	6	3	0	1	2	1	10	4	5	0
Dietitian or Nutritionist	0	0	0.32	0	0	0.17	1	0	0.06	1	1	0.62	0	0	1	1	0	0	0	0	0	0
Pharmacist or Pharmacy Technician	1	1	0.86	0	1	0.02	0	0	n.a.	0	0	n.a.	3	0	2	1	0	1	1	0	0	0
Behavioral Health or Social Worker	1	0	0.16	0	0	n.a.	0	0	n.a.	1	0	0.29	1	1	2	5	0	1	0	0	0	0
Physical or Respiratory Therapist	0	0	0.78	0	0	0.31	1	1	0.64	0	0	n.a.	0	1	0	0	0	0	0	0	0	0
Health Educator	0	0	0.65	0	0	n.a.	2	4	0.47	0	1	0.35	3	0	0	1	0	0	0	0	2	1
Clinical Psychologist	0	0	0.32	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	0	0	0	0	0	0	0	0
Other	2	1	0.32	1	1	0.75	2	6	0.05	6	1	0.03	25	24	22	11	14	16	9	11	6	3
None	0	0	n.a.	0	0	n.a.	0	0	n.a.	0	0	n.a.	37	36	15	18	73	73	5	4	0	0
N	626	441		625	487		150	104		153	101		247	263	62	203	436	520	512	563	318	408

Note: Chi-squared tests are not applicable to results with small cell counts, and in those cases we report the p-values as not applicable (n.a.).

Table E.256. I8: How long respondent has worked at the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Less than 6 months	0	1	0.26	0	0	0.47	0	0	0.01	1	0	0.71	0	1	0	1	0	2	0	2	0	2
6 months up to 1 year	1	0		2	5		4	0		5	9		0	6	3	14	3	14	3	15	3	11
More than 1 year up to 2 years	7	3		5	6		10	7		14	17		6	8	28	19	19	18	16	19	18	21
More than 2 years up to 5 years	14	14		13	14		31	20		31	27		17	17	20	26	25	24	32	26	25	25
More than 5 years up to 10 years	19	19		19	18		23	30		23	19		27	21	17	21	24	18	29	20	21	17
More than 10 years	59	62		59	56		31	43		27	27		50	47	33	18	29	24	21	17	34	25
N	625	441		623	487		150	104		154	101		268	274	62	206	479	532	514	567	318	408

Table E.257. I9: In a typical week, number of hours respondent works at the practice

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Less than 20 hours	5	5	0.73	4	4	0.55	3	6	0.14	3	6	0.04	2	4	6	2	4	3	2	2	6	6
20 to 39 hours	23	26		25	25		45	32		35	43		7	7	11	20	24	21	23	21	27	25
40 hours	13	15		14	10		20	27		37	20		21	20	51	59	56	64	49	53	45	47
More than 40 hours	59	55		57	61		32	35		26	31		71	69	33	19	16	12	27	24	22	22
N	623	441		623	487		150	104		154	101		269	272	62	203	476	529	510	560	318	401

Table E.258. I10: The percentage of time during a typical work week at the practice that the respondent spends providing direct patient care

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Less than 25%	1	2	0.05	1	1	0.77	1	0	0.44	0	0	0.21	59	69	16	7	16	16	2	2	4	1
26 to 50%	6	4		4	3		0	2		0	5		15	13	6	10	6	5	2	3	4	6
51 to 75%	26	18		19	17		10	10		15	16		14	11	27	26	13	13	10	11	15	12
76 to 100%	67	76		76	80		89	88		84	79		12	7	50	57	65	67	86	84	76	81
N	625	441		625	486		149	104		159	103		266	270	62	204	472	526	519	563	321	408

Table E.259. I11: Respondent provides predominantly, but not necessarily exclusively, primary care services

	Primary Care Physician						NP/PA						Practice Manager or Supervisor		Care Manager or Coordinator		Receptionists		Medical Assistants		Nurses	
	2013-2014			2016			2013-2014			2016			2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016	2013-2014	2016
	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	Comp	p-value	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC	CPC
Yes	99	98	0.32	99	96	0	93	85	0.07	94	87	0.07	70	68	87	81	56	55	86	83	88	88
N	623	438		623	487		150	103		159	103		259	269	59	198	443	490	494	534	312	398

b. Practice characteristics

Table E.260. D1: Who owns this practice. Mark all that apply.

	Primary Care Physician			NP/PA		
	2016			2016		
	CPC	Comp	<i>p</i> -value	CPC	Comp	<i>p</i> -value
Clinicians in the practice or group	44	51	0.14	47	50	0.74
A hospital, health system, medical school, or university	49	48	0.76	47	43	0.64
Other	7	4	0.05	8	8	0.94
N	619	487		157	102	

Table E.261. D2a: Practice participates in the Physician Quality Reporting System (PQRS)

	Primary Care Physician		NP/PA
	2016		2016
	Comp		Comp
No	10		9
Yes	67		45
Does not apply or Don't know	22		45
N	484		101

Table E.262. D2b: Practice participates in the Health Care Innovation Awards (sponsored by CMS)

	Primary Care Physician		NP/PA
	2016		2016
	Comp		Comp
No	34		18
Yes	18		11
Does not apply or Don't know	49		71
N	479		101

Table E.263. D2c: Practice participates in the Medicare Shared Savings Program (also known as the Medicare ACO program)

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	27		11	
Yes	39		25	
Does not apply or Don't know	34		64	
N	482		101	

Table E.264. D2d: Practice participates in Independence at Home

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	52		24	
Yes	4		5	
Does not apply or Don't know	43		72	
N	481		99	

Table E.265. D2e: Practice participates in Pioneer ACO

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	51		21	
Yes	5		1	
Does not apply or Don't know	44		78	
N	475		99	

Table E.266. D2f: Practice participates in the Meaningful Use / EHR Incentive

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	4		2	
Yes	91		82	
Does not apply or Don't know	5		16	
N	486		102	

Table E.267. D2g: Practice participates in Medicaid Health Home

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	45		20	
Yes	16		13	
Does not apply or Don't know	39		67	
N	477		101	

Table E.268. D2h: Practice participates in a federally-sponsored shared savings initiative

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	45		24	
Yes	5		2	
Does not apply or Don't know	50		74	
N	462		98	

Table E.269. D2i: Practice participates in a state or community based quality measures reporting program

	Primary Care Physician	NP/PA
	2016	2016
	Comp	Comp
No	33	8
Yes	29	32
Does not apply or Don't know	39	60
N	476	101

Table E.270. D2j: Practice participates in a state or regional health information exchange

	Primary Care Physician	NP/PA
	2016	2016
	Comp	Comp
No	26	12
Yes	37	25
Does not apply or Don't know	37	63
N	478	101

Table E.271. D2k: Practice participates in a purchaser-sponsored program linking payment to performance or value (such as a bonus payment from an insurer for quality)

	Primary Care Physician	NP/PA
	2016	2016
	Comp	Comp
No	24	18
Yes	38	12
Does not apply or Don't know	38	70
N	479	100

Table E.272. D2I: Practice participates in a consortium or collaborative working on quality improvement (for example, Institute for Healthcare Improvement collaborative or EHR users' group)

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
No	34		11	
Yes	21		17	
Does not apply or Don't know	45		72	
N	473		101	

Table E.273. D3: The practice currently has recognition as a 'medical home' from any of the following. Mark all that apply.

	Primary Care Physician		NP/PA	
	2016		2016	
	Comp		Comp	
National Committee for Quality Assurance (NCQA-PCMH)	38		19	
The Joint Commission (TJC)	11		11	
Accreditation Association for Ambulatory Healthcare (AAAHC-Triple A)	1		1	
Utilization Review Accreditation Commission (URAC)	0		0	
State-based Recognition Program	4		3	
Insurance Plan-based Recognition Program	16		7	
Other	4		6	
Does not have recognition as a medical home	24		13	
Don't know	25		53	
N	466		98	

Table E.274. D3: The practice currently has recognition as a medical home from any source

	Primary Care Physician	NP/PA
	2016	2016
	Comp	Comp
Yes	51	35
Does not apply or Don't know	25	53
N	466	98

Table E.275. D3: The practice currently has recognition as a medical home from more than one source

	Primary Care Physician	NP/PA
	2016	2016
	Comp	Comp
Yes	17	10
Does not apply or Don't know	25	53
N	466	98

This page has been left blank for double-sided copying.

APPENDIX F:

PATIENT SURVEY METHODS AND DATA TABLES

This page has been left blank for double-sided copying.

This appendix describes the patient survey used to assess patient experience among Medicare fee-for-service (FFS) beneficiaries. It details survey fielding, including timing, mode, incentives; sampling and weighting; survey content; analytic methods including statistical estimation and testing procedures; and data tables.

A. Fielding details

Timing. Mathematica administered four rounds of surveys to patients in CPC and comparison practices (Table F.1).

Table F.1. CPC patient survey rounds and fielding dates

Round	Fielding period	Months after CPC began
1	June through October 2013	8–12
2	July through October 2014	21–24
3	July through October 2015	33–36
4	July through October 2016	45–48

Survey mode, length, incentives, and reminders. The Clinician and Group 12-Month Consumer Assessment of Healthcare Providers and Services with Patient-Centered Medical Home supplemental items (CAHPS PCMH) version 2.0 portion of the survey takes about 12 minutes to complete; we limited additional questions to ensure that the average time to complete the survey was about 15 minutes.

We administered the patient survey by mail using the standard CAHPS fielding procedures (CAHPS 2011) with the goal of achieving a response rate of 35 percent. The recommended mail protocol for the CAHPS includes (1) setting up a toll-free number staffed by trained personnel, (2) sending a questionnaire mailing with a cover letter and postage-paid envelope, (3) sending a postcard reminder to nonrespondents 10 days after the questionnaire mailing, and (4) sending a second questionnaire with a reminder letter and a postage-paid envelope to nonrespondents three weeks after the initial mailing.

We fielded the patient survey over a 12-week period, consistent with the CAHPS fielding procedures, but modified the timing of the mailings slightly. We accelerated the timing of the first postcard reminder to 7 days rather than 10 days, and we delayed the second questionnaire mailing by two weeks to allow more time for response.⁷ We sent a second reminder postcard two weeks after the second questionnaire.

We identified the mailing addresses for the patients we surveyed from the Medicare Enrollment Database (EDB) for CPC and comparison practices, and from patient rosters provided by CPC practices. We also sent all mailing addresses through the National Change of Address database, to ensure that they were up to date.

⁷ We delayed this second mailing because our sample size was so large that it took two weeks to print and mail surveys. Therefore, for a reminder mailing sent out three weeks after the first mailing, we would have needed the mailing file of nonrespondents only one week after the first mailing, too soon to allow for sufficient time to receive completed surveys.

Sampling methods. We surveyed samples of CPC and comparison practice patients selected from three sampling frames. The two patient sampling frames for the CPC practices were (1) attributed Medicare FFS beneficiaries attributed to CPC practices using an algorithm applied to Medicare claims data, and (2) a list provided by all CPC practices of all patients seen at their practice in a 12-month period, regardless of whether they were attributed to the practice by participating payers or insurance coverage. The sampling frame for the comparison practices' patient sample was Medicare FFS beneficiaries attributed to comparison practices, using the same algorithm and Medicare claims data used for the CPC group.

The results in this report focus on the attributed Medicare FFS beneficiaries. For this sample, making reasonable assumptions about the intraclass correlation coefficient based on previous studies, we estimated that, to achieve adequate statistical precision for impact estimates on survey outcomes at the region level, we would need about 40 completed surveys from attributed Medicare FFS beneficiaries from each CPC practice, and about 14 from each set of comparison practices.

We designed our sampling procedure to support the analysis presented in Chapter 7 of this report as well as practice-level feedback and shared savings calculations that are based on a sample of all patients in CPC practices. We calculated the sample size requirements for the all-patient sample following National Committee for Quality Assurance (NCQA) recommendations on the number to survey and using an expected response rate of 35 percent (Table F.2). The sample size n_i for each CPC practice i was determined by the number of full-time equivalent clinicians (primary and specialty care clinicians, including physicians, nurse practitioners, and physician assistants) plus half the number of part-time clinicians in the practice (we considered part-time clinicians to be working half-time), as reported in the CPC practice survey. Applying these rules, we selected an average sample each round of 135,449 patients (attributed Medicare FFS and other patients) from CPC practices, which yielded approximately 41,000 completed questionnaires each round.

Table F.2. Sample size requirements—from NCQA guidelines for practice site sampling based on number of clinicians at site

Number of clinicians at site	Number sent surveys per practice ^a	Projected number of completed surveys per practice ^b
1	128	45
2-3	171	60
4-9	343	120
10-13	429	150
14-19	500	175
20-28	643	225
29 or more	686	240

^a National Committee for Quality Assurance. "Specifications for the CAHPS PCMH Survey 2012." Washington, DC: National Committee for Quality Assurance, 2011.

^b The projected number of completed surveys assumed a 35 percent sample yield. From Robert Wood Johnson Foundation, "Leveraging Existing Patient Survey Efforts: A Decision Guide," 2012.

NCQA = National Committee for Quality Assurance.

Although these rules determined the total number of all patients that we sent surveys in each CPC practice, we needed to ensure that the sample included a sufficient number of Medicare-attributed patients to receive at least 40 completed surveys per practice. Assuming a response rate of 35 percent and an ineligibility rate of 1 to 2 percent, we needed to select at least 118 Medicare FFS beneficiaries to survey from each CPC practice. We decided the number to survey as follows. First, to determine the overall sampling rate required, we divided the total number of patients sampled required by NCQA (Table F.2) by the total number of patients on the practice's patient roster.⁸ We initially aimed to allocate the sample to attributed Medicare FFS beneficiaries and all other patients proportionally within each CPC practice. We then compared the resulting number of sampled Medicare FFS beneficiaries with the minimum number of 118. If the number of attributed Medicare FFS beneficiaries to be sampled (based on the overall sampling rate and the proportion of attributed Medicare FFS beneficiaries in the practice) exceeded 118, we selected that larger number. If the number of attributed Medicare FFS beneficiaries indicated by the sampling rate was less than or equal to 118 for a given practice, we selected 118 of them. We drew the remaining number of patients needed to reach the total required NCQA sample size for each practice from the non-Medicare attributed patients in the roster. For example, suppose we had a three-clinician practice and one-third of the patients were attributed Medicare FFS beneficiaries. The NCQA guidelines suggest that we sample 171 patients from this practice. One-third of the sample should be Medicare FFS patients, which is 57 patients. However, 57 is less than 118, so in this case, we sample 118 Medicare FFS beneficiaries and only 53 of the other patients. If, however, three-quarters of the patients of the same three-clinician practice were attributed Medicare FFS beneficiaries, then three-quarters of the sampled patients should be Medicare FFS beneficiaries, which is 128. Because 128 is more than 118, we make no change to the number of Medicare FFS beneficiaries sampled and select the remaining 43 patients from the other patients.

We sent surveys to an average of 135,449 CPC patients per round. Among these patients, 60,063 were attributed Medicare FFS beneficiaries and 73,786 were other patients. For the comparison group, we sent surveys to an average of 20,623 attributed Medicare FFS beneficiaries per round.

In each CPC practice, to ensure that the attributed Medicare FFS beneficiaries we sampled to survey were representative of all attributed Medicare FFS patients, we first sorted all attributed Medicare FFS beneficiaries by whether they were high-risk (using an indicator of whether the patient was in the top Hierarchical Condition Category [HCC] quartile). Within the high- vs. non-high-risk categories, we further sorted the patients by race/ethnicity, age, sex, dual-eligibility status, and zip code to ensure that the resulting patient sample was representative of all patients within the CPC practice. We then selected patients to survey within each practice using a sequential random selection method. This approach implicitly stratified the sample by high-versus non-high risk and the other listed characteristics (Chromy 1979).

In the comparison practices, we selected beneficiaries within matched sets, and the number selected was determined according to the number of CPC practices in the matched set. If a matched set had two CPC practices, the comparison beneficiary sample size was twice that of a

⁸ Each March, CPC practices submitted a list of the patients seen at their practice location in the past 12 months.

matched set with one CPC practice. Our goal was to obtain a beneficiary sample from the comparison practices that was similar to the sampled patients in the matched CPC practices with respect to risk level, as measured by HCC score. We therefore explicitly stratified the comparison patients in each matched set into four HCC score quartiles. Within each HCC score quartile, we sorted the comparison beneficiaries by race/ethnicity, age, sex, dual-eligibility status, and zip code, to ensure that the resulting patient sample is representative of all patients within the comparison practices in the matched set. We then sampled using the sequential random sampling method. The sample sizes within matched sets did not support explicitly stratifying on any patient characteristics other than HCC score to ensure that the comparison patient sample looked like the corresponding CPC patient sample. Instead, we relied on the fact that the comparison group selection process ensured that beneficiaries' characteristics were similar for the CPC and comparison practices as a whole.

Weighting. The final attributed Medicare FFS beneficiary weights used in the impact analysis for CPC practices accounted for the probability of selection and differential nonresponse, so that the respondents best represented the CPC practices' attributed Medicare FFS beneficiary population. Without adjustment, nonresponse would have led to bias and hence inaccurate estimates to the extent that those who did not respond differed in important respects from those who did respond. To address this issue, we computed response rates for different subpopulations of beneficiaries, looked for variation among these rates, and compared the characteristics of respondents and nonrespondents using claims data. To assess the potential for nonresponse bias and its likely direction, we also looked at the characteristics of the nonrespondents by the reason for nonresponse (including no contact, refusal, and incapacitation). Using a response propensity model, we calculated and applied inverse probability weights of survey response to the sampling weights. We estimated the inverse probability weights using logistic regression models, and age, HCC quartile, race, dual eligibility status, gender, and region to predict response. We employed the same process for the comparison attributed beneficiary weights. We adjusted the nonresponse-adjusted comparison beneficiary survey weights such that the sum of the weights for each matched set matched the sum of the weights for the matching initiative practice(s) by HCC group.

Completed surveys. Upon receiving data files from the subcontractor, we reviewed the data to confirm completion status. We considered a survey complete if it had answers for at least 14 of 27 key items from the CAHPS-PCMH portion of the survey following CAHPS guidelines. If a survey had responses to fewer than 14 of the key items, or if the respondent did not answer the eligibility screener question indicating whether he or she visited the practice in the past 12 months, we counted the survey as a partial complete and excluded it from the analysis.

Sample sizes and response rates. Each year, we sent surveys to about 60,000 of roughly 300,000 Medicare FFS beneficiaries attributed to CPC practices and 20,000 of about 600,000 Medicare FFS beneficiaries attributed to comparison practices (Table F.3). We surveyed Medicare FFS beneficiaries in all practices that had ever participated in CPC and were still open, regardless of whether the practice was still participating in CPC at the time of the survey. Each round, we excluded practices that had closed more than six months before the survey round; therefore, we excluded only seven (or 1 percent of) CPC practices from our sample. We obtained similar response rates for beneficiaries in CPC and comparison practices: between 44 percent and 48 percent depending on the survey round and group.

Table F.3. Attributed Medicare FFS beneficiary survey sample and response rates for each of the four rounds of patient surveys

Round (year)	CPC practices				Comparison practices			
	1 (2013)	2 (2014)	3 (2015)	4 (2016)	1 (2013)	2 (2014)	3 (2015)	4 (2016)
Number of attributed Medicare FFS beneficiaries								
In sampling frame	308,450	321,515	339,282	338,676	605,083	593,768	640,296	654,197
Sent surveys	59,285	59,258	59,514	62,194	20,901	20,532	20,437	19,865
Completed surveys	25,946	26,362	25,686	25,318	9,273	8,915	9,922	8,088
In analysis sample	25,843	26,356	25,548	25,026	8,950	8,865	8,439	8,088
Response rate (percentage, unweighted) ^a	46	48	46	44	46	47	45	44
Number of practices								
Total	497	496	496	495	908	878	872	811
With completed surveys	497	496	496	495	819	794	790	736
With completed surveys in our sample	495 ^b	496 ^c	493 ^d	490 ^e	818 ^b	792 ^c	787 ^d	736

^a The response rate is the number of complete eligible respondents divided by the eligible sample. The eligible sample includes a proportion of cases with unknown eligibility that we estimate are eligible following the guidelines of the American Association for Public Opinion Research (AAPOR 2016).

^b In 2013, our sample included only 495 of the 497 total CPC practices. We removed one practice and its comparison matched set because the calculated practice weight (a combination of matching weights and nonresponse weights) was a large outlier and would have given data from Medicare FFS beneficiaries in the practice undue influence on the results. Also, one practice did not have any completed surveys in its comparison matched set. Our analysis sample for comparison practices excludes one practice that was matched only to one of the two dropped CPC practices (a comparison practice could be matched to more than one CPC practice and thus remain in the analysis despite being matched to a dropped CPC practice).

^c In 2014, there were 496 practices that received the CPC patient survey: 2 of the 497 total CPC practices in 2013 closed in the summer/fall of 2013, and one practice split into two practices in 2014. Our final sample includes only 792 comparison practices because we dropped 2 comparison practices from the analysis when we removed the matched sets for the two CPC practices that closed more than six months before the 2014 survey.

^d Between the 2014 and 2015 survey rounds, 2 CPC practices closed and 2 CPC practices split into 2 new practices, resulting in 496 CPC practices. The analysis sample has only 493 CPC practices, because 3 practices had no completed surveys in its comparison matched set. Our final sample includes only 787 comparison practices; we dropped 3 comparison practices from the analysis because their matched CPC practices had closed more than six months before the survey and therefore were not sampled.

^e Between the time the patient rosters were collected for the 2015 survey round and the 2016 survey rounds, 3 CPC practices closed and 2 CPC practices split into 2 new practices, resulting in 495 CPC practices. The analysis sample has only 490 CPC practices, because 5 practices had no completed surveys in their comparison matched set.

B. Survey content

The CPC patient survey contained between 87 and 93 questions depending on the survey round. Sixty-one questions came from the CAHPS PCMH version 2.0. The remaining questions came from a variety of sources that we added to assess areas of care specific to CPC (such as, transitional care) and to study the characteristics of the respondents.

To evaluate the effect of CPC on patient experience in Chapter 7, we use information gathered from 71 questions. We use 24 of the 71 questions to identify eligible respondents and to give respondents an opportunity to skip questions based on whether they met certain criteria—such as visiting an emergency department (ED) in the past year. The remaining 47 questions

asked respondents about their experiences with care (such as, if they visited the ED in the past year, whether their provider followed up with them within one week of the ED visit). Table F.4 lists the questions we used to study Medicare FFS beneficiaries' experiences with care for this annual report and each question's source.

Table F.4. CPC patient survey questions used in Chapter 7 and sources

R4 (2016) Question Number	CPC question text	Source	Modified from original source
Q01	Our records show that in the last 12 months you got care from a primary care provider from the location listed below (you may know this practice by another name). Is that right? If No, go to #66.	CG-CAHPS v2.0 12-mo PCMH	Yes
Q02	What is the last name of the primary care provider (doctor, nurse practitioner, or physician assistant) you have seen most often at this office in the past 12 months?	MPR	n.a.
Q03	Is this the provider you usually see if you need a check-up, want advice about a health problem, or get sick or hurt?	CG-CAHPS v2.0 12-mo PCMH	Yes
Q04	How long have you been going to this provider?	CG-CAHPS v2.0 12-mo PCMH	No
Q05	In the last 12 months, how many times did you visit this provider to get care for yourself? If None, go to #66.	CG-CAHPS v2.0 12-mo PCMH	No
Q06	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? If No, go to #9.	CG-CAHPS v2.0 12-mo PCMH	No
Q07	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q08	In the last 12 months, how many days did you usually have to wait for an appointment when you needed care right away?	CG-CAHPS v2.0 12-mo PCMH	No
Q09	In the last 12 months, did you make any appointments for a check-up or routine care with this provider? If No, go to #11.	CG-CAHPS v2.0 12-mo PCMH	No
Q10	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q11	Did this provider's office give you information about what to do if you needed care during evenings, weekends, or holidays?	CG-CAHPS v2.0 12-mo PCMH	No
Q12	In the last 12 months, did you need care for yourself during evenings, weekends, or holidays? If No, go to #14.	CG-CAHPS v2.0 12-mo PCMH	No
Q13	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q14	In the last 12 months, did you phone this provider's office with a medical question during regular office hours? If No, go to #16.	CG-CAHPS v2.0 12-mo PCMH	No
Q15	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q16	In the last 12 months, did you phone this provider's office with a medical question after regular office hours? If No, go to #18.	CG-CAHPS v2.0 12-mo PCMH	No
Q17	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q18	In the last 12 months, did you email this provider's office with a medical question? If No, to go #20.	CAHPS supplemental	No
Q19	In the last 12 months, when you emailed this provider's office, how often did you get an answer to your medical question as soon as you needed?	CAHPS supplemental	No
Q20	Does this provider's office use a web portal or website that allows you to email the practice, review your medical information (for example, laboratory or other test results), request a prescription renewal, or make appointments? If No or Don't know, go to #22.	MPR	n.a.
Q21	In the last 12 months, how often did you use this web portal or website to do any of the following: email the practice, review your medical information (for example, laboratory or other test results), request a prescription renewal, or make appointments?	MPR	n.a.
Q22	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?	CG-CAHPS v2.0 12-mo PCMH	No

Table F.4 (continued)

R4 (2016) Question Number	CPC question text	Source	Modified from original source
Q23	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q24	In the last 12 months, how often did this provider explain things in a way that was easy to understand?	CG-CAHPS v2.0 12-mo PCMH	No
Q25	In the last 12 months, how often did this provider listen carefully to you?	CG-CAHPS v2.0 12-mo PCMH	No
Q26	In the last 12 months, did you talk with this provider about any health questions or concerns? If No, go to #28.	CG-CAHPS v2.0 12-mo PCMH	No
Q27	In the last 12 months, how often did this provider give you easy to understand information about these health questions or concerns?	CG-CAHPS v2.0 12-mo PCMH	No
Q28	In the last 12 months, how often did this provider seem to know the important information about your medical history?	CG-CAHPS v2.0 12-mo PCMH	No
Q29	In the last 12 months, how often did this provider show respect for what you had to say?	CG-CAHPS v2.0 12-mo PCMH	No
Q30	In the last 12 months, how often did this provider spend enough time with you?	CG-CAHPS v2.0 12-mo PCMH	No
Q31	In the last 12 months, did this provider order a blood test, x-ray, or other test for you? If No, go to #33.	CG-CAHPS v2.0 12-mo PCMH	No
Q32	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q33	In the last 12 months, did you and this provider talk about starting or stopping a prescription medicine? If No, go to #37.	CG-CAHPS v2.0 12-mo PCMH	No
Q34	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q35	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q36	When you talked about starting or stopping a prescription medicine, did this provider ask you what you thought was best for you?	CG-CAHPS v2.0 12-mo PCMH	No
Q37	Using any number from 0 to 10, where 0 is the worst provider possible and 10 is the best provider possible, what number would you use to rate this provider?	CG-CAHPS v2.0 12-mo PCMH	No
Q38	In the last 12 months, how often did you feel this provider really cared about you as a person?	CAHPS supplemental	Yes
Q39	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? If No, got to #41.	CG-CAHPS v2.0 12-mo PCMH	No
Q40	In the last 12 months, how often did the provider named in Question 2 seem informed and up-to-date about the care you got from specialists?	CG-CAHPS v2.0 12-mo PCMH	No
Q41	In the last 12 months, did this provider or anyone at this provider's office help you deal with confusing or conflicting advice from other primary care providers, specialists, or other medical professionals (such as pharmacists, therapists, or nurses) that you saw?	MPR	n.a.
Q42	In the last 12 months, did anyone in this provider's office talk with you about specific goals for your health?	CG-CAHPS v2.0 12-mo PCMH	No
Q43	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q44	In the last 12 months, did you take any prescription medicine? If No, go to #46.	CG-CAHPS v2.0 12-mo PCMH	No
Q45	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q46	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q47	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?	CG-CAHPS v2.0 12-mo PCMH	No
Q48	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?	CG-CAHPS v2.0 12-mo PCMH	No

Table F.4 (continued)

R4 (2016) Question Number	CPC question text	Source	Modified from original source
Q49	How often is this provider able to treat most of your health conditions and problems?	MPR	n.a.
Q50	In the last 12 months, when you have visited this provider with a new problem or symptom, how often did this provider immediately refer you to a specialist instead of trying to treat the problem first?	MPR	n.a.
Q51	In the last 12 months, how often were clerks and receptionists at this provider's office as helpful as you thought they should be?	CG-CAHPS v2.0 12-mo PCMH	No
Q52	In the last 12 months, how often did clerks and receptionists at this provider's office treat you with courtesy and respect?	CG-CAHPS v2.0 12-mo PCMH	No
Q53	Compared to one year ago, how would you rate the care you receive at this practice?	MPR	n.a.
Q54	Does your health insurance or health plan require you to obtain a referral from your primary care provider to see a specialist? If No or I do not have insurance, go to #56.	MPR	n.a.
Q55	In the last 12 months, how often was it easy to get a referral from the provider named in Question 2 to a specialist that you needed to see?	MPR / MCBS	Yes
Q56	In the last 12 months, did you make any appointments to see a specialist? If No, go to #62.	CAHPS supplemental	No
Q57	In the last 12 months, how often was it easy to get appointments with specialists?	CAHPS supplemental/RAND	CAHPS: No RAND: Yes
Q58	In the last 12 months, did you and the provider named in Question 2 talk about the cost of seeing a specialist?	CAHPS supplemental/RAND	Yes
Q59	In the last 12 months, were you ever worried or concerned about the cost of seeing a specialist?	CAHPS supplemental/RAND	CAHPS: No RAND: Yes
Q60	How many specialists have you seen in the last 12 months? Your best estimate is fine. If None, go to #62.	CAHPS supplemental/RAND	Yes
Q61	In the last 12 months, how often did the specialist you saw most often seem to know the important information about your medical history?	RAND	Yes
Q62	In the last 12 months, have you been a patient in a hospital overnight or longer? If No, go to #64.	RAND	Yes
R1_57	Within the two weeks after your most recent hospital stay, did you see a doctor, nurse practitioner, or physician assistant in the provider's office named in Question 1?	RAND	Yes
R1_58	Did that provider seem informed and up-to-date about this hospital stay?	RAND	Yes
Q63	Within 3 days after your most recent hospital stay, did someone from the provider's office named in Question 1 contact you to follow up on this hospital stay?	MPR / RAND	Yes
Q64	In the last 12 months, have you gone to an emergency room or emergency department for care? If No, go to #66.	MPR	n.a.
Q65	Within one week after your most recent emergency room or emergency department visit, did someone from the provider's office named in Question 1 contact you to follow up on this visit?	MPR	n.a.
Q69	In the last 12 months, did you visit this provider to get health care for a chronic condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause. If No, go to #72.	CAHPS Supplemental	Yes
Q70	Over the last 12 months, when you received care from this provider for your chronic condition(s), how often were you asked for your ideas or your goals when making a treatment plan? If No treatment plan made, go to #72.	PACIC	Yes
Q71	Over the last 12 months, when you received care from this provider for your chronic condition(s), how often were you given a copy of your treatment plan?	PACIC	Yes

CAHPS = Consumer Assessment of Healthcare Providers and Systems; CG-CAHPS = CAHPS Clinician and Group Survey; MPR = Mathematica Policy Research, PACIC = Patient Assessment of Chronic Illness Care, MCBS = Medicare Current Beneficiary Survey.

The survey also included questions on patient demographics (taken from CAHPS version 2.0 and the Medicare Segmentation Screening Tool)⁹, mental health (from the Patient Health Questionnaire-9), patient activation (from the Health Tracking Household survey), and activities of daily living and instrumental activities of daily living (from the Veterans Rand 12-item health survey).

C. Analysis methods

Statistical estimation and testing

Analytic comparisons. For each survey question measuring patient experience and five CAHPS composite measures created using a subset of the questions, we compared ratings between CPC and comparison practices in 2013 or the first year the question was asked, and again in 2016, to observe where patient experience differed between the two groups early in the initiative and near the end of the initiative. Because we were not able to collect data before CPC began, differences in any of the years may reflect preexisting differences between CPC and comparison practices. It is possible that CPC did not have an effect on patient experience during the first 8 to 12 months, the time of the first survey in 2013. However, in case it had, we did not calculate difference-in-differences estimates.

Estimation. For each of the 47 questions measuring patient experience, we calculated both the proportion of Medicare FFS beneficiaries who gave the *best* (most favorable) responses (response scales varied from 2 points [yes/no] to 11 points [0 to 10 global rating scale]) and *mean* responses on a standardized 0 to 1 scale. Examples of these responses are (1) the provider always explained things to the patient in a way that was easy to understand; (2) in the last 12 months, between visits, yes, the patient received reminders about tests, treatment, or appointments from the provider's office; and (3) the patient got an appointment for care needed right away that same day.

Best and mean responses. We analyzed both the best and mean responses because there are trade-offs to both methods of defining patient experience. Reporting the proportion of beneficiaries that gave the *best* responses allows us to draw comparisons between CPC and comparison practices and over time in a way that is easily understood and interpreted. However, the analysis—which focuses only on shifting the proportion answering the best response category—ignores any shifts in the other response categories (for example, a shift in the proportion of responses from the third to second best response option). An analysis using *mean* responses better reflects the range of beneficiary responses by averaging responses across all response options. However, this measure, too, is imperfect. Calculating mean responses uses the survey's ordinal scale, in which options are ordered from best to worst response, but counts the movement between each option as equivalent. For example, if there are five response options, it treats the movement from the fifth to the fourth option as equivalent to a movement from the second to first option. It does not take into account objective differences between the meaning of different response options.

⁹ We used two items from the Medicare Segmentation Screening Tool originally developed by Williams and Heller (2007) and modified by Williams and Frost (2014) for a broader audience.

Because the results are comparable, and other studies of the effects of primary care interventions on patient experience focus on the best responses, our main analysis is on best responses (Heyworth et al. 2014; Jaén et al. 2010; Kern et al. 2013; Maeng et al. 2013).

Regression adjustment. We first calculated the likelihood (predicted probability) that beneficiaries responded to a question with the best response using logistic regressions controlling for CPC region, baseline (pre-CPC) beneficiary and practice characteristics, and self-reported education level at the time of the survey. Baseline practice characteristics included practice size, medical home recognition, whether the practice had one or more meaningful electronic health record (EHR) users, whether the practice is multispecialty, and whether the practice was independent or owned by a medical group or health system; baseline characteristics of the practices' county or census tract included whether the practice is in a medically underserved area, Medicare Advantage penetration rate, percentage of the county that is urban, and median household income; and baseline beneficiary characteristics included age, gender, race, reason for Medicare eligibility, dual eligibility status, HCC score, number of annualized physician visits, number of annualized ED visits, and number of annualized inpatient hospitalizations.

For all regressions, we weighted estimates using beneficiary-level nonresponse weights (to make the sample similar to all attributed Medicare FFS beneficiaries) and practice-level matching weights (to ensure that CPC and comparison samples were similar). We clustered standard errors by practice for all CPC beneficiaries and by matched set for comparison beneficiaries to account for clustering of responses within a practice and respondents answering in more than one round.

Missing data due to nonresponse or skips. We calculated predicted probabilities for each of the 47 questions among beneficiaries with responses to that individual question. Twenty-four of these questions were preceded by questions that first asked the respondent whether the next question applied to him or her. Fewer beneficiaries responded to these questions because of skip patterns in the survey itself. In those cases, we report responses among those that should have answered the question. For example, all beneficiaries were asked whether they phoned the provider's office with a medical question during regular office hours. If the respondent selected yes, he or she then answered a follow-up question asking how often he or she received an answer to his or her medical question that same day. In 2016, 56% of respondents in both groups of practices answered that they did not phone their provider's office with a medical question during regular office hours. These beneficiaries were therefore not asked the follow-up question and not included in the analysis for that question. Among the other questions—the ones that were not preceded by a screener question—most questions were answered by 96% or more of the respondents to the survey.

Sensitivity tests using mean response. To test the sensitivity of our findings, we examined CPC-comparison differences in regression-adjusted mean responses. Because the number of response options varies among questions, we first standardized responses to a 0 to 1 scale, where 0 is the worst response and 1 is the best response. To calculate mean responses for the composite measures, we created beneficiary-level composite measures by averaging the non-missing standardized responses across the questions in the composite measure. We then ran OLS regressions using beneficiary-level composite measures and controlling for the same practice and

beneficiary characteristics used for the top-box responses to obtain CPC-wide composite measures.

Creating and assessing composite measures. In addition to individual questions, we created six composite measures. We constructed these measures using 19 of the 47 patient experience questions based on the CAHPS version 2.0 guidelines (see Chapter 7, Table 7.1 for a description of the questions included in each of the six composite measures). To calculate the composite measures for the CPC and comparison groups, we first created composite measures for each survey respondent (beneficiary-level composite measures) by averaging nonmissing binary indicators for whether the beneficiary's response was the best option across each question in the composite. (That is, if the composite contained four questions and the respondent answered all four and gave the best response for three of them, the patient's score for that composite measure was 0.75.) We then used ordinary least squares (OLS) regressions controlling for the same characteristics as the regressions for individual questions to create aggregate composite measures.

We assessed how well questions within each composite measure produced consistent results by calculating the internal consistency reliability of each composite. We calculated this value for the five composite measures formed from the responses to multiple questions (the composite measure for the remaining composite, patients' rating of the provider, contains only one question). Four of the five composite measures had adequate reliability with McDonald's omega values between 0.76 and 0.96. The other composite—providers' knowledge of the care patient received from other providers—had less reliability (omega = 0.56) (Nunnally and Bernstein 1994; Lance 2006). Because its two component questions do not fit well together in the composite, we report the questions separately.

Subgroups. We also looked at beneficiaries' ratings of CPC and comparison practices by three key subgroups of beneficiaries:

- Whether the respondent is attributed to a practice that is part of a health care system
- The size of the respondent's practice (measured by the number of primary care clinicians in the practice)
- The respondent's relative health status (measured by whether the respondent's 2012 HCC score is above or below the median for all respondents across all survey rounds)

We used logistic and OLS regressions to test for subgroup effects. We first estimated a regression on each outcome with the CPC and comparison respondents combined, with a binary indicator for whether the respondent or the respondent's practice was in the subgroup of interest added to the other regression adjusters. We examined whether the coefficient on the subgroup indicator for the CPC and comparison respondents combined was statistically significant, to determine whether there were different responses by subgroup. We also estimated regressions on each outcome with three explanatory variables (in addition to the other regression adjusters): a binary indicator for treatment (CPC group) status, a binary indicator for whether the respondent or the respondent's practice is in the subgroup, and a term interacting treatment and subgroup status. We examined whether the coefficient on the treatment (CPC group)-subgroup interactor

was statistically significant to determine whether CPC had a differential effect for members of the subgroup.

Power. Using two-tailed tests at the 10 percent significance level, the analysis had 80 percent power to detect small effects of one to three percentage points over time and between CPC and comparison practices for the composite measures, and for most individual questions. Exceptions were for questions that applied to a small proportion of respondents, such as respondents who had phoned the provider's office after hours, or respondents who had emailed the provider's office with medical questions, where we could detect differences of 6 to 11 percentage points.

Statistical and substantial importance. We considered responses between beneficiaries in CPC and comparison practices to be statistically different and *substantially* important if the difference met two criteria: (1) the *p*-value was less than or equal to 0.10 and (2) the difference between the two groups was larger than five percentage points.

Multiple comparisons. Because multiple comparisons can lead to false positives, we do not draw inferences about effects from tests of each hypothesis separately, but rather from the findings across the set of questions and composites, relying most heavily on the summary composites.

Software. All analyses were conducted using SAS version 9.4 and Stata version 14.2, and statistical tests used survey commands to account for the survey sampling design.

D. Data tables

This section presents five data tables. Each table shows data for the four rounds of the CPC patient survey for respondents in CPC and comparison practices separately.

- Table F.5 presents the predicted percentage of Medicare FFS beneficiaries giving the best response to questions in the five CAHPS composite measures.
- Table F.6 presents the predicted percentage of Medicare FFS beneficiaries giving the best response to patient experience questions not in the composite measures.
- Tables F.7a – F.7c present the predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices giving the best responses by (1) whether their practice is in a health care system, (2) whether their 2012 HCC score was below or above the sample median and (3) the size of their practice.
- Table F.8 presents the predicted standardized mean responses for composite measures and the questions in the composite measures.
- Table F.9 presents the standardized mean response to patient experience questions not in the composite measures.

Table F.5. Predicted percentage of Medicare FFS beneficiaries giving the best response to questions in the five CAHPS composites, 2013-2016 (percentages unless otherwise indicated)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016 (pp)	2013	2014	2015	2016	2013 to 2016 (pp)	2013 (pp)	2016 (pp)
Composite measures												
Timely appointments, care, and information (five questions) (N = 24,922 [CPC]; 8,054 [Comp])	53	53	53	53	0	54	53	53	54	0	-2**	-2*
Providers' communication with patients (six questions) (N = 25,007 [CPC]; 8,082 [Comp])	80	80	80	81	1**	81	81	81	82	1	-1**	-1**
Providers support patients in taking care of their own health (two questions) (N = 24,693 [CPC]; 7,970 [Comp])	46	48	52	53	6***	48	46	52	53	5***	-2**	0
Providers discuss medication decisions with patients (three questions) (N = 13,426 [CPC]; 4,419 [Comp])	60	62	61	61	1**	63	61	63	63	0	-3***	-1
Patients' overall ratings of the provider (one question) (N = 24,779 [CPC]; 8,014 [Comp])	76	76	77	78	3***	78	77	77	80	2*	-2**	-1
Individual questions												
<i>Timely appointments, care, and information</i>												
Q7: Patient always got appointment as soon as needed when s/he phoned provider's office to get an appointment for care needed right away (N = 12,759 [CPC]; 4,074 [Comp])	67	67	65	65	-2***	69	67	66	66	-3	-2	-1
Q10: Patient always got appointment as soon as needed when s/he made appointment for check-up or routine care (N = 21,665 [CPC]; 7,007 [Comp])	72	72	71	70	-2***	74	72	71	72	-2	-2**	-2*
Q15: Patient always received an answer to his/her medical question that same day when phoning provider's office during regular office hours (N = 10,992 [CPC]; 3,553 [Comp])	56	57	56	56	0	59	58	58	59	0	-3**	-3**
Q17: Patient always received an answer to his/her medical question as soon as needed when phoning provider's office after regular office hours (N = 1,401 [CPC]; 436 [Comp])	53	55	54	54	1	52	53	58	59	7*	1	-5
Q23: Patient with an appointment always saw provider within 15 minutes of appointment time (N = 24,559 [CPC]; 7,935 [Comp])	29	30	31	32	3***	29	30	32	34	4***	0	-2
<i>Providers' communication with patients</i>												
Q24: Provider always explained things to patient in a way that was easy to understand (N = 24,570 [CPC]; 7,947 [Comp])	82	82	82	82	1	82	82	83	84	1	-1	-2**
Q25: Provider always listened carefully to patient (N = 24,562 [CPC]; 7,943 [Comp])	83	83	83	83	0	84	83	84	84	0	-1	-1
Q27: When patient talked with provider about health questions and concerns, provider always gave the patient	80	78	79	80	0	81	79	80	81	0	-2**	-1*

Table F.5 (continued)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016 (pp)	2013	2014	2015	2016	2013 to 2016 (pp)	2013 (pp)	2016 (pp)
easy-to-understand information (N = 20,910 [CPC]; 6,821 [Comp])												
Q28: Provider always seemed to know important information about patient's medical history (N = 24,528 [CPC]; 7,931 [Comp])	73	74	75	75	1***	75	74	75	76	1	-2*	-1
Q29: Provider always showed respect for what patient had to say (N = 24,836 [CPC]; 8,022 [Comp])	87	87	87	88	1**	88	88	89	89	1*	0	-1
Q30: Provider always spent enough time with patient (N = 24,831 [CPC]; 8,017 [Comp])	76	77	78	78	2***	77	79	78	80	3***	-1	-2**
<i>Providers support patients in taking care of their own health</i>												
Q42: Someone in provider's office discussed with patient during the last 12 months specific goals for his/her health (N = 24,466 [CPC]; 7,897 [Comp])	59	60	66	67	7***	62	58	66	66	5***	-2**	0
Q43: Someone in provider's office asked the patient during the last 12 months whether there are things that make it hard for patient to take care of his/her health (N = 24,264 [CPC]; 7,843 [Comp])	33	35	37	38	6***	35	34	38	39	4***	-2**	-1
<i>Providers discuss medication decisions with patients</i>												
Q34: If patient talked about starting/stopping a prescription medicine, provider talked a lot about the reasons patient might want to take the medicine (N = 13,341 [CPC]; 4,386 [Comp])	61	62	62	63	1*	64	63	65	64	1	-2**	-2
Q35: If patient talked about starting/stopping a prescription medicine, provider talked a lot about the reasons patient might not want to take a medicine (N = 13,169 [CPC]; 4,335 [Comp])	43	44	44	43	0	46	43	44	45	-1	-2*	-2
Q36: If patient talked about starting/stopping a prescription medicine, provider asked what patient thought was best (N = 13,085 [CPC]; 4,309 [Comp])	76	79	78	79	2***	79	78	80	80	1	-2**	-1
<i>Patients' overall ratings of the provider</i>												
Q37: Patient rating of provider as best provider possible (9–10, out of a maximum of 10) (N = 24,779 [CPC]; 8,014 [Comp])	76	76	77	78	3***	78	77	77	80	2*	-2**	-1

Source: CPC patient survey administered June through October 2013, July through October 2014, July through October 2015, and July through October 2016.

Notes: Composite measures for the five domains of care were created using 17 survey questions following the scoring instructions from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Clinician and Group survey, version 2.0. To calculate predicted probabilities for the composite measures, we first created beneficiary-level composite measures by averaging nonmissing binary indicators for whether the beneficiary's response was the best option across each question in the composite. We then ran ordinary least squares regressions on beneficiary-level composite measures to create CPC-wide composite measures.

Table F.5 (continued)

Light green (red) shading indicates that the finding is statistically significant at the 0.10 level and favorable (unfavorable). Dark green shading with bolded text indicates a favorable finding that is both statistically and substantially significant; dark red shading with bolded text indicates an unfavorable finding that is both statistically and substantially significant.

All regression models controlled for baseline (pre-CPC) practice characteristics (practice size, medical home recognition, whether the practice had one or more meaningful EHR users, whether the practice is multispecialty, and whether the practice was independent or owned by a medical group or health system), and baseline characteristics of the practices' county or census tract (whether in a medically underserved area, Medicare Advantage penetration rate, percentage urban, and median household income) and beneficiary characteristics (age, gender, race, reason for Medicare eligibility, dual-eligibility status, Hierarchical Condition Category score, number of annualized physician visits, number of annualized emergency room visits, number of annualized inpatient hospitalizations). Regressions also controlled for education level at the time of the survey and CPC region. We weighted estimates using beneficiary-level nonresponse and practice-level matching weights. We clustered standard errors by practice for Medicare FFS beneficiaries in CPC practices and by matched set for Medicare FFS beneficiaries in comparison practices.

At the end of each question label, the table reports the number of respondents for 2016 separately for CPC and comparison practices.

*/**/*** The finding is statistically significant at the 0.10/0.05/0.01 level.

FFS = fee-for-service; pp = percentage point; Comp = comparison practices.

Table F.6. Predicted percentage of Medicare FFS beneficiaries giving the best response to patient experience questions not in the composite measures, 2013-2016 (percentages unless otherwise indicated)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016 (pp)	2013	2014	2015	2016	2013 to 2016 (pp)	2013 or first year asked (pp)	2016 (pp)
Timely access to care and information												
Q8: When patient phoned provider's office for care needed right away, patient usually got an appointment on same day (N = 12,461 [CPC]; 3,983 [Comp])	45	43	45	42	-3***	48	43	43	42	-6***	-3**	-1
Q11: Provider's office provided patient with information about what to do if care was needed during evenings, weekends, or holidays (N = 24,072 [CPC]; 7,776 [Comp])	78	79	79	79	1***	79	80	78	79	0	-2**	0
Q13: If patient needed care during evenings, weekends, or holidays in the last 12 months, patient was always able to get needed care from provider's office (N = 4,002 [CPC]; 1,247 [Comp])	33	36	33	32	-1	35	33	30	31	-4	-3	0
Q19: When patient emailed provider's office, patient always received an answer to his/her medical question as soon as needed (N = 1,824 [CPC]; 585 [Comp])	67	71	70	69	2	68	71	76	75	6	-1	-6**
Providers' communication with patients												
Q21: If provider's office used a web portal or website, patient used it often (more than three times) to email the practice, review medical information, request prescription renewal, or make appointments (N = 13,702 [CPC]; 3,943 [Comp])	n.a.	13	14	15	0	n.a.	14	16	17	n.a.	-1	-2*
Q22: In the last 12 months, between visits, patient received reminders about tests, treatment, or appointments from provider's office (N = 24,389 [CPC]; 7,895 [Comp])	69	70	71	71	3***	70	69	70	71	1	-1	0
Q32: If provider ordered a blood test, x-ray, or other test, provider's office always followed up to provide patient with test results (N = 22,479 [CPC]; 7,307 [Comp])	76	76	76	75	-1*	78	77	75	77	-1	-2**	-2**
Q38: Patient always felt that provider really cared about patient as a person (N = 24,800 [CPC]; 8,018 [Comp])	77	78	78	79	2***	79	78	79	81	2	-2**	-2**
Q51: Clerks and receptionists at provider's office were always as helpful as patient thought they should be (N = 24,567 [CPC]; 7,962 [Comp])	66	67	69	71	5***	68	69	71	74	6***	-2	-3***
Q52: Clerks and receptionists at provider's office always treated patient with courtesy and respect (N = 24,584 [CPC]; 7,966 [Comp])	82	83	84	86	4***	84	84	85	86	2**	-2***	0

Table F.6 (continued)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016 (pp)	2013	2014	2015	2016	2013 to 2016 (pp)	2013 or first year asked (pp)	2016 (pp)
Providers' attention to patients' behavioral health needs												
Q46: Practice staff asked patient during the last 12 months whether there was a period of time when the patient felt sad, empty, or depressed (N = 24,554 [CPC]; 7,934 [Comp])	39	44	46	53	13***	40	42	44	49	9***	-1	3**
Q47: Provider spoke with patient during the last 12 months about things in life that worry the patient or cause the patient stress (N = 24,544 [CPC]; 7,929 [Comp])	42	45	44	47	5***	43	43	44	46	3**	-1	1
Q48: Practice staff spoke with patient during the last 12 months about a personal, family, mental, emotional, or substance abuse problem (N = 24,542 [CPC]; 7,944 [Comp])	30	30	29	31	1***	30	29	30	30	0	0	1
Coordination of care with specialists and other providers												
Q55: If patient required a referral from provider to see a specialist, patient always easily got referral (N = 6,749 [CPC]; 2,265 [Comp])	77	77	75	75	-3***	80	75	75	75	-5***	-2	0
Q57: If patient made an appointment to see a specialist, patient always easily got appointments with specialist (N = 17,304 [CPC]; 5,530 [Comp])	56	56	56	54	-2***	57	56	57	54	-3**	-1	0
Q58: If patient made an appointment to see a specialist, provider talked with patient during the last 12 months about the cost of seeing a specialist (N = 17,423 [CPC]; 5,580 [Comp])	8	10	8	8	-1	9	10	8	7	-2**	0	1
Q59: If patient made an appointment to see a specialist, patient was worried or concerned during the last 12 months about the cost of seeing a specialist (N = 17,419 [CPC]; 5,564 [Comp])	22	20	19	18	-3***	22	21	20	18	-5***	-1	1
Q61: When patient saw a specialist, specialist always knew important information about patient's medical history (N = 17,031 [CPC]; 5,439 [Comp])	58	57	57	57	-1*	59	59	58	59	0	-2	-2**
Q40: If patient visited a specialist, provider always seemed informed and up-to-date about the care patient received from specialists (N = 18,016 [CPC]; 5,819 [Comp])	59	58	60	60	2**	61	60	60	63	2	-2*	-2**
Q45: If patient takes prescription medicines, practice staff spoke with patient at each visit during the last 12 months about all prescription medications the patient was taking (N = 23,553 [CPC]; 7,646 [Comp])	87	88	88	87	0	87	87	88	87	0	0	0
Q41: If patient received conflicting or confusing advice from other providers, provider helped patient manage the information (N = 7,090 [CPC]; 2,296 [Comp])	n.a.	n.a.	73	74	n.a.	n.a.	n.a.	74	74	n.a.	-2	0

Table F.6 (continued)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016 (pp)	2013	2014	2015	2016	2013 to 2016 (pp)	2013 or first year asked (pp)	2016 (pp)
Transitional care and provider follow-up after hospital stays and ED visits												
(2013 only) If patient stayed in a hospital overnight or longer in the last 12 months, patient saw doctor, nurse practitioner, or physician assistant in provider's office within two weeks after most recent hospital stay (N = 5,514 [CPC]; 1,926 [Comp])	70	n.a.	n.a.	n.a.	n.a.	65	n.a.	n.a.	n.a.	n.a.	5***	n.a.
(2013 only) When patient saw provider within two weeks of most recent hospital stay, provider seemed informed and up to date about patient's hospital stay (N = 3,718 [CPC]; 1,230 [Comp])	95	n.a.	n.a.	n.a.	n.a.	96	n.a.	n.a.	n.a.	n.a.	-1	n.a.
Q63: If patient stayed in a hospital overnight or longer in the last 12 months, patient was contacted by provider's office within three days of most recent hospital stay (N = 4,645 [CPC]; 1,572 [Comp])	n.a.	56	58	60	n.a.	n.a.	52	53	50	n.a.	3*	11***
Q65: If patient visited the emergency room or emergency department for care in the last 12 months, patient was contacted by provider's office within one week of most recent visit (N = 6,796 [CPC]; 2,242 [Comp])	n.a.	53	56	59	n.a.	n.a.	48	49	51	n.a.	5***	8***
Patient engagement in caring for chronic conditions												
Q70: If patient received care from provider for a chronic condition, patient was always asked for her/his ideas or goals when making a treatment plan (N = 10,313 [CPC]; 3,278 [Comp])	n.a.	37	37	36	n.a.	n.a.	36	38	36	n.a.	1	-1
Q71: When patient received care from provider for a chronic condition, patient was always given a copy of her/his treatment plan (N = 10,194 [CPC]; 3,251 [Comp])	n.a.	46	46	47	n.a.	n.a.	42	44	46	n.a.	4**	1
Comprehensiveness of care												
Q49: Provider is always able to treat most of patient's health conditions and problems (N = 24,451 [CPC]; 7,930 [Comp])	n.a.	n.a.	n.a.	51	n.a.	n.a.	n.a.	n.a.	53	n.a.	n.a.	-2**
Q50: When patient visited provider with a new problem or symptom in the last 12 months, provider always immediately referred patient to a specialist instead of trying to treat the problem first (N = 15,410 [CPC]; 4,843 [Comp])	n.a.	n.a.	n.a.	28	n.a.	n.a.	n.a.	n.a.	28	n.a.	n.a.	0
Patients' overall rating of care received from the provider												
Q53: Compared with one year ago, patient feels that the care received by the provider was much better (N = 23,646 [CPC]; 7,620 [Comp])	n.a.	18	17	17	n.a.	n.a.	17	18	17	n.a.	1	0

Table F.6 (continued)

Source: CPC patient survey administered June through October 2013, July through October 2014, July through October 2015, and July through October 2016.

Notes: All regression models controlled for baseline (pre-CPC) practice characteristics (practice size, medical home recognition, whether the practice had one or more meaningful EHR users, whether the practice is multispecialty, and whether the practice was independent or owned by a medical group or health system), and baseline characteristics of the practices' county or census tract (whether in a medically underserved area, Medicare Advantage penetration rate, percentage urban, and median household income) and beneficiary characteristics (age, gender, race, reason for Medicare eligibility, dual-eligibility status, Hierarchical Condition Category score, number of annualized physician visits, number of annualized emergency room visits, number of annualized inpatient hospitalizations). Regressions also controlled for education level at the time of the survey and CPC region. We weighted estimates using beneficiary-level nonresponse and practice-level matching weights. We clustered standard errors by practice for Medicare FFS beneficiaries in CPC practices and by matched set for Medicare FFS beneficiaries in comparison practices.

Light green (red) shading indicates that the finding is statistically significant at the 0.10 level and favorable (unfavorable). Dark green shading with bolded text indicates a favorable finding that is both statistically and substantially significant; dark red shading with bolded text indicates an unfavorable finding that is both statistically and substantially significant.

At the end of each question label, the table reports the number of respondents for 2016 separately for CPC and comparison practices.

*/**/*** The finding is statistically significant at the 0.10/0.05/0.01 level.

n.a. = not available because the question was not asked in the survey round; FFS = fee-for-service; pp = percentage point; Comp = comparison practices; ED = emergency department.

Table F.7a. Predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices combined giving the best response by whether their practice is in a health care system, 2016

	Medicare FFS beneficiaries in CPC and comparison practices			Medicare FFS beneficiaries in CPC practices		Medicare FFS beneficiaries in comparison practices		<i>p</i> -value on the differential effect between beneficiaries in CPC and comparison practices (subgroup*treatment status)
	Not in a system	In a system	<i>p</i> -value	Not in a system	In a system	Not in a system	In a system	
Timely appointments, care, and information	55	52	0.001	54	51	56	52	0.329
Providers' communication with patients	82	81	0.401	81	80	82	82	0.923
Providers support patients in taking care of their own health	52	53	0.543	52	53	52	53	0.109
Providers discuss medication decisions with patients	62	62	0.794	62	61	63	63	0.934
Patients' overall ratings of the provider	80	78	0.046	79	77	80	78	0.804
Maximum number of respondents	21,295	11,598		16,249	8,559	5,046	3,039	

Note: The maximum number of respondents is the number of Medicare FFS beneficiaries in our sample attributed to practices that are in a system and not in a system. We determined whether beneficiaries were in a system using 2016 data from SK&A, a health care vendor.

FFS = fee-for-service.

Table F.7b. Predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices combined giving the best response by whether their 2012 HCC score was below or above the sample median, 2016

	Medicare FFS beneficiaries in CPC and comparison practices			Medicare FFS beneficiaries in CPC practices		Medicare FFS beneficiaries in comparison practices		p-value on the differential effect between beneficiaries in CPC and comparison practices (subgroup*treatment status)
	Below median	Above median	p-value	Below median	Above median	Below median	Above median	
Timely appointments, care, and information	53	54	0.447	53	53	54	55	0.754
Providers' communication with patients	82	81	0.247	81	80	82	82	0.662
Providers support patients in taking care of their own health	51	54	0.000	51	54	52	54	0.158
Providers discuss medication decisions with patients	61	63	0.038	60	62	62	63	0.360
Patients' overall ratings of the provider	79	79	0.587	78	78	80	79	0.504
Maximum number of respondents	16,242	16,872		12,341	12,685	3,901	4,187	

Note: The maximum number of respondents is the number of Medicare FFS patients in our sample with HCC scores below and above the sample-wide median.

FFS = fee-for-service; HCC = hierarchical condition category.

Table F.7c. Predicted percentage of Medicare FFS beneficiaries attributed to CPC and comparison practices combined giving the best response by the size of their practice, 2016

	Medicare FFS beneficiaries in CPC and comparison practices				
	1 clinician	2 or 3 clinicians	4 or 5 clinicians	6 or more clinicians	p-value (difference between 1 clinician and 6+ clinicians)
Timely appointments, care, and information	59	55	52	53	0.001
Providers' communication with patients	82	82	80	82	0.994
Providers support patients in taking care of their own health	55	53	51	53	0.490
Providers discuss medication decisions with patients	63	65	60	62	0.326
Patients' overall ratings of the provider	80	79	77	79	0.539
Maximum number of respondents	4,866	9,853	7,965	10,430	

	Medicare FFS beneficiaries in CPC practices				Medicare FFS beneficiaries in comparison patients				p-value on the differential effect between beneficiaries in CPC and comparison practices
	1 clinician	2 or 3 clinicians	4 or 5 clinicians	6 or more clinicians	1 clinician	2 or 3 clinicians	4 or 5 clinicians	6 or more clinicians	
Timely appointments, care, and information	57	54	53	51	61	55	52	54	0.673
Providers' communication with patients	81	81	80	81	82	83	81	82	0.888
Providers support patients in taking care of their own health	54	53	51	53	55	54	51	53	0.557
Providers discuss medication decisions with patients	60	62	60	62	65	67	59	62	0.077
Patients' overall ratings of the provider	79	79	77	78	81	80	77	80	0.897
Maximum number of respondents	3,773	7,557	6,246	7,450	1,093	2,296	1,719	2,980	

Note: The maximum number of respondents is the number of Medicare FFS beneficiaries in our sample attributed to practices of each size. FFS = fee-for-service.

Table F.8. Predicted standardized mean responses (0 to 1) for composite measures and the questions in the composite measures, 2013-2016

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016	2013	2014	2015	2016	2013 to 2016	2013	2016
Composite measures (standardized means, 0 to 1)												
Timely appointments, care, and information (five questions)	0.78	0.78	0.78	0.78	0.00	0.78	0.78	0.78	0.79	0.00	-0.01	-0.01
Providers' communication with patients (six questions)	0.92	0.92	0.92	0.92	0.00	0.92	0.92	0.92	0.93	0.00	-0.00*	-0.01**
Providers support patients in taking care of their own health (two questions)	0.46	0.48	0.52	0.53	0.06***	0.48	0.46	0.52	0.53	0.05***	-0.02**	0.00
Providers discuss medication decisions with patients (three questions)	0.78	0.78	0.78	0.78	0.01**	0.79	0.78	0.79	0.79	0.00	-0.02***	-0.01
Patients' overall ratings of the provider (one question)	0.91	0.91	0.91	0.91	0.01***	0.91	0.91	0.91	0.92	0.01	-0.01*	-0.01*
Individual questions (standardized means, 0 to 1)												
<i>Timely appointments, care, and information</i>												
Q7: Patient always got appointment as soon as needed when s/he phoned provider's office to get an appointment for care needed right away	0.86	0.86	0.85	0.85	-0.01***	0.87	0.86	0.85	0.85	-0.01*	-0.01	0.00
Q10: Patient always got appointment as soon as needed when s/he made appointment for check-up or routine care	0.89	0.89	0.88	0.88	-0.01***	0.90	0.89	0.88	0.89	-0.01	-0.01*	-0.01*
Q15: Patient always received an answer to his/her medical question that same day when phoning provider's office during regular office hours	0.81	0.81	0.81	0.80	-0.01	0.82	0.82	0.82	0.82	0.00	-0.01**	-0.02**
Q17: Patient always received an answer to his/her medical question as soon as needed when phoning provider's office after regular office hours	0.76	0.76	0.75	0.76	0.00	0.75	0.75	0.76	0.78	0.03	0.00	-0.03
Q23: Patient with an appointment always saw provider within 15 minutes of appointment time	0.64	0.65	0.66	0.67	0.02***	0.64	0.65	0.66	0.67	0.03**	0.00	0.00
<i>Providers' communication with patients</i>												
Q24: Provider always explained things to patient in a way that was easy to understand	0.93	0.93	0.93	0.93	0.00	0.93	0.93	0.93	0.94	0.01	0.00	-0.01**
Q25: Provider always listened carefully to patient	0.93	0.93	0.93	0.93	0.00	0.93	0.93	0.93	0.94	0.00	0.00	-0.01
Q27: When patient talked with provider about health questions and concerns, provider always gave the patient easy-to-understand information	0.92	0.91	0.91	0.92	0.00	0.92	0.92	0.92	0.92	0.00	0.00	-0.01**
Q28: Provider always seemed to know important information about patient's medical history	0.89	0.90	0.90	0.90	0.01**	0.90	0.90	0.90	0.90	0.00	-0.01*	0.00
Q29: Provider always showed respect for what patient had to say	0.95	0.95	0.94	0.95	0.00	0.95	0.95	0.95	0.95	0.01*	0.00	-0.01**
Q30: Provider always spent enough time with patient	0.90	0.91	0.91	0.91	0.01***	0.91	0.91	0.91	0.92	0.01**	0.00	-0.01*

Table F.8 (continued)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016	2013	2014	2015	2016	2013 to 2016	2013	2016
<i>Providers support patients in taking care of their own health</i>												
Q42: Someone in provider's office discussed with patient during the last 12 months specific goals for his/her health	0.59	0.60	0.66	0.67	0.07***	0.62	0.58	0.66	0.66	0.05***	-0.02**	0.00
Q43: Someone in provider's office asked the patient during the last 12 months whether there are things that make it hard for patient to take care of his/her health	0.33	0.35	0.37	0.38	0.06***	0.35	0.34	0.38	0.39	0.04***	-0.02**	-0.01
<i>Providers discuss medication decisions with patients</i>												
Q34: If patient talked about starting/stopping a prescription medicine, provider talked a lot about the reasons patient might want to take the medicine	0.84	0.85	0.85	0.85	0.00	0.85	0.85	0.86	0.86	0.00	-0.01**	-0.01*
Q35: If patient talked about starting/stopping a prescription medicine, provider talked a lot about the reasons patient might not want to take a medicine	0.72	0.72	0.71	0.72	0.00	0.73	0.71	0.72	0.72	-0.01	-0.01	0.00
Q36: If patient talked about starting/stopping a prescription medicine, provider asked what patient thought was best	0.76	0.79	0.78	0.79	0.02***	0.79	0.78	0.80	0.80	0.01	-0.02**	-0.01
<i>Patients' overall ratings of the provider</i>												
Q37: Patient rating of provider as best provider possible (9–10, out of a maximum of 10)	0.91	0.91	0.91	0.91	0.01***	0.91	0.91	0.91	0.92	0.01	-0.01*	-0.01*

Source: CPC patient survey administered June through October 2013, July through October 2014, July through October 2015, and July through October 2016.

Notes: Composite measures for the five domains of care were created using 17 survey questions following the scoring instructions from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Clinician and Group survey, version 2.0. To calculate the six composite measures, we first calculated beneficiary-level composite measures by averaging the nonmissing standardized responses across each question in the composite. We then ran ordinary least squares regressions on beneficiary-level composite measures to create CPC-wide composite measures.

Light green (red) shading indicates that the finding is statistically significant at the 0.10 level and favorable (unfavorable). Dark green shading with bolded text indicates a favorable finding that is both statistically and substantially significant; dark red shading with bolded text indicates an unfavorable finding that is both statistically and substantially significant.

All regression models controlled for baseline (pre-CPC) practice characteristics (practice size, medical home recognition, whether the practice had one or more meaningful EHR users, whether the practice is multispecialty, and whether the practice was independent or owned by a medical group or health system), and baseline characteristics of the practices' county or census tract (whether in a medically underserved area, Medicare Advantage penetration rate, percentage urban, and median household income) and beneficiary characteristics (age, gender, race, reason for Medicare eligibility, dual-eligibility status, Hierarchical Condition Category score, number of annualized physician visits, number of annualized emergency room visits, number of annualized inpatient hospitalizations). Regressions also controlled for education level at the time of the survey and CPC region. We weighted estimates using beneficiary-level nonresponse and practice-level matching weights. We clustered standard errors by practice for all beneficiaries in CPC practices and by matched set for beneficiaries in comparison practices.

See Table F.5 for the number of respondents to each question in 2016.

*/**/*** The finding is statistically significant at the 0.10/0.05/0.01 level.

FFS = fee-for-service.

Table F.9. Predicted standardized mean response (0 to 1) to questions not in the composite measures, 2013-2016

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016	2013	2014	2015	2016	2013 to 2016	2013 or first year asked	2016
Timely access to care and information												
Q8: When patient phoned provider's office for care needed right away, patient usually got an appointment on same day	0.78	0.76	0.77	0.76	-0.02***	0.79	0.76	0.76	0.76	-0.03***	-0.01	0.00
Q11: Provider's office provided patient with information about what to do if care was needed during evenings, weekends, or holidays	0.78	0.79	0.79	0.79	0.01***	0.79	0.80	0.78	0.79	0.00	-0.02**	0.00
Q13: If patient needed care during evenings, weekends, or holidays in the last 12 months, patient was always able to get needed care from provider's office	0.49	0.50	0.47	0.47	-0.02	0.52	0.47	0.45	0.45	-0.06**	-0.03	0.01
Q19: When patient emailed provider's office, patient always received an answer to his/her medical question as soon as needed	0.83	0.85	0.85	0.85	0.02	0.83	0.83	0.88	0.88	0.05*	0.01	-0.03*
Providers' communication with patients												
Q21: If provider's office used a web portal or website, patient used it often (more than three times) to email the practice, review medical information, request prescription renewal, or make appointments	n.a.	0.30	0.32	0.33	n.a.	n.a.	0.31	0.34	0.37	n.a.	-0.01	-0.03**
Q22: In the last 12 months, between visits, patient received reminders about tests, treatment, or appointments from provider's office	0.69	0.70	0.71	0.71	0.03***	0.70	0.69	0.70	0.71	0.01	-0.01	0.00
Q32: If provider ordered a blood test, x-ray, or other test, provider's office always followed up to provide patient with test results	0.88	0.88	0.88	0.87	0.00	0.89	0.88	0.87	0.88	-0.01	-0.01**	-0.01
Q38: Patient always felt that provider really cared about patient as a person	0.90	0.90	0.90	0.91	0.01**	0.91	0.91	0.91	0.92	0.01**	-0.01*	-0.01***
Q51: Clerks and receptionists at provider's office were always as helpful as patient thought they should be	0.87	0.87	0.87	0.88	0.02***	0.87	0.88	0.88	0.89	0.02***	-0.01**	-0.01**
Q52: Clerks and receptionists at provider's office always treated patient with courtesy and respect	0.93	0.94	0.94	0.94	0.01***	0.94	0.94	0.94	0.94	0.01	-0.01***	0.00
Providers' attention to patients' behavioral health needs												
Q46: Practice staff asked patient during the last 12 months whether there was a period of time when the patient felt sad, empty, or depressed	0.39	0.44	0.46	0.53	0.13***	0.40	0.42	0.45	0.49	0.09***	-0.01	0.03**
Q47: Provider spoke with patient during the last 12 months about things in life that worry the patient or cause the patient stress	0.42	0.45	0.44	0.47	0.05***	0.43	0.43	0.44	0.46	0.03**	-0.01	0.01

Table F.8 (continued)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016	2013	2014	2015	2016	2013 to 2016	2013 or first year asked	2016
Q48: Practice staff spoke with patient during the last 12 months about a personal, family, mental, emotional, or substance abuse problem	0.30	0.30	0.29	0.31	0.01***	0.30	0.29	0.30	0.30	0.00	0.00	0.01
Coordination of care with specialists and other providers												
Q55: If patient required a referral from provider to see a specialist, patient always easily got referral	0.89	0.89	0.88	0.88	-0.02***	0.90	0.88	0.86	0.87	-0.04***	-0.01	0.01
Q57: If patient made an appointment to see a specialist, patient always easily got appointments with specialist	0.82	0.82	0.81	0.81	-0.02***	0.83	0.82	0.82	0.80	-0.02***	0.00	0.00
Q58: If patient made an appointment to see a specialist, provider talked with patient during the last 12 months about the cost of seeing a specialist	0.08	0.09	0.08	0.08	-0.01	0.08	0.10	0.08	0.07	-0.02**	0.00	0.01
Q59: If patient made an appointment to see a specialist, patient was worried or concerned during the last 12 months about the cost of seeing a specialist	0.22	0.20	0.19	0.18	-0.03***	0.22	0.21	0.19	0.18	-0.04***	-0.01	0.01
Q61: When patient saw a specialist, specialist always knew important information about patient's medical history	0.81	0.81	0.81	0.81	0.00	0.82	0.82	0.82	0.82	-0.01	-0.01*	-0.01
Q40: If patient visited a specialist, provider always seemed informed and up-to-date about the care patient received from specialists	0.81	0.80	0.81	0.81	0.00	0.81	0.81	0.81	0.82	0.01	-0.01	-0.01*
Q45: If patient takes prescription medicines, practice staff spoke with patient at each visit during the last 12 months about all prescription medications the patient was taking	0.87	0.88	0.88	0.87	0.00	0.87	0.87	0.88	0.87	0.00	0.00	0.00
Q41: If patient received conflicting or confusing advice from other providers, provider helped patient manage the information	n.a.	n.a.	0.73	0.74	n.a.	n.a.	n.a.	0.74	0.74	n.a.	-0.02	0.00
Transitional care and provider follow-up after hospital stays and ED visits												
(2013 only) If patient stayed in a hospital overnight or longer in the last 12 months, patient saw doctor, nurse practitioner, or physician assistant in provider's office within two weeks after most recent hospital stay	0.30	n.a.	n.a.	n.a.	n.a.	0.35	n.a.	n.a.	n.a.	n.a.	-0.05***	n.a.
(2013 only) When patient saw provider within two weeks of most recent hospital stay, provider seemed informed and up to date about patient's hospital stay	0.05	n.a.	n.a.	n.a.	n.a.	0.04	n.a.	n.a.	n.a.	n.a.	0.01	n.a.
Q63: If patient stayed in a hospital overnight or longer in the last 12 months, patient was contacted by provider's office within three days of most recent hospital stay	n.a.	0.56	0.58	0.60	n.a.	n.a.	0.52	0.53	0.50	n.a.	0.03*	0.11***
Q65: If patient visited the emergency room or emergency department for care in the last 12 months, patient was contacted by provider's office within one week of most recent visit	n.a.	0.53	0.56	0.59	n.a.	n.a.	0.48	0.49	0.51	n.a.	0.05***	0.08***

Table F.8 (continued)

	Medicare FFS beneficiaries in CPC practices					Medicare FFS beneficiaries in comparison practices					CPC-comparison difference	
	2013	2014	2015	2016	2013 to 2016	2013	2014	2015	2016	2013 to 2016	2013 or first year asked	2016
Patient engagement in caring for chronic conditions												
Q70: If patient received care from provider for a chronic condition, patient was always asked for her/his ideas or goals when making a treatment plan	n.a.	0.63	0.63	0.63	n.a.	n.a.	0.63	0.65	0.63	n.a.	0.00	0.00
Q71: When patient received care from provider for a chronic condition, patient was always given a copy of her/his treatment plan	n.a.	0.63	0.64	0.64	n.a.	n.a.	0.60	0.62	0.63	n.a.	0.03**	0.01
Comprehensiveness of care												
Q49: Provider is always able to treat most of patient's health conditions and problems	n.a.	n.a.	n.a.	0.81	n.a.	n.a.	n.a.	n.a.	0.82	n.a.	n.a.	-0.01
Q50: When patient visited provider with a new problem or symptom in the last 12 months, provider always immediately referred patient to a specialist instead of trying to treat the problem first	n.a.	n.a.	n.a.	0.47	n.a.	n.a.	n.a.	n.a.	0.48	n.a.	n.a.	0.00
Patients' overall rating of care received from the provider												
Q53: Compared with one year ago, patient feels that the care received by the provider was much better	n.a.	0.61	0.60	0.60	n.a.	n.a.	0.60	0.61	0.60	n.a.	0.00	0.00

Source: CPC patient survey administered June through October 2013, July through October 2014, July through October 2015, and July through October 2016.

Notes: All regression models controlled for baseline (pre-CPC) practice characteristics (practice size, medical home recognition, whether the practice had one or more meaningful EHR users, whether the practice is multispecialty, and whether the practice was independent or owned by a medical group or health system), and baseline characteristics of the practices' county or census tract (whether in a medically underserved area, Medicare Advantage penetration rate, percentage urban, and median household income) and beneficiary characteristics (age, gender, race, reason for Medicare eligibility, dual-eligibility status, Hierarchical Condition Category score, number of annualized physician visits, number of annualized emergency room visits, number of annualized inpatient hospitalizations). Regressions also controlled for education level at the time of the survey and CPC region. We weighted estimates using patient-level nonresponse and practice-level matching weights. We clustered standard errors by practice for all beneficiaries in CPC practices and by matched set for beneficiaries in comparison practices.

Light green (red) shading indicates that the finding is statistically significant at the 0.10 level and favorable (unfavorable). Dark green shading with bolded text indicates a favorable finding that is both statistically and substantially significant; dark red shading with bolded text indicates an unfavorable finding that is both statistically and substantially significant.

See Table F.6 for the number of respondents to each question in 2016.

*/**/** The finding is statistically significant at the 0.10/0.05/0.01 level.

n.a. = not available because the question was not asked in the survey round; FFS = fee-for-service; ED = emergency department.

APPENDIX G:

**IMPACTS OF CPC ON MEDICARE EXPENDITURES,
SERVICE USE, AND QUALITY OF CARE, BY REGION**

This page has been left blank for double-sided copying.

This appendix reports region-specific effects on Medicare expenditures, service use, and quality of care. Our statistical tests led us to reject the hypothesis that the impacts of CPC on expenditures were equal across regions in Year 1 (October 2012 to September 2013). However, we could not reject the same hypothesis for Year 2 (October 2013 to September 2014), Year 3 (October 2014 to September 2015), and Year 4 (October 2015 to December 2016). In this appendix, for Medicare expenditures, service utilization, and claims-based quality-of-care outcome measures, we draw our inferences about impacts based on whether cumulative estimates over the four-year period were statistically significant. For claims-based quality-of-care *process* measures, we focus on the statistical significance and direction of impact estimates on the two composite measures for diabetes and the number and pattern of statistically significant yearly estimates across all the quality-of-care process measures in a region to conclude whether estimates are likely to represent a true impact. However, Tables G.1 through G.14 report all results regardless of whether they are statistically significant.

To interpret the results, note that for service use and expenditure measures, a negative difference-in-differences (DD) estimate (also referred to as a “relative reduction”) is considered favorable, as it represents lower growth in expenditures or service use over time for CPC versus comparison beneficiaries; conversely, a positive DD estimate (also referred to as a “relative increase”) is considered unfavorable. Most of the claims-based quality measures capture whether beneficiaries received recommended tests; therefore, negative DD estimates are generally unfavorable. However, for four of the quality measures—(1) none of the three tests performed for patients with diabetes, (2) admissions for ambulatory care sensitive conditions (ACSCs), (3) likelihood of 30-day readmission, and (4) likelihood of revisiting an emergency department (ED)—negative estimates are considered favorable, and positive estimates are considered unfavorable.

A. Arkansas

CPC did not favorably impact total Medicare expenditures in Arkansas but did have favorable effects on ED revisits over the full initiative and on hospitalizations in later years. Expenditures for and use of some services (especially for primary care visits) grew somewhat more slowly for CPC patients than for comparison patients, but these relative reductions were offset by relative increases in other services (observation stays and expenditures for hospice and home health services), resulting in almost no change in Medicare expenditures without fees (Table G.1). However, net Medicare expenditures including fees increased by \$12 for CPC patients relative to comparison patients, though the difference was not statistically significant ($p = 0.35$). Hospitalizations grew at a significantly slower rate for CPC beneficiaries than for comparison beneficiaries in Years 3 and 4, suggesting potentially favorable long-run effects—even though the cumulative effect was only 2 percent ($p = 0.20$). Finally, although there were few effects on continuity-of-care or quality-of-care process measures, there was a statistically significant favorable effect of 6 percent ($p = 0.04$) on ED revisits for CPC patients relative to comparison patients (Table G.2).

B. Colorado

CPC did not appreciably affect total Medicare expenditures (with or without fees) in Colorado, nor was there a clear or consistent pattern in the findings for service use or quality of care. CPC had a favorable effect of -\$8 per beneficiary per month (PBPM) (6 percent, $p = 0.03$)

on outpatient expenditures and a -\$2 (8 percent, $p = 0.04$) effect on durable medical equipment (DME) expenditures over the course of the initiative, but there were few other changes in expenditures or use of other types of services (Table G.3). Therefore, the estimated effect on Medicare expenditures without fees was -\$9 (1 percent) and not statistically significant ($p = 0.66$), and the estimated effect on expenditures with fees was \$6 ($p = 0.76$). For claims-based quality-of-care process and outcome measures, there were mixed findings with few statistically significant estimates. The only statistically significant cumulative effect among the quality-of-care process measures was an unfavorable 3.2 percentage point ($p = 0.10$) effect on HbA1c testing among high-risk patients with diabetes (Table G.4). Although there was a favorable 1 percentage point ($p = 0.07$) effect on 30-day readmissions among all patients, there was an unfavorable 1.6 percentage point ($p = 0.01$) effect on ED visits among high-risk patients only.

C. New Jersey

CPC had few sizable or statistically significant effects on Medicare expenditures or on key service use outcomes over the course of the initiative in New Jersey. Although there was significantly slower growth in Medicare expenditures without fees during the first two years for CPC relative to comparison beneficiaries, these estimates became unfavorable and no longer statistically significant in Years 3 and 4 (Table G.5). As a result, the cumulative estimate for expenditures without fees was -\$9 and not statistically significant ($p = 0.53$) and the cumulative estimate for expenditures with fees was \$5 ($p = 0.74$). Favorable effects on service use included 2 percent less growth in specialist visits ($p = 0.02$) and a 6 percent less growth in office-based primary care visits ($p = 0.02$) for CPC beneficiaries relative to their comparison group counterparts. Although there were no effects on the continuity-of-care or quality-of-care outcome measures, there were several unfavorable effects (of about 1 to 4 percentage points) on the quality-of-care process measures for diabetes; these effects were mainly driven by improvements in the comparison group over time (Table G.6).

D. New York: Capital District–Hudson Valley region

In New York, CPC had favorable effects on hospitalizations and key service use outcomes but few effects on claims-based quality measures. Medicare expenditures grew more slowly for CPC patients relative to comparison patients, resulting in favorable -\$25 PBPM or 3 percent (but not quite statistically significant, $p = 0.13$) estimates for Medicare expenditures without fees and a -\$10 or 1 percent ($p = 0.56$) effect on Medicare expenditures with fees (Table G.7). These estimates were driven by a \$22 PBPM (6 percent, $p = 0.02$) relative decline in Medicare expenditures for inpatient services, as well as relative reductions of \$1 (4 percent, $p = 0.07$) and \$5 (14 percent, $p < 0.01$) PBPM for office-based primary care visits and home health services, respectively. Consistent with the expenditure results, there was slower growth in service use for CPC beneficiaries relative to their comparison group counterparts, including a 5 percent relative reduction in hospitalizations ($p = 0.01$), a 2 percent relative reduction in total ED visits ($p = 0.10$), and a 5 percent relative reduction in primary care visits ($p = 0.01$). Although there were few improvements in claims-based quality-of-care process measures, there was a statistically significant relative decline in ACSC admissions of 4 patients per 1,000 (5 percent, $p = 0.09$), for all patients over the course of the initiative (Table G.8).

E. Ohio/Kentucky: Cincinnati-Dayton region

The pattern of results in Ohio/Kentucky differed from that of all regions combined, with *increases* in Medicare expenditures and service use for the CPC group relative to the comparison group, no improvements in quality of care, and deterioration in continuity-of-care measures. For CPC relative to comparison beneficiaries, estimates imply that Medicare expenditures without fees increased by \$23 (3 percent, $p = 0.18$) and Medicare expenditures with fees increased by \$39 (5 percent, $p = 0.03$; Table G.9). However, the unfavorable estimates for Medicare expenditures began in Year 1, before the intervention was likely to have a true effect, and the yearly estimates declined over time, so these results should be interpreted cautiously. The increases in Medicare expenditures were driven by estimated increases in inpatient expenditures \$16 ($p = 0.14$), physician services (\$10, $p = 0.01$), and home health services (\$4, $p = 0.02$) for CPC relative to comparison beneficiaries. Although there was a promising 3 percent relative reduction in outpatient ED visits for CPC relative to comparison beneficiaries ($p = 0.09$), there was no corresponding favorable effect on ED revisits. There were no favorable effects on any of the quality-of-care measures; unfavorable statistically significant, 2 to 5 percentage point effects on the continuity-of-care measures; and an unfavorable 7 percent effect ($p = 0.07$) on ACSCs for high-risk patients (Table G.10).

F. Oklahoma: Greater Tulsa region

Although Oklahoma had favorable effects on expenditures and service use early in the initiative, these effects became less pronounced over time. Cumulative estimates over the course of the initiative showed less growth in Medicare expenditures without fees (-\$19, or 2 percent, $p = 0.06$) for CPC patients relative to comparison patients, but the -\$5 estimate for expenditures with fees was not statistically significant ($p = 0.65$; Table G.11). The effect on Medicare expenditures without fees was driven by an especially large effect in Year 1 only, the opposite of what we would expect to see if the effect were driven by the implementation of the intervention. Consistent with the effects on expenditures, in the first year, there was a 6 percent relative decline in hospitalizations ($p < 0.01$) and a 5 percent decline in ED visits ($p < 0.01$) that did not continue in the later intervention years. There was not a consistent pattern of effects on the quality-of-care process measures. Finally, for CPC versus comparison beneficiaries, continuity of care declined, but there was a favorable 11 percent reduction in the likelihood of an ED revisit ($p < 0.01$; Table G.12).

G. Oregon

Although CPC did not appreciably affect total Medicare expenditures in Oregon, there were some favorable effects on service use and on claims-based measures of quality of care. Based on the cumulative estimates, Medicare expenditures without fees increased by \$11 less (1 percent, $p = 0.27$) for CPC beneficiaries relative to comparison beneficiaries, but increased by \$4 more (or 1 percent, $p = 0.68$) after taking into account care management fees (Table G.13). The only expenditure category in which CPC had a statistically significant effect was hospice services, which showed an increase of \$5 PBPM (or 22 percent, $p < 0.01$); there were also offsetting 3 to 5 percent relative reductions in expenditures for inpatient, skilled nursing facility, specialist visit, and outpatient services. Consistent with the expenditure patterns, there was a 4 percent relative reduction in total ED visits ($p = 0.07$), a 5 percent relative reduction in outpatient ED visits ($p = 0.08$), and a 3 percent relative reduction in hospitalizations ($p = 0.14$). CPC appeared to improve

quality of care in Oregon, with statistically significant improvements of 3 to 4 percentage points for the CPC group relative to the comparison group in several quality-of-care process measures for diabetes, and a 7 percent reduction in ED revisits ($p = 0.02$; Table G.14), consistent with the favorable effects on ED visits. However, CPC had no significant effects on continuity of care.

Table G.1. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Arkansas

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$513	\$535	-	-	-	-	\$1,254	\$1,267	-	-	-	-
Year 1	\$649	\$676	-\$4	\$14	-1%	0.747	\$1,308	\$1,356	-\$35	\$43	-3%	0.407
Year 2	\$704	\$721	\$6	\$14	1%	0.689	\$1,358	\$1,369	\$2	\$38	0%	0.966
Year 3	\$764	\$789	-\$3	\$16	0%	0.869	\$1,416	\$1,449	-\$21	\$50	-1%	0.678
Year 4	\$802	\$827	-\$3	\$18	0%	0.888	\$1,434	\$1,478	-\$31	\$51	-2%	0.548
Years 1–4 combined	\$781	\$806	-\$2	\$13	0%	0.891	\$1,403	\$1,437	-\$21	\$40	-1%	0.604
Test whether impacts for Years 1–4 are jointly significant	F = 0.24	p-value = 0.915					F = 0.347	p-value = 0.846				
With CPC care management fees												
Baseline	\$512	\$535	-	-	-	-	\$1,254	\$1,267	-	-	-	-
Year 1	\$667	\$675	\$14	\$14	2%	0.29	\$1,335	\$1,356	-\$9	\$43	-1%	0.833
Year 2	\$721	\$721	\$22	\$14	3%	0.107	\$1,383	\$1,369	\$27	\$38	2%	0.484
Year 3	\$776	\$789	\$10	\$16	1%	0.559	\$1,433	\$1,449	-\$3	\$50	0%	0.948
Year 4	\$812	\$827	\$8	\$18	1%	0.666	\$1,449	\$1,478	-\$16	\$51	-1%	0.747
Years 1–4 combined	\$796	\$806	\$12	\$13	2%	0.353	\$1,424	\$1,437	\$0	\$40	0%	0.999
Test whether impacts for Years 1–4 are jointly significant	F = 1.127	p-value = 0.344					F = 0.496	p-value = 0.739				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$185	\$169	-	-	-	-	\$503	\$448	-	-	-	-
Year 1	\$250	\$233	\$0	\$10	0%	0.991	\$535	\$506	-\$25	\$28	-4%	0.366
Year 2	\$265	\$242	\$7	\$8	2%	0.421	\$544	\$490	-\$1	\$20	0%	0.967
Year 3	\$280	\$263	\$0	\$8	0%	0.967	\$554	\$512	-\$12	\$26	-2%	0.639
Year 4	\$286	\$280	-\$11	\$8	-4%	0.174	\$540	\$529	-\$43*	\$23	-7%	0.057
Years 1–4 combined	\$290	\$275	-\$2	\$7	-1%	0.805	\$552	\$517	-\$20	\$21	-3%	0.335

G.7

Table G.1 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$11	\$23	-	-	-	-	\$68	\$93	-	-	-	-
Year 1	\$34	\$52	-\$7**	\$3	-11%	0.028	\$101	\$137	-\$12	\$8	-9%	0.15
Year 2	\$43	\$56	-\$2	\$4	-4%	0.619	\$110	\$142	-\$7	\$9	-5%	0.468
Year 3	\$51	\$69	-\$6	\$5	-10%	0.169	\$121	\$164	-\$18	\$11	-12%	0.119
Year 4	\$54	\$71	-\$5	\$3	-9%	0.122	\$125	\$161	-\$11	\$10	-8%	0.27
Years 1–4 combined	\$55	\$72	-\$5	\$3	-9%	0.123	\$122	\$159	-\$12	\$8	-9%	0.14
Outpatient												
Baseline	\$95	\$97	-	-	-	-	\$195	\$196	-	-	-	-
Year 1	\$105	\$106	\$1	\$3	1%	0.81	\$186	\$182	\$5	\$8	3%	0.521
Year 2	\$118	\$119	\$1	\$4	1%	0.854	\$198	\$194	\$6	\$12	3%	0.625
Year 3	\$129	\$134	-\$3	\$4	-2%	0.48	\$211	\$213	-\$1	\$10	-1%	0.907
Year 4	\$138	\$137	\$3	\$5	2%	0.531	\$223	\$217	\$8	\$13	4%	0.528
Years 1–4 combined	\$127	\$129	\$0	\$4	0%	0.946	\$204	\$202	\$4	\$10	2%	0.646
Physician												
Baseline	\$178	\$189	-	-	-	-	\$333	\$341	-	-	-	-
Year 1	\$196	\$208	-\$1	\$3	-1%	0.736	\$321	\$339	-\$10	\$8	-3%	0.201
Year 2	\$206	\$226	-\$8	\$5	-4%	0.138	\$328	\$351	-\$15	\$12	-4%	0.2
Year 3	\$220	\$231	\$0	\$4	0%	0.99	\$333	\$350	-\$9	\$13	-3%	0.481
Year 4	\$233	\$239	\$5	\$7	2%	0.467	\$342	\$352	-\$2	\$14	0%	0.908
Years 1–4 combined	\$221	\$233	-\$1	\$3	0%	0.801	\$331	\$348	-\$9	\$9	-3%	0.285
Primary care physician												
Baseline	\$30	\$32	-	-	-	-	\$57	\$60	-	-	-	-
Year 1	\$34	\$38	-\$1*	\$1	-3%	0.082	\$58	\$65	-\$3**	\$1	-5%	0.029
Year 2	\$36	\$41	-\$2**	\$1	-5%	0.044	\$59	\$66	-\$4**	\$2	-6%	0.046
Year 3	\$41	\$46	-\$3*	\$2	-7%	0.065	\$63	\$73	-\$6**	\$3	-9%	0.034
Year 4	\$46	\$52	-\$3*	\$2	-7%	0.059	\$70	\$80	-\$6**	\$3	-8%	0.048
Years 1–4 combined	\$41	\$46	-\$3**	\$1	-6%	0.024	\$63	\$71	-\$5**	\$2	-7%	0.02
Office-based primary care physician												
Baseline	\$18	\$19	-	-	-	-	\$28	\$28	-	-	-	-
Year 1	\$18	\$19	\$0	\$0	0%	0.945	\$26	\$26	\$0	\$1	0%	0.947
Year 2	\$18	\$21	-\$1**	\$1	-7%	0.026	\$25	\$27	-\$2**	\$1	-7%	0.041
Year 3	\$19	\$22	-\$2**	\$1	-8%	0.032	\$26	\$29	-\$3**	\$1	-11%	0.012
Year 4	\$20	\$23	-\$1*	\$1	-7%	0.082	\$27	\$30	-\$3**	\$1	-10%	0.019
Years 1–4 combined	\$19	\$21	-\$1**	\$1	-6%	0.044	\$26	\$28	-\$2**	\$1	-7%	0.024

Table G.1 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$80	\$80	-	-	-	-	\$157	\$150	-	-	-	-
Year 1	\$89	\$89	\$1	\$3	1%	0.854	\$148	\$146	-\$5	\$6	-3%	0.396
Year 2	\$95	\$94	\$1	\$3	1%	0.599	\$151	\$144	-\$1	\$6	-1%	0.852
Year 3	\$99	\$95	\$4	\$3	4%	0.148	\$146	\$139	-\$1	\$5	0%	0.905
Year 4	\$103	\$98	\$6	\$3	6%	0.102	\$148	\$138	\$3	\$6	2%	0.605
Years 1–4 combined	\$99	\$97	\$3	\$2	3%	0.165	\$148	\$142	-\$1	\$4	-1%	0.801
Office-based specialist												
Baseline	\$16	\$18	-	-	-	-	\$29	\$31	-	-	-	-
Year 1	\$17	\$19	\$0	\$0	2%	0.324	\$27	\$29	\$0	\$1	1%	0.579
Year 2	\$17	\$19	\$0	\$1	1%	0.776	\$26	\$29	\$0	\$1	-1%	0.857
Year 3	\$18	\$19	\$0	\$1	3%	0.504	\$26	\$28	\$0	\$1	2%	0.687
Year 4	\$18	\$19	\$1	\$1	6%	0.167	\$26	\$27	\$1	\$1	4%	0.37
Years 1–4 combined	\$18	\$19	\$0	\$1	3%	0.327	\$26	\$28	\$0	\$1	1%	0.618
Home health												
Baseline	\$19	\$32	-	-	-	-	\$78	\$109	-	-	-	-
Year 1	\$24	\$39	-\$2	\$1	-5%	0.106	\$71	\$103	-\$1	\$3	-1%	0.844
Year 2	\$30	\$39	\$5***	\$2	15%	0.001	\$80	\$100	\$11**	\$5	14%	0.018
Year 3	\$36	\$45	\$5***	\$2	13%	0.005	\$88	\$106	\$13***	\$4	17%	0.001
Year 4	\$38	\$51	\$1	\$2	3%	0.538	\$90	\$117	\$5	\$4	6%	0.268
Years 1–4 combined	\$38	\$50	\$2*	\$1	6%	0.072	\$87	\$111	\$7**	\$3	9%	0.035
Hospice ^a												
Baseline	-\$3	-\$1	-	-	-	-	\$7	\$9	-	-	-	-
Year 1	\$12	\$10	\$4*	\$2	24%	0.086	\$36	\$32	\$7	\$5	19%	0.132
Year 2	\$17	\$15	\$4	\$3	21%	0.166	\$44	\$38	\$9	\$6	22%	0.145
Year 3	\$22	\$18	\$5*	\$3	26%	0.096	\$51	\$42	\$12	\$7	29%	0.101
Year 4	\$27	\$23	\$5*	\$3	22%	0.099	\$62	\$49	\$15***	\$6	32%	0.008
Years 1–4 combined	\$23	\$20	\$4*	\$2	23%	0.089	\$51	\$43	\$11**	\$5	26%	0.037
DME												
Baseline	\$27	\$27	-	-	-	-	\$70	\$69	-	-	-	-
Year 1	\$27	\$25	\$1	\$1	3%	0.21	\$59	\$57	\$0	\$2	0%	0.905
Year 2	\$25	\$25	-\$1	\$1	-2%	0.572	\$54	\$54	-\$1	\$3	-2%	0.746
Year 3	\$27	\$28	-\$2**	\$1	-8%	0.041	\$57	\$61	-\$6*	\$3	-10%	0.073
Year 4	\$25	\$25	-\$1	\$1	-3%	0.548	\$53	\$54	-\$3	\$3	-5%	0.438
Years 1–4 combined	\$27	\$27	-\$1	\$1	-3%	0.352	\$56	\$56	-\$2	\$2	-4%	0.324

G.9

Table G.1 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	241	229	-	-	-	-	603	569	-	-	-	-
Year 1	294	279	3	5	1%	0.556	629	608	-13	17	-2%	0.423
Year 2	300	287	0	8	0%	0.966	622	597	-9	21	-1%	0.672
Year 3	313	315	-13*	7	-4%	0.068	630	646	-50**	22	-7%	0.02
Year 4	317	324	-18**	9	-5%	0.043	622	650	-63**	27	-9%	0.021
Years 1–4 combined	329	325	-8	6	-2%	0.195	641	639	-33*	18	-5%	0.07
Total ED visits												
Baseline	576	575	-	-	-	-	1,277	1,256	-	-	-	-
Year 1	651	658	-8	14	-1%	0.556	1,279	1,292	-34	41	-2%	0.417
Year 2	701	690	10	16	1%	0.53	1,329	1,308	1	41	0%	0.983
Year 3	771	777	-7	17	-1%	0.676	1,434	1,457	-43	44	-3%	0.329
Year 4	788	795	-8	17	-1%	0.637	1,453	1,462	-30	58	-2%	0.6
Years 1–4 combined	773	777	-5	14	-1%	0.738	1,388	1,394	-26	41	-2%	0.517
Outpatient ED visits												
Baseline	451	443	-	-	-	-	918	881	-	-	-	-
Year 1	483	480	-5	13	-1%	0.707	877	863	-23	36	-3%	0.528
Year 2	518	502	8	15	2%	0.565	907	879	-9	35	-1%	0.796
Year 3	568	556	4	16	1%	0.795	987	961	-11	41	-1%	0.786
Year 4	579	563	8	14	1%	0.572	1,006	955	14	43	1%	0.75
Years 1–4 combined	562	550	4	13	1%	0.778	944	916	-8	35	-1%	0.824
Observation stays												
Baseline	55	62	-	-	-	-	123	140	-	-	-	-
Year 1	60	65	2	5	3%	0.714	120	127	9	14	8%	0.497
Year 2	69	67	8	5	13%	0.105	132	120	29*	15	28%	0.053
Year 3	75	71	10**	5	15%	0.036	144	127	33**	15	30%	0.032
Year 4	78	75	9	6	14%	0.119	146	137	26	19	22%	0.165
Years 1–4 combined	75	74	8*	5	12%	0.092	137	129	24*	14	22%	0.088
Primary care visits												
Baseline	7,170	7,664	-	-	-	-	11,768	12,363	-	-	-	-
Year 1	7,795	8,463	-175	118	-2%	0.138	11,741	12,911	-575**	229	-5%	0.012
Year 2	7,827	8,799	-479***	160	-6%	0.003	11,605	12,995	-796***	285	-6%	0.005
Year 3	8,255	9,485	-737***	234	-8%	0.002	11,991	14,185	-1,600***	414	-12%	<.001
Year 4	8,753	9,985	-738***	263	-8%	0.005	12,685	14,743	-1,463***	502	-10%	0.004
Years 1–4 combined	8,494	9,589	-580***	169	-6%	0.001	12,109	13,815	-1,105***	305	-8%	<.001

Table G.1 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	4,135	4,310	-	-	-	-	6,051	6,067	-	-	-	-
Year 1	4,238	4,391	22	62	1%	0.723	5,688	5,706	-2	96	0%	0.987
Year 2	4,151	4,564	-238**	111	-5%	0.032	5,425	5,819	-378**	167	-7%	0.023
Year 3	4,325	4,745	-244	175	-5%	0.162	5,534	6,051	-500*	287	-8%	0.082
Year 4	4,504	4,881	-201	185	-4%	0.276	5,739	6,169	-414	291	-7%	0.154
Years 1–4 combined	4,372	4,727	-177	125	-4%	0.156	5,558	5,892	-317*	184	-5%	0.084
Specialist visits												
Baseline	10,523	11,013	-	-	-	-	19,392	19,656	-	-	-	-
Year 1	11,272	11,688	75	151	1%	0.619	18,426	18,989	-300	383	-2%	0.434
Year 2	11,709	12,095	105	169	1%	0.536	18,403	18,863	-197	316	-1%	0.533
Year 3	12,197	12,421	266	230	2%	0.247	18,320	18,935	-351	337	-2%	0.297
Year 4	12,425	12,483	433*	238	4%	0.07	18,238	18,360	141	369	1%	0.701
Years 1–4 combined	12,410	12,683	237	170	2%	0.163	18,396	18,844	-184	251	-1%	0.464
Office-based specialist visits												
Baseline	3,468	3,806	-	-	-	-	5,926	6,337	-	-	-	-
Year 1	3,608	3,858	88*	49	2%	0.072	5,501	5,795	117	100	2%	0.241
Year 2	3,653	3,888	104	113	3%	0.358	5,369	5,707	72	208	1%	0.728
Year 3	3,684	3,879	144	159	4%	0.366	5,163	5,395	178	233	4%	0.443
Year 4	3,710	3,785	263*	155	8%	0.089	5,070	5,161	320	237	7%	0.177
Years 1–4 combined	3,763	3,951	159	114	5%	0.162	5,240	5,482	166	167	3%	0.319
Total number of observations (CPC and comparison) across all years ^b	1,252,341						338,517					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.1 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

//**** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME = durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.2. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Arkansas

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	88.2	87.9	-	-	-	-	85.8	84.9	-	-	-	-
Year 1	89.5	89.3	-0.2	0.7	-	0.838	87.8	87.1	-0.3	1.1	-	0.806
Year 2	90.0	90.1	-0.6	1.2	-	0.626	87.7	88.5	-1.8	1.6	-	0.258
Year 3	90.9	90.8	-0.3	1.0	-	0.76	90.2	89.9	-0.7	1.4	-	0.627
Year 4	91.3	91.6	-0.7	1.0	-	0.526	90.5	90.8	-1.3	1.6	-	0.396
Years 1–4 combined	90.5	90.5	-0.4	0.8	-	0.593	89.1	89.2	-1.0	1.2	-	0.393
Among patients with diabetes—eye exam												
Baseline	51.3	48.1	-	-	-	-	51.1	48.1	-	-	-	-
Year 1	54.8	49.8	1.9	1.2	-	0.131	55.0	50.5	1.4	1.7	-	0.396
Year 2	54.0	48.7	2.1*	1.3	-	0.096	53.8	48.4	2.3	1.8	-	0.205
Year 3	54.7	51.7	-0.2	1.1	-	0.889	55.8	52.3	0.4	1.8	-	0.809
Year 4	54.2	52.6	-1.6	1.2	-	0.214	54.7	50.2	1.4	2.3	-	0.55
Years 1–4 combined	55.1	51.5	0.5	1.0	-	0.629	55.6	51.1	1.4	1.4	-	0.304
Among patients with diabetes—urine protein test												
Baseline	46.5	50.1	-	-	-	-	52.7	56.7	-	-	-	-
Year 1	49.4	53.4	-0.3	1.6	-	0.843	54.2	59.4	-1.1	2.5	-	0.659
Year 2	52.0	56.9	-1.3	2.4	-	0.597	57.5	61.5	0.0	2.5	-	0.996
Year 3	63.4	68.8	-1.8	2.7	-	0.504	70.6	78.5	-3.9	2.7	-	0.158
Year 4	66.8	70.4	0.0	2.8	-	0.992	74.3	79.2	-0.9	2.6	-	0.731
Years 1–4 combined	59.4	63.9	-0.8	1.6	-	0.629	63.8	69.4	-1.4	1.8	-	0.444
Among patients with diabetes—all three tests performed												
Baseline	25.7	25.8	-	-	-	-	27.6	28.4	-	-	-	-
Year 1	29.8	28.8	1.1	1.5	-	0.464	31.8	32.2	0.3	2.9	-	0.908
Year 2	29.5	28.8	0.8	1.6	-	0.622	32.1	29.2	3.6**	1.7	-	0.033
Year 3	33.7	35.3	-1.5	1.4	-	0.299	38.4	39.7	-0.6	1.9	-	0.753
Year 4	35.6	36.0	-0.3	1.8	-	0.846	39.9	38.4	2.2	2.4	-	0.348
Years 1–4 combined	33.1	33.2	0.0	0.9	-	0.977	35.9	35.2	1.4	1.6	-	0.353

Table G.2 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	6.7	6.5	-	-	-	-	6.9	6.8	-	-	-	-
Year 1	5.7	6.0	-0.4	0.6	-	0.492	5.8	6.6	-0.9	0.9	-	0.287
Year 2	5.1	5.5	-0.6	0.8	-	0.452	5.4	5.6	-0.3	1.0	-	0.783
Year 3	2.7	2.8	-0.3	0.7	-	0.713	2.5	2.4	0.0	0.9	-	0.98
Year 4	2.3	2.1	0.0	0.7	-	0.951	1.8	1.6	0.1	0.8	-	0.931
Years 1–4 combined	3.7	3.8	-0.3	0.5	-	0.607	3.9	4.0	-0.3	0.7	-	0.654
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	156,105						56,206					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	81.5	78.1	-	-	-	-	77.4	72.9	-	-	-	-
Years 1–4 combined	68.9	63.4	2.1	3.2	3.2%	0.511	65.8	59.8	1.5	3.4	2.4%	0.651
Percentage of all visits at attributed practice												
Baseline	49.2	50.3	-	-	-	-	42.4	43.6	-	-	-	-
Years 1–4 combined	40.5	39.1	2.5	1.9	6.6%	0.183	36.4	35.0	2.6	2.0	7.6%	0.191
Bice-Boxerman Index based on PCP visits												
Baseline	74.5	71.1	-	-	-	-	69.8	66.4	-	-	-	-
Years 1–4 combined	68.9	62.0	3.5	2.6	5.4%	0.171	66.3	59.4	3.6	2.8	5.7%	0.192
Bice-Boxerman Index based on all visits												
Baseline	36.5	36.7	-	-	-	-	30.5	30.9	-	-	-	-
Years 1–4 combined	33.5	32.0	1.7	1.1	5.4%	0.129	30.3	29.1	1.5	1.3	5.4%	0.229
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	309,098						98,828					

Table G.2 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	339,320						108,626					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	55.2	56.6	-	-	-	-	59.1	60.6	-	-	-	-
Year 1	55.0	58.7	-2.3*	1.3	-	0.091	58.4	62.8	-2.8	1.8	-	0.111
Year 2	58.0	58.8	0.6	1.3	-	0.678	61.6	62.4	0.7	2.0	-	0.738
Year 3	58.3	59.9	-0.2	1.5	-	0.872	60.7	64.7	-2.6	2.3	-	0.273
Year 4	61.2	63.3	-0.7	1.5	-	0.614	64.5	66.1	0.0	1.9	-	0.982
Years 1–4 combined	58.9	61.0	-0.7	1.3	-	0.579	61.4	64.1	-1.2	1.8	-	0.501
Total number of observations (CPC and comparison) across all years: follow-up visit	344,051						181,616					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	45.3	52.2	-	-	-	-	138.5	155.8	-	-	-	-
Year 1	66.7	69.7	3.9	3.0	4.9%	0.193	176.9	188.2	6.1	9.3	3.3%	0.515
Year 2	70.0	71.6	5.3	3.5	6.9%	0.137	176.9	187.2	7.0	10.5	3.9%	0.504
Year 3	72.4	79.4	-0.1	2.9	-0.2%	0.963	173.9	196.7	-5.4	10.0	-3.0%	0.589
Year 4	73.5	85.5	-5.1	3.7	-6.5%	0.166	173.1	207.5	-17.1	12.9	-9.1%	0.183
Years 1–4 combined	78.9	85.6	1.0	2.8	1.3%	0.709	181.9	201.8	-1.8	8.6	-1.0%	0.835
Total number of observations (CPC and comparison) across all years: ACSC admissions	1,252,341						338,517					
Likelihood of 30-day readmission (percentage)												
Baseline	13.0	13.4	-	-	-	-	16.1	17.0	-	-	-	-
Year 1	14.5	14.5	0.4	0.7	-	0.522	17.9	18.0	0.9	1.0	-	0.392
Year 2	14.6	14.1	0.9	0.6	-	0.154	18.0	17.9	0.9	0.9	-	0.314
Year 3	15.0	14.8	0.6	0.7	-	0.355	18.6	18.8	0.7	1.1	-	0.497
Year 4	15.1	14.9	0.6	0.7	-	0.42	17.9	18.6	0.2	1.0	-	0.859
Years 1–4 combined	15.0	14.8	0.6	0.6	-	0.258	18.0	18.2	0.6	0.7	-	0.339

Table G.2 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	344,133						181,647					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	4.4	3.8	-	-	-	-	9.9	8.7	-	-	-	-
Year 1	4.2	4.0	-0.4**	0.2	-	0.022	8.9	8.2	-0.6	0.4	-	0.128
Year 2	4.8	4.3	-0.1	0.2	-	0.557	9.3	8.5	-0.4	0.4	-	0.329
Year 3	5.4	5.2	-0.4*	0.2	-	0.072	10.4	9.6	-0.4	0.5	-	0.386
Year 4	6.8	6.6	-0.5*	0.3	-	0.065	12.5	12.2	-1.0*	0.6	-	0.095
Years 1–4 combined	5.8	5.5	-0.4**	0.2	-	0.04	10.4	9.8	-0.6*	0.4	-	0.098
Total number of observations (CPC and comparison) across all years: ED revisit	1,252,341						338,517					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.3. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Colorado

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$490	\$504	-	-	-	-	\$1,273	\$1,323	-	-	-	-
Year 1	\$603	\$620	-\$2	\$20	0%	0.903	\$1,253	\$1,305	-\$2	\$88	0%	0.982
Year 2	\$659	\$692	-\$19	\$19	-3%	0.307	\$1,310	\$1,354	\$6	\$54	0%	0.91
Year 3	\$704	\$727	-\$9	\$23	-1%	0.679	\$1,355	\$1,406	-\$1	\$94	0%	0.989
Year 4	\$756	\$774	-\$4	\$28	0%	0.898	\$1,432	\$1,498	-\$16	\$85	-1%	0.856
Years 1–4 combined	\$731	\$753	-\$9	\$20	-1%	0.658	\$1,358	\$1,410	-\$3	\$73	0%	0.966
Test whether impacts for Years 1–4 are jointly significant	F = 0.311	p-value = 0.87					F = 0.056	p-value = 0.994				
With CPC care management fees												
Baseline	\$490	\$503	-	-	-	-	\$1,273	\$1,324	-	-	-	-
Year 1	\$622	\$619	\$17	\$20	2%	0.409	\$1,283	\$1,305	\$28	\$88	2%	0.75
Year 2	\$676	\$691	-\$1	\$19	0%	0.939	\$1,342	\$1,354	\$38	\$54	3%	0.484
Year 3	\$716	\$727	\$4	\$23	1%	0.868	\$1,377	\$1,406	\$21	\$94	2%	0.823
Year 4	\$767	\$774	\$7	\$28	1%	0.791	\$1,449	\$1,498	\$2	\$85	0%	0.983
Years 1–4 combined	\$746	\$753	\$6	\$20	1%	0.757	\$1,384	\$1,411	\$22	\$73	2%	0.758
Test whether impacts for Years 1–4 are jointly significant	F = 0.228	p-value = 0.922					F = 0.321	p-value = 0.864				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$161	\$168	-	-	-	-	\$464	\$475	-	-	-	-
Year 1	\$211	\$214	\$4	\$10	2%	0.681	\$457	\$470	-\$2	\$38	0%	0.953
Year 2	\$226	\$229	\$3	\$12	1%	0.776	\$463	\$463	\$11	\$36	2%	0.754
Year 3	\$232	\$233	\$6	\$11	2%	0.617	\$460	\$479	-\$8	\$39	-2%	0.839
Year 4	\$247	\$248	\$6	\$12	2%	0.645	\$487	\$500	-\$2	\$38	0%	0.95
Years 1–4 combined	\$245	\$247	\$5	\$9	2%	0.619	\$471	\$482	\$0	\$32	0%	0.994

Table G.3 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$17	\$18	-	-	-	-	\$101	\$113	-	-	-	-
Year 1	\$38	\$42	-\$4	\$7	-6%	0.567	\$123	\$123	\$12	\$29	10%	0.675
Year 2	\$46	\$53	-\$7	\$6	-10%	0.289	\$133	\$149	-\$3	\$19	-2%	0.856
Year 3	\$52	\$56	-\$3	\$8	-5%	0.703	\$148	\$145	\$15	\$30	11%	0.623
Year 4	\$55	\$61	-\$5	\$10	-8%	0.619	\$147	\$169	-\$9	\$28	-6%	0.747
Years 1–4 combined	\$57	\$63	-\$5	\$8	-8%	0.544	\$145	\$154	\$4	\$26	3%	0.888
Outpatient												
Baseline	\$97	\$102	-	-	-	-	\$216	\$229	-	-	-	-
Year 1	\$108	\$118	-\$5	\$5	-4%	0.36	\$194	\$222	-\$15	\$13	-7%	0.258
Year 2	\$122	\$134	-\$8	\$5	-6%	0.128	\$216	\$222	\$7	\$8	3%	0.424
Year 3	\$130	\$146	-\$11*	\$6	-8%	0.066	\$216	\$246	-\$18	\$15	-8%	0.235
Year 4	\$143	\$157	-\$9	\$6	-6%	0.118	\$243	\$265	-\$9	\$14	-4%	0.518
Years 1–4 combined	\$130	\$143	-\$8**	\$4	-6%	0.03	\$215	\$236	-\$9	\$10	-4%	0.378
Physician												
Baseline	\$182	\$177	-	-	-	-	\$345	\$337	-	-	-	-
Year 1	\$194	\$185	\$4	\$4	2%	0.331	\$314	\$299	\$8	\$12	2%	0.544
Year 2	\$202	\$199	-\$2	\$4	-1%	0.63	\$313	\$311	-\$5	\$9	-2%	0.573
Year 3	\$216	\$208	\$3	\$4	1%	0.47	\$328	\$316	\$4	\$12	1%	0.729
Year 4	\$228	\$215	\$9	\$6	4%	0.118	\$338	\$315	\$16	\$15	5%	0.271
Years 1–4 combined	\$219	\$210	\$4	\$4	2%	0.322	\$325	\$312	\$5	\$9	2%	0.555
Primary care physician												
Baseline	\$29	\$30	-	-	-	-	\$62	\$61	-	-	-	-
Year 1	\$34	\$34	\$0	\$1	1%	0.687	\$62	\$60	\$0	\$2	0%	0.918
Year 2	\$37	\$37	-\$1	\$1	-1%	0.645	\$66	\$62	\$2	\$3	3%	0.391
Year 3	\$43	\$43	\$1	\$1	1%	0.663	\$74	\$72	\$1	\$4	1%	0.877
Year 4	\$46	\$44	\$2	\$1	4%	0.164	\$77	\$72	\$3	\$4	4%	0.383
Years 1–4 combined	\$42	\$42	\$1	\$1	2%	0.546	\$70	\$68	\$2	\$3	2%	0.579
Office-based primary care physician												
Baseline	\$17	\$16	-	-	-	-	\$30	\$27	-	-	-	-
Year 1	\$18	\$17	\$1	\$0	3%	0.146	\$29	\$27	\$0	\$1	0%	0.964
Year 2	\$18	\$17	\$0	\$1	2%	0.49	\$29	\$26	\$0	\$1	1%	0.742
Year 3	\$19	\$18	\$1	\$1	3%	0.269	\$30	\$27	\$1	\$1	2%	0.645
Year 4	\$19	\$18	\$1	\$1	5%	0.18	\$29	\$25	\$1	\$1	4%	0.389
Years 1–4 combined	\$19	\$18	\$1	\$0	3%	0.177	\$30	\$26	\$1	\$1	2%	0.559

Table G.3 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$88	\$88	-	-	-	-	\$177	\$176	-	-	-	-
Year 1	\$94	\$93	\$1	\$3	1%	0.681	\$155	\$154	\$1	\$7	0%	0.937
Year 2	\$97	\$97	-\$1	\$3	-1%	0.79	\$149	\$158	-\$10	\$10	-6%	0.317
Year 3	\$100	\$98	\$2	\$3	2%	0.597	\$150	\$147	\$2	\$8	1%	0.818
Year 4	\$105	\$98	\$6	\$4	6%	0.126	\$152	\$140	\$12	\$9	8%	0.186
Years 1–4 combined	\$103	\$100	\$2	\$2	2%	0.36	\$152	\$151	\$1	\$6	1%	0.888
Office-based specialist												
Baseline	\$18	\$17	-	-	-	-	\$34	\$32	-	-	-	-
Year 1	\$19	\$17	\$0	\$0	0%	0.856	\$31	\$29	\$0	\$0	-1%	0.491
Year 2	\$19	\$18	\$0	\$0	-1%	0.586	\$30	\$28	\$0	\$1	-1%	0.584
Year 3	\$19	\$18	\$0	\$0	0%	0.998	\$29	\$27	\$0	\$1	0%	0.957
Year 4	\$19	\$18	\$0	\$0	1%	0.716	\$29	\$27	\$0	\$1	0%	0.964
Years 1–4 combined	\$19	\$18	\$0	\$0	0%	0.978	\$29	\$28	\$0	\$1	-1%	0.72
Home health												
Baseline	\$13	\$15	-	-	-	-	\$61	\$69	-	-	-	-
Year 1	\$19	\$24	-\$2	\$2	-5%	0.323	\$63	\$74	-\$2	\$8	-2%	0.842
Year 2	\$24	\$29	-\$2	\$3	-5%	0.514	\$72	\$77	\$4	\$4	5%	0.384
Year 3	\$30	\$31	\$2	\$2	6%	0.188	\$83	\$81	\$10*	\$6	14%	0.06
Year 4	\$33	\$36	\$0	\$3	1%	0.928	\$88	\$96	\$1	\$8	2%	0.872
Years 1–4 combined	\$32	\$35	\$0	\$1	0%	0.937	\$80	\$85	\$4	\$5	5%	0.446
Hospice ^a												
Baseline	-\$5	-\$1	-	-	-	-	\$9	\$22	-	-	-	-
Year 1	\$8	\$11	\$0	\$3	1%	0.957	\$38	\$50	\$1	\$6	1%	0.931
Year 2	\$16	\$23	-\$3	\$5	-13%	0.469	\$56	\$71	-\$1	\$10	-2%	0.898
Year 3	\$20	\$27	-\$4	\$5	-14%	0.472	\$63	\$70	\$6	\$14	9%	0.698
Year 4	\$26	\$30	\$0	\$4	-1%	0.933	\$76	\$88	\$2	\$13	2%	0.906
Years 1–4 combined	\$23	\$28	-\$2	\$4	-8%	0.625	\$64	\$75	\$2	\$9	3%	0.863
DME												
Baseline	\$25	\$25	-	-	-	-	\$79	\$78	-	-	-	-
Year 1	\$25	\$26	-\$1	\$1	-3%	0.322	\$64	\$66	-\$3	\$2	-5%	0.175
Year 2	\$24	\$25	-\$1	\$1	-4%	0.238	\$57	\$62	-\$6*	\$3	-9%	0.096
Year 3	\$25	\$27	-\$2	\$2	-8%	0.164	\$58	\$67	-\$11***	\$4	-16%	0.01
Year 4	\$23	\$27	-\$4**	\$2	-14%	0.029	\$52	\$65	-\$14**	\$7	-21%	0.04
Years 1–4 combined	\$26	\$28	-\$2**	\$1	-8%	0.041	\$58	\$65	-\$8***	\$3	-13%	0.009

Table G.3 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	175	199	-	-	-	-	471	530	-	-	-	-
Year 1	216	234	5	10	2%	0.598	487	510	36	39	8%	0.352
Year 2	214	241	-4	9	-2%	0.641	461	507	13	20	3%	0.512
Year 3	226	247	2	9	1%	0.8	479	528	10	40	2%	0.798
Year 4	227	255	-5	11	-2%	0.645	483	563	-21	43	-4%	0.627
Years 1–4 combined	237	262	-1	9	0%	0.929	488	538	10	32	2%	0.759
Total ED visits												
Baseline	448	478	-	-	-	-	1,069	1,134	-	-	-	-
Year 1	516	539	7	15	1%	0.654	1,110	1,112	62	49	6%	0.202
Year 2	558	608	-20	16	-3%	0.193	1,157	1,197	25	37	2%	0.51
Year 3	607	637	0	16	0%	0.983	1,254	1,249	70	57	6%	0.22
Year 4	624	645	9	16	1%	0.6	1,289	1,342	12	79	1%	0.881
Years 1–4 combined	615	647	-1	14	0%	0.958	1,212	1,234	42	47	4%	0.369
Outpatient ED visits												
Baseline	353	368	-	-	-	-	763	791	-	-	-	-
Year 1	388	397	6	12	1%	0.606	766	760	34	33	5%	0.3
Year 2	429	459	-15	12	-3%	0.243	825	830	23	30	3%	0.449
Year 3	461	481	-5	14	-1%	0.733	887	860	54	39	7%	0.16
Year 4	476	484	8	15	2%	0.61	922	922	28	59	3%	0.635
Years 1–4 combined	460	477	-1	11	0%	0.899	846	838	35	33	4%	0.297
Observation stays												
Baseline	32	33	-	-	-	-	79	70	-	-	-	-
Year 1	41	37	5	3	11%	0.176	87	78	0	9	0%	0.966
Year 2	53	47	7	5	13%	0.162	105	92	4	10	4%	0.679
Year 3	53	49	4	4	8%	0.306	108	102	-2	13	-2%	0.845
Year 4	58	53	6	5	12%	0.261	119	105	5	17	4%	0.773
Years 1–4 combined	55	50	6	4	12%	0.143	106	95	2	9	1%	0.867
Primary care visits												
Baseline	5,468	5,519	-	-	-	-	9,955	9,872	-	-	-	-
Year 1	6,118	5,903	266***	97	4%	0.006	10,372	9,760	528**	225	5%	0.019
Year 2	6,318	6,288	81	132	1%	0.539	10,746	10,102	561**	260	5%	0.031
Year 3	6,659	6,674	37	152	1%	0.81	11,380	10,928	370	356	3%	0.299
Year 4	6,925	6,801	175	143	3%	0.219	11,626	11,066	477	426	4%	0.263
Years 1–4 combined	6,880	6,788	142	119	2%	0.235	11,175	10,589	489*	260	5%	0.06

Table G.3 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	3,547	3,517	-	-	-	-	6,051	5,532	-	-	-	-
Year 1	3,804	3,611	163***	60	4%	0.006	6,041	5,309	212	135	4%	0.117
Year 2	3,832	3,689	112	93	3%	0.224	5,962	5,248	194	191	3%	0.311
Year 3	3,921	3,803	88	117	2%	0.454	5,979	5,365	95	240	2%	0.692
Year 4	3,954	3,820	104	128	3%	0.415	5,821	5,171	131	280	2%	0.64
Years 1–4 combined	4,006	3,857	117	97	3%	0.226	5,952	5,275	158	186	3%	0.396
Specialist visits												
Baseline	9,553	9,871	-	-	-	-	18,150	18,876	-	-	-	-
Year 1	9,910	10,253	-26	157	0%	0.87	16,569	17,218	77	451	0%	0.865
Year 2	10,125	10,647	-205	200	-2%	0.307	16,081	17,046	-240	391	-1%	0.539
Year 3	10,424	10,799	-57	178	-1%	0.748	16,304	16,903	127	533	1%	0.812
Year 4	10,723	10,864	177	201	2%	0.379	16,451	16,645	532	537	3%	0.321
Years 1–4 combined	10,776	11,122	-17	163	0%	0.916	16,453	17,066	120	401	1%	0.764
Office-based specialist visits												
Baseline	3,531	3,393	-	-	-	-	6,430	6,142	-	-	-	-
Year 1	3,493	3,436	-81*	45	-2%	0.071	5,617	5,454	-124	102	-2%	0.225
Year 2	3,536	3,540	-142**	67	-4%	0.034	5,354	5,283	-216*	128	-4%	0.092
Year 3	3,530	3,515	-123	76	-3%	0.104	5,213	5,067	-142	172	-3%	0.41
Year 4	3,559	3,481	-60	73	-2%	0.414	5,076	4,942	-152	178	-3%	0.393
Years 1–4 combined	3,655	3,615	-104*	60	-3%	0.082	5,317	5,192	-158	116	-3%	0.174
Total number of observations (CPC and comparison) across all years ^b	992,008						228,822					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in Year 1, 2, or 3, compared with baseline relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include expenditures on primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.3 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME= durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.4. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Colorado

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	90.1	88.5	-	-	-	-	87.1	84.2	-	-	-	-
Year 1	91.7	90.9	-0.8	1.5	-	0.58	89.0	91.3	-5.2**	2.1	-	0.012
Year 2	93.1	91.0	0.5	1.9	-	0.795	91.5	90.0	-1.4	2.3	-	0.531
Year 3	92.9	92.4	-1.1	1.6	-	0.474	91.9	93.7	-4.7**	2.3	-	0.04
Year 4	92.9	91.7	-0.4	1.8	-	0.821	92.4	90.8	-1.3	2.1	-	0.536
Years 1–4 combined	92.7	91.5	-0.5	1.5	-	0.751	91.3	91.6	-3.2*	1.9	-	0.096
Among patients with diabetes—eye exam												
Baseline	52.0	54.8	-	-	-	-	51.4	54.1	-	-	-	-
Year 1	54.7	56.3	1.2	2.6	-	0.653	55.1	54.8	2.9	4.0	-	0.47
Year 2	54.8	55.3	2.4*	1.4	-	0.084	54.6	52.7	4.5	3.2	-	0.16
Year 3	54.0	54.9	2.0	2.0	-	0.321	52.9	52.0	3.5	3.2	-	0.269
Year 4	54.6	56.9	0.6	2.1	-	0.794	55.1	53.7	3.9	4.7	-	0.404
Years 1–4 combined	55.3	56.6	1.5	1.6	-	0.352	55.4	54.3	3.7	3.3	-	0.255
Among patients with diabetes—urine protein test												
Baseline	58.4	55.0	-	-	-	-	64.7	59.7	-	-	-	-
Year 1	59.9	55.5	1.1	2.8	-	0.696	65.3	60.0	0.4	2.8	-	0.873
Year 2	62.7	57.7	1.6	2.8	-	0.551	65.8	63.4	-2.5	3.0	-	0.399
Year 3	62.1	63.0	-4.3	4.2	-	0.304	74.3	69.0	0.4	4.2	-	0.924
Year 4	63.0	65.6	-6.0*	3.4	-	0.08	75.2	75.7	-5.4	4.3	-	0.205
Years 1–4 combined	62.7	61.6	-2.3	2.5	-	0.367	70.5	67.1	-1.7	2.7	-	0.532
Among patients with diabetes—all three tests performed												
Baseline	32.4	32.3	-	-	-	-	34.0	32.6	-	-	-	-
Year 1	34.7	33.1	1.4	1.9	-	0.436	36.7	32.8	2.5	2.7	-	0.351
Year 2	36.1	34.3	1.7	2.5	-	0.494	37.2	36.4	-0.6	3.1	-	0.856
Year 3	32.8	34.6	-2.0	3.2	-	0.532	38.3	38.2	-1.3	3.3	-	0.7
Year 4	34.0	36.0	-2.1	2.4	-	0.385	40.2	37.3	1.5	3.6	-	0.684
Years 1–4 combined	35.1	35.3	-0.4	2.2	-	0.86	38.9	36.9	0.5	2.8	-	0.854

Table G.4 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	5.7	6.6	-	-	-	-	5.7	7.4	-	-	-	-
Year 1	4.3	3.7	1.5**	0.7	-	0.033	4.6	2.8	3.6**	1.5	-	0.015
Year 2	3.5	4.8	-0.4	0.9	-	0.685	3.8	5.3	0.2	1.0	-	0.855
Year 3	2.1	2.1	0.9	0.7	-	0.181	1.6	1.7	1.6	1.5	-	0.269
Year 4	2.1	2.0	1.0	0.8	-	0.191	1.3	1.4	1.6	1.4	-	0.241
Years 1–4 combined	2.8	3.0	0.7	0.6	-	0.182	2.8	2.8	1.7	1.1	-	0.13
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	96,112						30,719					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	77.8	77.3	-	-	-	-	74.8	73.7	-	-	-	-
Years 1–4 combined	61.8	60.1	1.2	2.4	2.0%	0.599	60.6	58.6	0.9	2.4	1.6%	0.697
Percentage of all visits at attributed practice												
Baseline	45.4	45.9	-	-	-	-	40.5	40.0	-	-	-	-
Years 1–4 combined	35.5	34.5	1.4	1.5	4.2%	0.355	34.6	32.8	1.4	1.7	4.1%	0.433
Bice-Boxerman Index based on PCP visits												
Baseline	69.7	69.3	-	-	-	-	66.9	66.3	-	-	-	-
Years 1–4 combined	58.8	56.5	1.9	2.1	3.4%	0.365	58.5	55.5	2.4	2.3	4.2%	0.308
Bice-Boxerman Index based on all visits												
Baseline	32.9	33.5	-	-	-	-	28.9	28.2	-	-	-	-
Years 1–4 combined	28.5	28.3	0.7	1.1	2.6%	0.5	27.9	26.6	0.7	1.3	2.6%	0.601
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	211,100						62,170					

Table G.4 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	257,648						74,344					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	64.4	62.7	-	-	-	-	72.1	69.6	-	-	-	-
Year 1	65.8	62.8	1.3	1.8	-	0.463	72.8	69.8	0.4	1.9	-	0.815
Year 2	66.3	64.1	0.4	1.1	-	0.704	74.1	72.2	-0.7	2.0	-	0.744
Year 3	67.3	63.2	2.4	2.3	-	0.288	74.3	70.5	1.2	1.8	-	0.508
Year 4	68.5	65.5	1.3	1.7	-	0.433	75.0	72.5	0.0	1.8	-	0.994
Years 1–4 combined	68.2	65.1	1.4	1.5	-	0.364	74.4	71.7	0.2	1.4	-	0.889
Total number of observations (CPC and comparison) across all years: follow-up visit	228,873						107,324					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	24.4	32.8	-	-	-	-	85.1	103.2	-	-	-	-
Year 1	36.3	45.3	-0.6	2.8	-1.3%	0.826	108.4	127.6	-1.1	11.7	-0.9%	0.923
Year 2	36.7	48.8	-3.8	2.8	-7.9%	0.187	104.5	131.4	-8.8	8.7	-7.3%	0.314
Year 3	40.8	45.3	3.9	3.5	9.6%	0.273	111.6	126.3	3.4	15.3	3.1%	0.822
Year 4	41.4	47.9	1.9	3.5	4.8%	0.595	119.0	129.1	8.0	14.6	7.2%	0.582
Years 1–4 combined	43.9	52.7	0.5	2.9	1.2%	0.853	115.5	134.1	0.3	10.8	0.3%	0.978
Total number of observations (CPC and comparison) across all years: ACSC admissions	992,008						228,822					
Likelihood of 30-day readmission (percentage)												
Baseline	10.9	10.8	-	-	-	-	14.1	14.5	-	-	-	-
Year 1	11.8	12.7	-0.9	0.9	-	0.325	15.3	15.8	-0.2	1.6	-	0.919
Year 2	11.2	12.5	-1.3**	0.6	-	0.043	14.5	15.6	-0.7	1.2	-	0.554
Year 3	12.0	12.1	-0.1	0.9	-	0.929	15.3	16.0	-0.4	0.9	-	0.675
Year 4	10.9	12.3	-1.4**	0.7	-	0.047	13.4	15.0	-1.2	1.0	-	0.246
Years 1–4 combined	11.6	12.5	-1.0*	0.5	-	0.073	14.6	15.6	-0.6	0.9	-	0.483

Table G.4 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	228,954						107,351					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	3.4	3.7	-	-	-	-	8.6	9.8	-	-	-	-
Year 1	3.5	3.6	0.2	0.2	-	0.28	8.3	7.9	1.6**	0.6	-	0.014
Year 2	3.9	4.0	0.2	0.2	-	0.509	8.8	8.7	1.3	0.8	-	0.112
Year 3	4.4	4.7	0.0	0.2	-	0.998	9.8	9.5	1.4	0.9	-	0.102
Year 4	5.7	5.7	0.2	0.2	-	0.315	12.4	11.4	2.1***	0.8	-	0.007
Years 1–4 combined	4.8	5.0	0.2	0.2	-	0.328	10.0	9.5	1.6***	0.6	-	0.009
Total number of observations (CPC and comparison) across all years: ED revisit	992,008						228,822					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

//*** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.5. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New Jersey

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$589	\$599	-	-	-	-	\$1,362	\$1,385	-	-	-	-
Year 1	\$756	\$810	-\$44***	\$16	-5%	0.006	\$1,494	\$1,561	-\$43	\$38	-3%	0.26
Year 2	\$835	\$876	-\$32*	\$18	-3%	0.081	\$1,574	\$1,640	-\$43	\$34	-3%	0.199
Year 3	\$937	\$930	\$17	\$19	2%	0.367	\$1,744	\$1,763	\$4	\$44	0%	0.921
Year 4	\$999	\$999	\$11	\$24	1%	0.658	\$1,811	\$1,811	\$24	\$51	1%	0.643
Years 1–4 combined	\$953	\$972	-\$9	\$15	-1%	0.533	\$1,689	\$1,726	-\$15	\$28	-1%	0.587
Test whether impacts for Years 1–4 are jointly significant	F = 4.286	p-value = 0.002					F = 0.957	p-value = 0.433				
With CPC care management fees												
Baseline	\$589	\$599	-	-	-	-	\$1,362	\$1,385	-	-	-	-
Year 1	\$774	\$809	-\$25	\$16	-3%	0.115	\$1,523	\$1,561	-\$15	\$38	-1%	0.703
Year 2	\$851	\$876	-\$15	\$18	-2%	0.422	\$1,602	\$1,640	-\$14	\$34	-1%	0.668
Year 3	\$949	\$929	\$30	\$19	3%	0.113	\$1,765	\$1,763	\$25	\$44	1%	0.564
Year 4	\$1,009	\$999	\$20	\$24	2%	0.405	\$1,826	\$1,811	\$39	\$51	2%	0.452
Years 1–4 combined	\$968	\$972	\$5	\$15	1%	0.741	\$1,712	\$1,726	\$8	\$28	0%	0.768
Test whether impacts for Years 1–4 are jointly significant	F = 2.866	p-value = 0.025					F = 0.427	p-value = 0.789				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$178	\$182	-	-	-	-	\$479	\$482	-	-	-	-
Year 1	\$255	\$284	-\$25**	\$10	-8%	0.01	\$548	\$564	-\$14	\$25	-2%	0.585
Year 2	\$280	\$306	-\$22*	\$11	-6%	0.056	\$563	\$603	-\$37*	\$22	-6%	0.098
Year 3	\$322	\$312	\$14	\$10	4%	0.185	\$648	\$631	\$20	\$33	3%	0.551
Year 4	\$341	\$334	\$10	\$14	3%	0.476	\$661	\$635	\$29	\$33	5%	0.382
Years 1–4 combined	\$326	\$334	-\$4	\$8	-1%	0.631	\$617	\$620	-\$1	\$18	0%	0.963

Table G.5 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$25	\$34	-	-	-	-	\$122	\$141	-	-	-	-
Year 1	\$61	\$74	-\$5	\$4	-5%	0.269	\$168	\$197	-\$10	\$11	-5%	0.362
Year 2	\$75	\$88	-\$6	\$4	-6%	0.199	\$188	\$223	-\$16	\$10	-7%	0.114
Year 3	\$92	\$98	\$3	\$5	3%	0.557	\$225	\$247	-\$3	\$10	-1%	0.801
Year 4	\$97	\$100	\$5	\$4	5%	0.291	\$228	\$244	\$2	\$12	1%	0.848
Years 1–4 combined	\$96	\$104	\$0	\$4	0%	0.963	\$213	\$238	-\$7	\$8	-3%	0.404
Outpatient												
Baseline	\$88	\$89	-	-	-	-	\$184	\$177	-	-	-	-
Year 1	\$101	\$109	-\$7**	\$3	-6%	0.045	\$183	\$188	-\$11	\$9	-6%	0.227
Year 2	\$115	\$123	-\$7	\$6	-6%	0.21	\$200	\$197	-\$4	\$11	-2%	0.718
Year 3	\$128	\$135	-\$5	\$4	-4%	0.21	\$213	\$222	-\$16	\$11	-7%	0.131
Year 4	\$140	\$149	-\$7	\$6	-5%	0.199	\$233	\$240	-\$14	\$13	-6%	0.28
Years 1–4 combined	\$127	\$134	-\$7*	\$4	-5%	0.094	\$206	\$210	-\$11	\$8	-5%	0.149
Physician												
Baseline	\$273	\$259	-	-	-	-	\$474	\$452	-	-	-	-
Year 1	\$294	\$287	-\$8*	\$4	-2%	0.091	\$468	\$457	-\$11	\$11	-2%	0.284
Year 2	\$308	\$292	\$1	\$5	0%	0.753	\$475	\$451	\$2	\$10	1%	0.8
Year 3	\$324	\$309	\$1	\$5	0%	0.841	\$491	\$476	-\$7	\$9	-1%	0.435
Year 4	\$342	\$326	\$2	\$6	1%	0.69	\$509	\$486	\$2	\$12	0%	0.884
Years 1–4 combined	\$330	\$316	\$0	\$4	0%	0.937	\$489	\$470	-\$4	\$8	-1%	0.637
Primary care physician												
Baseline	\$34	\$36	-	-	-	-	\$63	\$67	-	-	-	-
Year 1	\$42	\$46	-\$1	\$1	-3%	0.225	\$73	\$78	\$0	\$2	0%	0.871
Year 2	\$45	\$48	-\$1	\$1	-1%	0.672	\$77	\$80	\$1	\$2	1%	0.771
Year 3	\$51	\$52	\$2	\$1	4%	0.187	\$84	\$87	\$2	\$2	2%	0.403
Year 4	\$55	\$56	\$2	\$2	4%	0.269	\$89	\$89	\$4	\$3	5%	0.183
Years 1–4 combined	\$52	\$53	\$1	\$1	1%	0.607	\$82	\$85	\$2	\$2	2%	0.391
Office-based primary care physician												
Baseline	\$20	\$20	-	-	-	-	\$29	\$30	-	-	-	-
Year 1	\$21	\$22	-\$1***	\$0	-6%	0.004	\$29	\$30	-\$1*	\$1	-4%	0.078
Year 2	\$20	\$21	-\$1*	\$1	-5%	0.077	\$28	\$29	-\$1	\$1	-3%	0.258
Year 3	\$21	\$21	-\$1	\$1	-4%	0.158	\$27	\$28	-\$1	\$1	-3%	0.305
Year 4	\$21	\$22	-\$1	\$1	-4%	0.281	\$27	\$28	\$0	\$1	-1%	0.758
Years 1–4 combined	\$21	\$22	-\$1*	\$1	-5%	0.074	\$28	\$29	-\$1	\$1	-3%	0.286

Table G.5 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$140	\$131	-	-	-	-	\$258	\$245	-	-	-	-
Year 1	\$153	\$149	-\$5	\$3	-3%	0.129	\$253	\$250	-\$10	\$8	-4%	0.198
Year 2	\$161	\$149	\$3	\$4	2%	0.454	\$256	\$240	\$3	\$8	1%	0.737
Year 3	\$167	\$156	\$2	\$4	1%	0.664	\$260	\$245	\$2	\$7	1%	0.772
Year 4	\$177	\$166	\$2	\$4	1%	0.556	\$269	\$250	\$6	\$8	2%	0.461
Years 1–4 combined	\$172	\$162	\$1	\$3	0%	0.825	\$261	\$248	\$0	\$6	0%	0.974
Office-based specialist												
Baseline	\$35	\$33	-	-	-	-	\$59	\$56	-	-	-	-
Year 1	\$35	\$34	-\$1*	\$0	-2%	0.07	\$54	\$52	-\$1	\$1	-2%	0.191
Year 2	\$36	\$35	\$0	\$1	-1%	0.67	\$54	\$52	-\$1	\$1	-1%	0.454
Year 3	\$38	\$36	\$0	\$0	0%	0.822	\$55	\$53	-\$1	\$1	-2%	0.367
Year 4	\$39	\$37	\$0	\$1	-1%	0.708	\$55	\$53	-\$1	\$1	-1%	0.579
Years 1–4 combined	\$38	\$36	\$0	\$0	-1%	0.48	\$54	\$52	-\$1	\$1	-2%	0.208
Home health												
Baseline	\$14	\$20	-	-	-	-	\$55	\$73	-	-	-	-
Year 1	\$20	\$30	-\$3**	\$2	-10%	0.025	\$57	\$78	-\$3	\$3	-5%	0.287
Year 2	\$26	\$33	-\$1	\$2	-3%	0.572	\$64	\$83	\$0	\$4	-1%	0.914
Year 3	\$33	\$38	\$0	\$2	0%	0.934	\$75	\$98	-\$5*	\$3	-6%	0.084
Year 4	\$37	\$43	\$0	\$2	-1%	0.863	\$84	\$99	\$3	\$6	4%	0.653
Years 1–4 combined	\$34	\$41	-\$1	\$1	-3%	0.43	\$74	\$94	-\$2	\$3	-2%	0.613
Hospice ^a												
Baseline	-\$4	-\$1	-	-	-	-	\$5	\$13	-	-	-	-
Year 1	\$9	\$10	\$2	\$2	10%	0.538	\$32	\$38	\$1	\$6	3%	0.845
Year 2	\$16	\$18	\$1	\$4	6%	0.77	\$49	\$52	\$5	\$10	9%	0.628
Year 3	\$21	\$20	\$4	\$4	19%	0.304	\$56	\$51	\$13	\$8	29%	0.115
Year 4	\$25	\$27	\$1	\$3	4%	0.758	\$61	\$67	\$2	\$8	3%	0.814
Years 1–4 combined	\$22	\$23	\$2	\$3	9%	0.538	\$53	\$56	\$5	\$7	11%	0.454
DME												
Baseline	\$16	\$18	-	-	-	-	\$43	\$48	-	-	-	-
Year 1	\$17	\$17	\$2*	\$1	9%	0.082	\$38	\$38	\$5**	\$2	14%	0.047
Year 2	\$15	\$16	\$1	\$2	5%	0.658	\$34	\$32	\$7**	\$3	26%	0.028
Year 3	\$17	\$18	\$1	\$2	4%	0.693	\$36	\$39	\$3	\$5	8%	0.61
Year 4	\$18	\$19	\$1	\$1	4%	0.582	\$36	\$38	\$4	\$4	11%	0.306
Years 1–4 combined	\$17	\$19	\$0	\$2	1%	0.94	\$36	\$41	\$0	\$6	-1%	0.965

Table G.5 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	191	195	-	-	-	-	463	472	-	-	-	-
Year 1	245	262	-13	8	-4%	0.107	523	541	-9	20	-2%	0.646
Year 2	256	269	-9	10	-3%	0.358	529	542	-4	16	-1%	0.79
Year 3	280	279	6	7	2%	0.35	571	591	-12	19	-2%	0.532
Year 4	288	289	4	9	1%	0.65	580	589	-1	23	0%	0.981
Years 1–4 combined	291	299	-2	7	-1%	0.726	567	582	-7	15	-1%	0.651
Total ED visits												
Baseline	417	446	-	-	-	-	888	923	-	-	-	-
Year 1	491	518	2	10	0%	0.827	971	992	14	29	1%	0.642
Year 2	520	544	6	11	1%	0.619	1,001	1,005	31	26	3%	0.239
Year 3	561	593	-3	14	-1%	0.837	1,075	1,142	-32	36	-3%	0.377
Year 4	583	609	3	14	1%	0.822	1,110	1,189	-44	29	-4%	0.129
Years 1–4 combined	576	604	2	10	0%	0.836	1,057	1,099	-8	22	-1%	0.713
Outpatient ED visits												
Baseline	291	310	-	-	-	-	544	560	-	-	-	-
Year 1	310	319	9	7	3%	0.213	546	541	22	21	4%	0.311
Year 2	328	340	6	8	2%	0.444	564	554	27	19	5%	0.166
Year 3	345	373	-9	12	-3%	0.434	591	635	-28	25	-5%	0.263
Year 4	359	380	-2	11	-1%	0.866	613	677	-47*	25	-7%	0.057
Years 1–4 combined	349	367	0	8	0%	0.951	579	601	-7	15	-1%	0.662
Observation stays												
Baseline	29	23	-	-	-	-	63	48	-	-	-	-
Year 1	34	27	1	2	2%	0.706	70	51	4	6	6%	0.474
Year 2	39	35	-2	2	-5%	0.368	77	64	-2	6	-2%	0.803
Year 3	46	42	-2	3	-3%	0.579	87	80	-8	8	-8%	0.323
Year 4	53	43	4	4	8%	0.263	98	86	-2	8	-2%	0.798
Years 1–4 combined	47	40	0	2	1%	0.858	85	71	-2	6	-2%	0.747
Primary care visits												
Baseline	5,490	5,842	-	-	-	-	8,924	9,661	-	-	-	-
Year 1	6,246	6,892	-295*	175	-4%	0.091	10,123	10,830	30	286	0%	0.917
Year 2	6,487	6,998	-160	192	-2%	0.406	10,217	11,082	-128	365	-1%	0.726
Year 3	6,999	7,288	63	205	1%	0.76	11,096	11,770	63	337	1%	0.851
Year 4	7,241	7,748	-155	240	-2%	0.518	11,348	12,175	-89	411	-1%	0.828
Years 1–4 combined	7,165	7,663	-131	200	-2%	0.513	10,912	11,683	-31	310	0%	0.921

Table G.5 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	3,727	3,619	-	-	-	-	5,218	5,105	-	-	-	-
Year 1	3,796	3,948	-259**	107	-6%	0.015	5,126	5,190	-177	128	-3%	0.167
Year 2	3,710	3,806	-203**	99	-5%	0.041	4,810	4,878	-182	133	-4%	0.171
Year 3	3,691	3,772	-189**	92	-5%	0.04	4,730	4,787	-171	131	-3%	0.191
Year 4	3,706	3,828	-229**	104	-6%	0.028	4,642	4,706	-177	150	-4%	0.236
Years 1–4 combined	3,796	3,910	-223**	96	-6%	0.021	4,829	4,897	-176	123	-4%	0.154
Specialist visits												
Baseline	15,317	14,409	-	-	-	-	26,953	25,617	-	-	-	-
Year 1	15,890	15,715	-732***	173	-4%	<.001	25,865	25,541	-1,012***	378	-4%	0.007
Year 2	16,753	16,297	-452**	199	-3%	0.023	26,239	25,612	-709*	390	-3%	0.069
Year 3	17,414	16,770	-263	220	-1%	0.231	26,798	26,072	-609	473	-2%	0.197
Year 4	18,029	17,355	-233	223	-1%	0.297	27,012	26,110	-434	516	-2%	0.401
Years 1–4 combined	17,985	17,443	-416**	171	-2%	0.015	26,698	26,044	-697**	323	-3%	0.031
Office-based specialist visits												
Baseline	6,016	5,552	-	-	-	-	10,168	9,557	-	-	-	-
Year 1	5,913	5,650	-201***	75	-3%	0.007	9,005	8,665	-271*	141	-3%	0.054
Year 2	6,147	5,799	-116	105	-2%	0.269	8,919	8,532	-224	170	-2%	0.188
Year 3	6,274	5,963	-154	96	-2%	0.111	8,794	8,505	-322	227	-4%	0.157
Year 4	6,495	6,179	-147	104	-2%	0.158	8,796	8,457	-272	235	-3%	0.246
Years 1–4 combined	6,447	6,123	-158*	91	-2%	0.081	8,855	8,518	-271*	157	-3%	0.085
Total number of observations (CPC and comparison) across all years ^b	778,293						215,730					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in Year 1, 2, or 3, compared with baseline relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include expenditures on primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.5 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME= durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.6. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New Jersey

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	91.3	90.2	-	-	-	-	88.1	87.4	-	-	-	-
Year 1	92.5	92.7	-1.3	1.0	-	0.183	90.2	91.8	-2.4	1.8	-	0.182
Year 2	93.4	91.9	0.4	0.8	-	0.605	91.8	91.4	-0.4	1.6	-	0.821
Year 3	93.4	92.4	0.0	0.8	-	0.972	91.5	90.6	0.2	1.9	-	0.926
Year 4	93.6	92.9	-0.4	0.9	-	0.681	91.8	90.6	0.5	2.0	-	0.794
Years 1–4 combined	93.2	92.4	-0.3	0.6	-	0.647	91.5	91.4	-0.6	1.3	-	0.652
Among patients with diabetes—eye exam												
Baseline	61.5	56.6	-	-	-	-	62.8	55.1	-	-	-	-
Year 1	62.0	57.4	-0.2	1.7	-	0.889	64.1	57.8	-1.4	2.9	-	0.631
Year 2	61.3	61.1	-4.7***	1.7	-	0.005	61.6	61.6	-7.7***	2.3	-	0.001
Year 3	61.6	61.6	-4.9***	1.4	-	0.001	61.6	59.3	-5.4**	2.1	-	0.011
Year 4	62.0	60.4	-3.3	2.0	-	0.109	65.1	59.0	-1.6	3.5	-	0.644
Years 1–4 combined	62.4	60.9	-3.3**	1.4	-	0.018	64.1	60.4	-4.0**	1.6	-	0.011
Among patients with diabetes—urine protein test												
Baseline	63.8	61.8	-	-	-	-	66.9	65.3	-	-	-	-
Year 1	69.3	65.5	1.8	2.1	-	0.385	71.6	68.3	1.7	2.4	-	0.468
Year 2	70.1	66.9	1.3	2.0	-	0.515	71.9	68.2	2.0	2.8	-	0.462
Year 3	66.8	73.7	-9.0***	2.9	-	0.002	76.7	79.5	-4.4	2.8	-	0.113
Year 4	68.0	73.9	-7.9***	2.7	-	0.004	77.5	79.5	-3.6	2.9	-	0.211
Years 1–4 combined	68.9	70.7	-3.8**	1.7	-	0.026	74.7	73.9	-0.8	1.9	-	0.671
Among patients with diabetes—all three tests performed												
Baseline	42.0	38.7	-	-	-	-	43.8	40.2	-	-	-	-
Year 1	45.6	40.8	1.5	1.6	-	0.368	48.9	42.2	3.1	2.8	-	0.278
Year 2	44.7	43.7	-2.3	1.8	-	0.208	45.4	44.1	-2.3	2.1	-	0.27
Year 3	40.6	44.9	-7.6***	2.2	-	0.001	46.3	44.8	-2.0	2.7	-	0.453
Year 4	42.2	43.9	-4.9*	2.9	-	0.087	50.5	45.0	1.9	3.9	-	0.626
Years 1–4 combined	43.6	43.9	-3.6**	1.7	-	0.038	48.6	44.7	0.2	1.5	-	0.899

Table G.6 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	4.4	5.7	-	-	-	-	5.0	6.9	-	-	-	-
Year 1	3.9	3.7	1.5*	0.9	-	0.089	4.5	3.8	2.6**	1.2	-	0.035
Year 2	3.2	4.2	0.3	0.7	-	0.688	3.8	4.2	1.5	1.2	-	0.22
Year 3	2.0	2.1	1.1*	0.7	-	0.088	1.9	2.2	1.6	1.0	-	0.121
Year 4	2.0	2.1	1.1**	0.5	-	0.026	2.1	3.4	0.6	1.3	-	0.666
Years 1–4 combined	2.6	2.9	1.0*	0.5	-	0.072	3.0	3.2	1.5*	0.8	-	0.071
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	72,588						24,778					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	81.9	79.5	-	-	-	-	79.0	77.1	-	-	-	-
Years 1–4 combined	69.7	67.5	-0.3	1.7	-0.4%	0.875	68.4	65.4	1.1	2.3	1.6%	0.631
Percentage of all visits at attributed practice												
Baseline	39.2	39.9	-	-	-	-	31.8	33.0	-	-	-	-
Years 1–4 combined	31.0	32.4	-0.7	1.2	-2.3%	0.536	27.5	28.6	0.0	1.5	0.1%	0.987
Bice-Boxerman Index based on PCP visits												
Baseline	76.2	73.7	-	-	-	-	73.6	71.9	-	-	-	-
Years 1–4 combined	68.5	67.2	-1.2	1.6	-1.7%	0.439	68.2	67.0	-0.5	1.6	-0.8%	0.746
Bice-Boxerman Index based on all visits												
Baseline	29.9	30.9	-	-	-	-	24.4	26.2	-	-	-	-
Years 1–4 combined	26.4	27.9	-0.5	0.7	-1.9%	0.442	24.2	26.0	0.0	0.5	-0.1%	0.954
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	176,046						58,750					

Table G.6 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	203,798						66,750					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	71.3	71.4	-	-	-	-	75.6	75.9	-	-	-	-
Year 1	72.9	72.7	0.3	1.1	-	0.75	77.0	78.2	-0.8	1.5	-	0.581
Year 2	73.9	74.6	-0.6	0.9	-	0.482	77.9	79.4	-1.2	1.4	-	0.395
Year 3	73.6	73.7	0.0	1.0	-	0.979	77.2	78.2	-0.7	1.3	-	0.551
Year 4	74.9	76.2	-1.2	1.2	-	0.322	78.4	80.0	-1.3	1.1	-	0.23
Years 1–4 combined	74.7	75.3	-0.5	0.9	-	0.602	78.0	79.3	-1.0	1.0	-	0.299
Total number of observations (CPC and comparison) across all years: follow-up visit	188,434						102,786					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	31.3	33.5	-	-	-	-	90.6	100.0	-	-	-	-
Year 1	53.0	55.9	-0.6	3.2	-0.9%	0.843	141.2	143.8	6.7	9.5	4.4%	0.484
Year 2	54.1	54.9	1.5	3.0	2.4%	0.618	142.6	137.0	14.9*	8.7	10.8%	0.087
Year 3	59.1	63.7	-2.4	2.4	-3.6%	0.327	144.9	160.6	-6.5	7.9	-4.1%	0.413
Year 4	65.1	64.6	2.8	3.4	4.5%	0.405	156.6	155.0	10.9	11.6	7.6%	0.347
Years 1–4 combined	66.1	68.2	0.4	2.5	1%	0.875	153.9	156.8	6.8	7.0	5%	0.332
Total number of observations (CPC and comparison) across all years: ACSC admissions	778,293						215,730					
Likelihood of 30-day readmission (percentage)												
Baseline	13.3	13.6	-	-	-	-	16.0	16.4	-	-	-	-
Year 1	15.1	15.5	0.0	1.1	-	0.993	19.0	18.5	0.9	1.3	-	0.493
Year 2	14.8	15.2	0.0	1.0	-	0.973	18.4	17.8	1.1	1.2	-	0.389
Year 3	15.2	15.7	-0.1	0.9	-	0.881	18.2	19.0	-0.4	1.2	-	0.728
Year 4	14.6	15.2	-0.3	1.0	-	0.799	18.1	17.9	0.6	1.5	-	0.694
Years 1–4 combined	14.9	15.4	-0.1	0.9	-	0.891	18.2	18.1	0.5	1.2	-	0.652

Table G.6 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	188,502						102,802					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	2.7	3.0	-	-	-	-	5.9	6.5	-	-	-	-
Year 1	2.8	2.8	0.3*	0.1	-	0.089	5.9	5.8	0.8*	0.4	-	0.058
Year 2	3.1	3.1	0.2	0.1	-	0.146	6.1	6.0	0.7	0.6	-	0.233
Year 3	3.3	3.7	-0.2	0.2	-	0.449	6.2	7.3	-0.6	0.6	-	0.349
Year 4	4.1	4.5	-0.2	0.2	-	0.512	7.7	9.3	-1.1	0.8	-	0.201
Years 1–4 combined	3.6	3.9	0.0	0.2	-	0.869	6.6	7.3	0.0	0.5	-	0.939
Total number of observations (CPC and comparison) across all years: ED revisit	778,293						215,730					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.7. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New York

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$544	\$548	-	-	-	-	\$1,231	\$1,212	-	-	-	-
Year 1	\$694	\$712	-\$14	\$21	-2%	0.515	\$1,332	\$1,378	-\$66	\$47	-5%	0.169
Year 2	\$771	\$791	-\$16	\$19	-2%	0.386	\$1,436	\$1,436	-\$19	\$44	-1%	0.658
Year 3	\$839	\$878	-\$35**	\$16	-4%	0.028	\$1,505	\$1,555	-\$70*	\$37	-4%	0.063
Year 4	\$898	\$925	-\$23	\$20	-2%	0.272	\$1,593	\$1,616	-\$42	\$44	-3%	0.35
Years 1–4 combined	\$854	\$883	-\$25	\$17	-3%	0.134	\$1,487	\$1,520	-\$52	\$36	-3%	0.151
Test whether impacts for Years 1–4 are jointly significant	F = 1.492	p-value = 0.206					F = 1.466	p-value = 0.215				
With CPC care management fees												
Baseline	\$543	\$547	-	-	-	-	\$1,231	\$1,212	-	-	-	-
Year 1	\$713	\$711	\$6	\$21	1%	0.789	\$1,359	\$1,378	-\$38	\$47	-3%	0.428
Year 2	\$789	\$791	\$2	\$19	0%	0.922	\$1,464	\$1,436	\$9	\$44	1%	0.84
Year 3	\$853	\$878	-\$22	\$16	-2%	0.178	\$1,526	\$1,555	-\$49	\$37	-3%	0.193
Year 4	\$910	\$924	-\$11	\$20	-1%	0.587	\$1,610	\$1,615	-\$25	\$44	-2%	0.572
Years 1–4 combined	\$869	\$883	-\$10	\$17	-1%	0.561	\$1,510	\$1,520	-\$28	\$36	-2%	0.434
Test whether impacts for Years 1–4 are jointly significant	F = 1.002	p-value = 0.408					F = 1.052	p-value = 0.382				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$186	\$173	-	-	-	-	\$488	\$449	-	-	-	-
Year 1	\$256	\$265	-\$23	\$15	-7%	0.132	\$533	\$565	-\$71**	\$36	-11%	0.05
Year 2	\$289	\$294	-\$19**	\$10	-6%	0.048	\$579	\$564	-\$24	\$24	-4%	0.329
Year 3	\$304	\$317	-\$27***	\$10	-8%	0.007	\$580	\$595	-\$54**	\$24	-8%	0.024
Year 4	\$329	\$332	-\$17	\$12	-5%	0.164	\$635	\$621	-\$25	\$29	-4%	0.379
Years 1–4 combined	\$317	\$326	-\$22**	\$10	-6%	0.023	\$590	\$596	-\$44**	\$22	-7%	0.041

G.37

Table G.7 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$17	\$27	-	-	-	-	\$87	\$101	-	-	-	-
Year 1	\$46	\$51	\$4	\$5	6%	0.41	\$128	\$135	\$7	\$10	5%	0.514
Year 2	\$59	\$70	-\$1	\$5	-1%	0.834	\$151	\$168	-\$3	\$14	-2%	0.811
Year 3	\$73	\$81	\$1	\$4	2%	0.732	\$173	\$187	\$0	\$11	0%	0.971
Year 4	\$79	\$87	\$2	\$5	3%	0.674	\$185	\$197	\$2	\$12	1%	0.874
Years 1–4 combined	\$76	\$84	\$1	\$4	2%	0.78	\$167	\$180	\$1	\$10	0%	0.95
Outpatient												
Baseline	\$85	\$87	-	-	-	-	\$161	\$157	-	-	-	-
Year 1	\$96	\$98	\$0	\$3	0%	0.984	\$159	\$156	\$0	\$7	0%	0.992
Year 2	\$110	\$111	\$1	\$3	1%	0.75	\$179	\$170	\$5	\$7	3%	0.435
Year 3	\$125	\$131	-\$4	\$5	-3%	0.428	\$198	\$195	\$0	\$9	0%	0.97
Year 4	\$137	\$138	\$0	\$5	0%	0.971	\$210	\$206	\$1	\$7	0%	0.943
Years 1–4 combined	\$120	\$123	-\$1	\$3	-1%	0.739	\$184	\$181	\$1	\$6	0%	0.897
Physician												
Baseline	\$226	\$221	-	-	-	-	\$390	\$380	-	-	-	-
Year 1	\$251	\$236	\$10**	\$4	4%	0.01	\$390	\$375	\$6	\$7	1%	0.448
Year 2	\$262	\$252	\$5	\$4	2%	0.218	\$402	\$392	\$1	\$8	0%	0.944
Year 3	\$279	\$271	\$3	\$5	1%	0.593	\$417	\$403	\$4	\$8	1%	0.582
Year 4	\$291	\$284	\$2	\$6	1%	0.761	\$427	\$415	\$3	\$8	1%	0.733
Years 1–4 combined	\$278	\$269	\$4	\$3	2%	0.185	\$410	\$397	\$3	\$6	1%	0.615
Primary care physician												
Baseline	\$33	\$34	-	-	-	-	\$61	\$62	-	-	-	-
Year 1	\$38	\$40	\$0	\$1	-1%	0.674	\$64	\$68	-\$2	\$2	-3%	0.237
Year 2	\$41	\$44	-\$2	\$1	-4%	0.205	\$69	\$73	-\$3	\$3	-4%	0.261
Year 3	\$48	\$51	-\$2	\$1	-4%	0.192	\$77	\$82	-\$4	\$2	-5%	0.118
Year 4	\$51	\$55	-\$2	\$2	-4%	0.137	\$81	\$86	-\$3	\$2	-4%	0.166
Years 1–4 combined	\$47	\$51	-\$2	\$1	-4%	0.135	\$74	\$79	-\$3	\$2	-4%	0.107
Office-based primary care physician												
Baseline	\$19	\$19	-	-	-	-	\$29	\$28	-	-	-	-
Year 1	\$19	\$20	\$0	\$0	-1%	0.507	\$27	\$27	\$0	\$1	-1%	0.635
Year 2	\$19	\$20	-\$1**	\$0	-5%	0.016	\$26	\$27	-\$1**	\$1	-5%	0.034
Year 3	\$20	\$21	-\$1*	\$1	-5%	0.06	\$26	\$27	-\$1*	\$1	-5%	0.072
Year 4	\$20	\$21	-\$1	\$1	-4%	0.174	\$26	\$27	-\$1	\$1	-5%	0.225
Years 1–4 combined	\$20	\$21	-\$1*	\$0	-4%	0.072	\$26	\$27	-\$1	\$1	-4%	0.123

Table G.7 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$117	\$111	-	-	-	-	\$205	\$195	-	-	-	-
Year 1	\$133	\$118	\$10***	\$3	8%	0.002	\$208	\$190	\$8	\$6	4%	0.15
Year 2	\$139	\$126	\$8**	\$3	6%	0.032	\$215	\$199	\$6	\$7	3%	0.384
Year 3	\$145	\$132	\$6	\$5	5%	0.205	\$215	\$197	\$7	\$6	4%	0.228
Year 4	\$151	\$137	\$8	\$5	5%	0.142	\$220	\$202	\$8	\$7	4%	0.296
Years 1–4 combined	\$145	\$131	\$8***	\$3	6%	0.008	\$214	\$197	\$7	\$5	3%	0.121
Office-based specialist												
Baseline	\$27	\$24	-	-	-	-	\$46	\$40	-	-	-	-
Year 1	\$28	\$24	\$1***	\$0	4%	0.005	\$43	\$36	\$1	\$1	1%	0.537
Year 2	\$29	\$26	\$1	\$0	2%	0.223	\$43	\$37	\$0	\$1	0%	0.893
Year 3	\$30	\$26	\$0	\$0	1%	0.348	\$43	\$37	-\$1	\$1	-2%	0.24
Year 4	\$31	\$27	\$0	\$0	1%	0.403	\$43	\$37	-\$1	\$1	-3%	0.189
Years 1–4 combined	\$30	\$26	\$1	\$0	2%	0.132	\$43	\$37	\$0	\$1	-1%	0.581
Home health												
Baseline	\$14	\$20	-	-	-	-	\$55	\$68	-	-	-	-
Year 1	\$21	\$29	-\$2	\$1	-5%	0.177	\$59	\$74	-\$3	\$3	-4%	0.351
Year 2	\$26	\$34	-\$2	\$2	-6%	0.236	\$66	\$80	-\$2	\$4	-2%	0.694
Year 3	\$29	\$42	-\$7***	\$2	-18%	<.001	\$69	\$99	-\$17***	\$5	-19%	<.001
Year 4	\$30	\$44	-\$7***	\$2	-19%	0.002	\$69	\$98	-\$17***	\$5	-20%	0.002
Years 1–4 combined	\$31	\$43	-\$5***	\$1	-14%	0.001	\$69	\$92	-\$10***	\$3	-12%	0.006
Hospice ^a												
Baseline	-\$2	-\$1	-	-	-	-	\$4	\$5	-	-	-	-
Year 1	\$7	\$11	-\$2	\$4	-17%	0.563	\$24	\$29	-\$4	\$9	-13%	0.647
Year 2	\$11	\$12	\$0	\$4	-1%	0.965	\$28	\$26	\$3	\$6	12%	0.557
Year 3	\$12	\$15	-\$2	\$4	-10%	0.691	\$31	\$36	-\$4	\$8	-10%	0.665
Year 4	\$14	\$19	-\$4	\$4	-23%	0.33	\$31	\$41	-\$9	\$9	-22%	0.307
Years 1–4 combined	\$14	\$17	-\$2	\$4	-14%	0.572	\$31	\$36	-\$3	\$8	-10%	0.656
DME												
Baseline	\$17	\$21	-	-	-	-	\$46	\$52	-	-	-	-
Year 1	\$18	\$21	\$0	\$1	-1%	0.855	\$39	\$45	\$0	\$2	0%	0.938
Year 2	\$15	\$18	\$0	\$1	-2%	0.806	\$31	\$36	\$0	\$2	1%	0.818
Year 3	\$17	\$21	\$0	\$1	-2%	0.7	\$36	\$40	\$1	\$2	4%	0.587
Year 4	\$18	\$20	\$1	\$1	8%	0.273	\$36	\$37	\$4*	\$3	14%	0.091
Years 1–4 combined	\$18	\$21	\$0	\$1	1%	0.873	\$36	\$39	\$2	\$1	4%	0.308

Table G.7 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	211	193	-	-	-	-	511	462	-	-	-	-
Year 1	260	258	-17**	7	-5%	0.013	553	557	-53***	18	-8%	0.003
Year 2	269	269	-19***	7	-6%	0.004	551	541	-39*	20	-6%	0.05
Year 3	297	294	-15**	6	-4%	0.014	600	579	-28	19	-4%	0.143
Year 4	317	304	-5	7	-2%	0.426	631	598	-15	18	-2%	0.416
Years 1–4 combined	311	307	-15***	6	-5%	0.005	599	585	-35**	16	-6%	0.026
Total ED visits												
Baseline	504	492	-	-	-	-	1,062	1,028	-	-	-	-
Year 1	586	582	-7	15	-1%	0.623	1,137	1,103	-1	41	0%	0.983
Year 2	634	611	11	13	2%	0.406	1,203	1,122	46	42	4%	0.273
Year 3	677	688	-23**	12	-3%	0.048	1,282	1,246	1	41	0%	0.984
Year 4	690	713	-34**	14	-5%	0.014	1,283	1,278	-29	40	-2%	0.459
Years 1–4 combined	687	691	-17*	10	-2%	0.099	1,238	1,200	3	36	0%	0.932
Outpatient ED visits												
Baseline	366	360	-	-	-	-	682	667	-	-	-	-
Year 1	398	387	6	14	1%	0.689	692	639	38	32	6%	0.239
Year 2	432	409	18	12	4%	0.122	749	676	58*	32	8%	0.067
Year 3	452	459	-14	9	-3%	0.128	783	761	7	26	1%	0.799
Year 4	448	474	-32***	11	-7%	0.003	756	769	-28	29	-4%	0.324
Years 1–4 combined	447	450	-8	8	-2%	0.314	740	707	18	25	2%	0.462
Observation stays												
Baseline	26	28	-	-	-	-	56	60	-	-	-	-
Year 1	35	38	-1	2	-3%	0.555	68	69	3	6	5%	0.541
Year 2	47	44	5	4	10%	0.203	88	82	10	9	12%	0.263
Year 3	50	52	0	3	-1%	0.903	96	94	6	7	6%	0.419
Year 4	51	54	-1	3	-2%	0.676	95	97	2	7	2%	0.782
Years 1–4 combined	50	51	0	2	1%	0.907	89	88	5	6	6%	0.357
Primary care visits												
Baseline	6,830	6,669	-	-	-	-	10,769	10,717	-	-	-	-
Year 1	7,295	7,262	-128	105	-2%	0.226	10,938	11,343	-457**	232	-4%	0.049
Year 2	7,515	7,680	-325**	149	-4%	0.029	11,307	11,848	-594*	345	-5%	0.086
Year 3	7,821	8,156	-496***	181	-6%	0.006	11,780	12,797	-1,069***	373	-8%	0.004
Year 4	8,289	8,582	-454**	208	-5%	0.029	12,405	13,193	-839**	366	-6%	0.022
Years 1–4 combined	8,176	8,411	-400***	154	-5%	0.009	11,804	12,527	-770***	288	-6%	0.007

Table G.7 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	4,016	4,003	-	-	-	-	5,710	5,528	-	-	-	-
Year 1	4,072	4,096	-37	68	-1%	0.585	5,408	5,235	-9	144	0%	0.952
Year 2	4,000	4,089	-101	81	-2%	0.209	5,177	5,118	-123	139	-2%	0.375
Year 3	4,035	4,140	-118	97	-3%	0.222	5,127	5,087	-142	175	-3%	0.418
Year 4	4,064	4,194	-144	117	-3%	0.219	5,023	5,014	-172	220	-3%	0.433
Years 1–4 combined	4,113	4,207	-107	85	-3%	0.211	5,170	5,097	-108	156	-2%	0.488
Specialist visits												
Baseline	14,578	13,123	-	-	-	-	25,594	22,061	-	-	-	-
Year 1	15,423	13,630	338*	201	2%	0.092	24,753	21,442	-223	362	-1%	0.538
Year 2	15,963	14,427	82	212	1%	0.698	24,757	21,682	-459	368	-2%	0.213
Year 3	16,407	14,896	56	196	0%	0.773	24,823	22,047	-757*	413	-3%	0.067
Year 4	16,967	15,327	186	188	1%	0.324	24,998	22,062	-598	422	-2%	0.157
Years 1–4 combined	16,981	15,317	145	174	1%	0.405	25,013	21,971	-516	321	-2%	0.108
Office-based specialist visits												
Baseline	5,304	4,468	-	-	-	-	8,933	7,208	-	-	-	-
Year 1	5,432	4,467	128*	70	2%	0.068	8,309	6,560	23	182	0%	0.899
Year 2	5,467	4,632	-1	90	0%	0.992	8,039	6,467	-153	193	-2%	0.428
Year 3	5,550	4,761	-47	91	-1%	0.609	7,817	6,486	-394**	190	-5%	0.038
Year 4	5,670	4,903	-69	97	-1%	0.475	7,699	6,484	-510**	206	-6%	0.013
Years 1–4 combined	5,690	4,841	-10	81	0%	0.901	7,932	6,465	-252	177	-3%	0.156
Total number of observations (CPC and comparison) across all years ^b	638,176						181,345					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in Year 1, 2, or 3, compared with baseline relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include expenditures on primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.7 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME= durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.8. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for New York

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	92.1	91.6	-	-	-	-	89.6	89.5	-	-	-	-
Year 1	93.3	91.5	1.2	1.1	-	0.282	91.8	90.0	1.7	1.9	-	0.359
Year 2	93.0	93.6	-1.1	0.8	-	0.192	91.6	92.6	-1.1	1.6	-	0.481
Year 3	94.3	93.4	0.3	0.9	-	0.735	92.8	92.8	-0.1	1.6	-	0.939
Year 4	94.0	93.2	0.3	0.9	-	0.784	93.3	92.1	1.0	2.2	-	0.635
Years 1–4 combined	93.5	92.8	0.1	0.8	-	0.867	92.5	92.1	0.3	1.5	-	0.827
Among patients with diabetes—eye exam												
Baseline	58.4	62.1	-	-	-	-	58.8	64.3	-	-	-	-
Year 1	59.3	62.4	0.5	1.9	-	0.792	60.3	66.1	-0.2	2.3	-	0.916
Year 2	60.1	62.3	1.5	1.5	-	0.317	60.8	62.9	3.5*	2.1	-	0.095
Year 3	61.6	63.8	1.5	2.4	-	0.532	60.8	68.3	-1.9	2.6	-	0.454
Year 4	61.7	64.0	1.4	2.4	-	0.565	62.5	65.3	2.7	2.6	-	0.302
Years 1–4 combined	61.4	63.8	1.2	1.6	-	0.453	62.0	66.5	1.0	1.8	-	0.577
Among patients with diabetes—urine protein test												
Baseline	57.1	56.1	-	-	-	-	60.8	62.1	-	-	-	-
Year 1	59.5	57.1	1.4	1.9	-	0.473	63.0	59.1	5.2**	2.6	-	0.047
Year 2	62.3	59.0	2.3	2.4	-	0.339	63.6	61.0	3.8	2.8	-	0.167
Year 3	66.8	60.6	5.1	4.3	-	0.231	72.6	71.6	2.3	4.1	-	0.584
Year 4	68.6	62.1	5.4	4.3	-	0.202	76.1	75.6	1.8	4.2	-	0.668
Years 1–4 combined	65.3	60.7	3.6	2.8	-	0.19	68.8	67.0	3.1	2.7	-	0.261
Among patients with diabetes—all three tests performed												
Baseline	36.1	37.0	-	-	-	-	37.8	41.3	-	-	-	-
Year 1	37.7	38.1	0.4	1.7	-	0.816	40.0	39.3	4.2**	2.1	-	0.043
Year 2	40.1	38.2	2.7	2.0	-	0.164	41.3	39.1	5.7**	2.8	-	0.046
Year 3	42.0	39.2	3.7	3.1	-	0.238	43.8	46.7	0.5	3.3	-	0.878
Year 4	42.5	39.8	3.5	3.1	-	0.257	47.0	49.2	1.2	3.6	-	0.742
Years 1–4 combined	41.4	39.6	2.7	2.1	-	0.194	43.6	44.1	2.9	2.3	-	0.214

Table G.8 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	4.1	4.5	-	-	-	-	4.8	5.2	-	-	-	-
Year 1	3.3	4.3	-0.6	0.7	-	0.439	3.5	4.2	-0.4	1.2	-	0.763
Year 2	3.2	3.4	0.2	0.8	-	0.754	3.7	3.7	0.4	1.3	-	0.745
Year 3	1.8	1.9	0.3	0.6	-	0.611	1.8	1.2	1.0	1.1	-	0.338
Year 4	1.7	2.1	0.0	0.6	-	0.937	1.5	2.2	-0.3	1.6	-	0.863
Years 1–4 combined	2.5	2.9	0.1	0.6	-	0.928	2.5	2.7	0.2	1.1	-	0.834
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	66,493						24,156					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	79.8	78.8	-	-	-	-	76.7	75.0	-	-	-	-
Years 1–4 combined	68.3	66.0	1.3	1.4	1.9%	0.375	67.1	64.5	0.9	1.4	1.3%	0.539
Percentage of all visits at attributed practice												
Baseline	42.0	45.3	-	-	-	-	35.2	39.1	-	-	-	-
Years 1–4 combined	33.6	36.7	0.1	1.0	0.3%	0.919	30.0	33.7	0.3	0.9	0.9%	0.775
Bice-Boxerman Index based on PCP visits												
Baseline	72.1	72.4	-	-	-	-	69.1	69.0	-	-	-	-
Years 1–4 combined	63.3	62.1	1.5	1.6	2.5%	0.337	62.9	61.3	1.5	1.5	2.4%	0.307
Bice-Boxerman Index based on all visits												
Baseline	31.0	33.0	-	-	-	-	25.3	27.9	-	-	-	-
Years 1–4 combined	26.7	28.4	0.3	0.7	1.2%	0.645	24.2	26.2	0.6	0.6	2.3%	0.361
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	150,042						51,614					

Table G.8 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	168,006						56,992					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	68.2	69.0	-	-	-	-	72.0	73.3	-	-	-	-
Year 1	69.0	68.3	1.5	1.3	-	0.245	72.2	71.5	2.0	1.3	-	0.124
Year 2	70.1	71.4	-0.5	1.2	-	0.694	73.3	74.6	-0.1	1.3	-	0.962
Year 3	71.6	72.6	-0.2	1.3	-	0.873	75.1	76.9	-0.5	1.5	-	0.721
Year 4	72.0	73.8	-1.1	1.1	-	0.337	75.1	76.7	-0.3	1.1	-	0.75
Years 1–4 combined	71.3	72.4	-0.2	1.0	-	0.798	74.2	75.3	0.2	0.9	-	0.822
Total number of observations (CPC and comparison) across all years: follow-up visit	161,786						89,254					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	37.2	35.9	-	-	-	-	107.9	103.3	-	-	-	-
Year 1	56.0	57.4	-2.7	2.9	-3.6%	0.358	148.9	150.2	-6.0	7.9	-3.5%	0.45
Year 2	57.7	57.6	-1.2	2.9	-1.7%	0.684	145.3	141.5	-0.8	9.4	-0.5%	0.936
Year 3	64.8	68.2	-4.7*	2.7	-6.2%	0.083	160.5	160.3	-4.4	8.8	-2.6%	0.613
Year 4	71.5	74.6	-4.4	2.8	-5.8%	0.112	170.0	174.1	-8.7	7.4	-4.9%	0.242
Years 1–4 combined	71.1	73.7	-4.0*	2.3	-5%	0.086	163.6	164.3	-5.5	6.4	-3%	0.395
Total number of observations (CPC and comparison) across all years: ACSC admissions	638,176						181,345					
Likelihood of 30-day readmission (percentage)												
Baseline	14.7	13.8	-	-	-	-	17.7	16.7	-	-	-	-
Year 1	16.5	16.5	-0.9	0.9	-	0.328	20.4	20.4	-0.9	1.2	-	0.448
Year 2	16.4	15.5	0.0	1.0	-	0.964	20.1	18.1	1.0	1.4	-	0.487
Year 3	16.6	16.4	-0.7	0.9	-	0.414	20.5	19.7	-0.2	1.4	-	0.909
Year 4	16.6	15.9	-0.2	0.9	-	0.8	20.2	18.6	0.6	1.3	-	0.64
Years 1–4 combined	16.3	15.9	-0.5	0.8	-	0.586	19.8	18.7	0.1	1.1	-	0.896

Table G.8 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	161,849						89,275					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	3.9	3.6	-	-	-	-	7.8	6.9	-	-	-	-
Year 1	4.2	3.8	0.3	0.3	-	0.194	8.3	7.2	0.5	0.6	-	0.401
Year 2	4.6	4.5	-0.1	0.3	-	0.655	8.5	8.5	-0.6	0.8	-	0.439
Year 3	5.5	5.6	-0.3	0.2	-	0.2	10.2	9.8	-0.2	0.6	-	0.725
Year 4	5.5	5.7	-0.3	0.2	-	0.196	10.2	9.9	-0.2	0.7	-	0.718
Years 1–4 combined	4.9	4.8	0.0	0.2	-	0.939	8.8	8.2	0.0	0.5	-	0.962
Total number of observations (CPC and comparison) across all years: ED revisit	638,176						181,345					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.9. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Ohio/Kentucky

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$517	\$550	-	-	-	-	\$1,244	\$1,275	-	-	-	-
Year 1	\$714	\$724	\$23	\$15	3%	0.12	\$1,443	\$1,408	\$66**	\$33	5%	0.048
Year 2	\$764	\$764	\$32	\$23	4%	0.158	\$1,487	\$1,427	\$92**	\$45	6%	0.043
Year 3	\$839	\$836	\$36	\$25	4%	0.151	\$1,605	\$1,543	\$94**	\$46	6%	0.044
Year 4	\$898	\$922	\$9	\$20	1%	0.652	\$1,694	\$1,585	\$141***	\$46	9%	0.003
Years 1–4 combined	\$868	\$878	\$23	\$17	3%	0.181	\$1,580	\$1,517	\$94***	\$33	6%	0.005
Test whether impacts for Years 1–4 are jointly significant	F = 1.163	p-value = 0.328					F = 2.44	p-value = 0.048				
With CPC care management fees												
Baseline	\$517	\$550	-	-	-	-	\$1,244	\$1,276	-	-	-	-
Year 1	\$733	\$723	\$42***	\$15	5%	0.004	\$1,471	\$1,408	\$95***	\$33	7%	0.005
Year 2	\$781	\$764	\$50**	\$23	6%	0.028	\$1,516	\$1,427	\$121***	\$45	8%	0.008
Year 3	\$852	\$835	\$50**	\$25	6%	0.047	\$1,627	\$1,543	\$116**	\$46	8%	0.013
Year 4	\$911	\$922	\$22	\$20	2%	0.291	\$1,713	\$1,585	\$160***	\$46	10%	0.001
Years 1–4 combined	\$883	\$878	\$39**	\$17	5%	0.026	\$1,605	\$1,517	\$119***	\$33	8%	<.001
Test whether impacts for Years 1–4 are jointly significant	F = 2.638	p-value = 0.035					F = 3.487	p-value = 0.009				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$188	\$202	-	-	-	-	\$500	\$516	-	-	-	-
Year 1	\$287	\$281	\$20**	\$10	7%	0.049	\$606	\$571	\$51**	\$22	9%	0.021
Year 2	\$288	\$281	\$21	\$15	7%	0.15	\$590	\$547	\$59**	\$27	11%	0.033
Year 3	\$315	\$306	\$23	\$16	8%	0.144	\$631	\$596	\$51*	\$29	9%	0.083
Year 4	\$336	\$346	\$4	\$14	1%	0.763	\$672	\$621	\$67**	\$26	11%	0.01
Years 1–4 combined	\$331	\$329	\$16	\$11	5%	0.143	\$634	\$594	\$56***	\$19	10%	0.004

G.47

Table G.9 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$14	\$14	-	-	-	-	\$76	\$76	-	-	-	-
Year 1	\$46	\$54	-\$9**	\$4	-11%	0.021	\$128	\$148	-\$19*	\$10	-12%	0.051
Year 2	\$57	\$59	-\$2	\$4	-2%	0.668	\$147	\$145	\$1	\$9	1%	0.881
Year 3	\$68	\$69	-\$1	\$4	-1%	0.782	\$167	\$171	-\$3	\$10	-2%	0.763
Year 4	\$71	\$75	-\$4	\$4	-6%	0.272	\$172	\$171	\$2	\$10	1%	0.867
Years 1–4 combined	\$72	\$76	-\$4	\$3	-5%	0.16	\$161	\$167	-\$6	\$7	-3%	0.421
Outpatient												
Baseline	\$99	\$118	-	-	-	-	\$187	\$220	-	-	-	-
Year 1	\$113	\$130	\$2	\$4	2%	0.526	\$193	\$214	\$12*	\$7	7%	0.097
Year 2	\$128	\$145	\$2	\$5	2%	0.705	\$216	\$240	\$9	\$9	5%	0.293
Year 3	\$136	\$156	-\$1	\$5	-1%	0.859	\$221	\$246	\$8	\$9	4%	0.367
Year 4	\$150	\$172	-\$3	\$4	-2%	0.486	\$239	\$250	\$22*	\$12	10%	0.071
Years 1–4 combined	\$136	\$156	\$0	\$4	0%	0.909	\$215	\$236	\$12	\$8	6%	0.108
Physician												
Baseline	\$182	\$184	-	-	-	-	\$338	\$334	-	-	-	-
Year 1	\$208	\$202	\$8**	\$3	4%	0.025	\$348	\$321	\$23***	\$8	7%	0.005
Year 2	\$215	\$208	\$9**	\$4	4%	0.044	\$343	\$318	\$21**	\$9	6%	0.015
Year 3	\$229	\$220	\$11**	\$5	5%	0.022	\$363	\$336	\$23**	\$9	7%	0.015
Year 4	\$244	\$232	\$14***	\$5	6%	0.006	\$377	\$335	\$38***	\$10	11%	<.001
Years 1–4 combined	\$234	\$225	\$10***	\$4	5%	0.008	\$359	\$329	\$25***	\$8	8%	0.001
Primary care physician												
Baseline	\$30	\$30	-	-	-	-	\$57	\$57	-	-	-	-
Year 1	\$36	\$37	-\$1	\$1	-2%	0.195	\$64	\$64	-\$1	\$2	-2%	0.49
Year 2	\$39	\$39	\$0	\$1	-1%	0.745	\$66	\$65	\$1	\$2	1%	0.558
Year 3	\$45	\$45	\$0	\$1	0%	0.846	\$74	\$73	\$0	\$2	0%	0.89
Year 4	\$48	\$48	\$1	\$1	1%	0.615	\$79	\$74	\$5**	\$2	7%	0.025
Years 1–4 combined	\$45	\$45	\$0	\$1	0%	0.819	\$72	\$70	\$1	\$1	1%	0.477
Office-based primary care physician												
Baseline	\$18	\$18	-	-	-	-	\$28	\$26	-	-	-	-
Year 1	\$19	\$19	\$0	\$0	0%	0.761	\$27	\$25	\$0	\$0	-1%	0.607
Year 2	\$19	\$19	\$0	\$0	-1%	0.457	\$26	\$25	-\$1	\$1	-3%	0.212
Year 3	\$19	\$19	\$0	\$0	-1%	0.789	\$26	\$25	-\$1	\$1	-2%	0.475
Year 4	\$20	\$18	\$1	\$1	3%	0.24	\$26	\$24	\$0	\$1	1%	0.74
Years 1–4 combined	\$20	\$19	\$0	\$0	0%	0.864	\$26	\$25	\$0	\$1	-1%	0.579

Table G.9 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$95	\$96	-	-	-	-	\$182	\$178	-	-	-	-
Year 1	\$110	\$104	\$8***	\$3	7%	0.008	\$186	\$163	\$19***	\$7	12%	0.006
Year 2	\$112	\$104	\$9***	\$4	9%	0.009	\$176	\$153	\$19***	\$7	12%	0.007
Year 3	\$115	\$106	\$10***	\$4	9%	0.009	\$178	\$154	\$20***	\$8	13%	0.009
Year 4	\$123	\$114	\$10**	\$4	9%	0.013	\$185	\$157	\$23***	\$8	15%	0.004
Years 1–4 combined	\$119	\$111	\$9***	\$3	8%	0.004	\$181	\$157	\$20***	\$6	13%	0.002
Office-based specialist												
Baseline	\$21	\$20	-	-	-	-	\$37	\$35	-	-	-	-
Year 1	\$22	\$20	\$1***	\$0	3%	0.001	\$35	\$32	\$1**	\$0	3%	0.019
Year 2	\$23	\$21	\$1**	\$0	3%	0.034	\$34	\$32	\$1	\$1	2%	0.35
Year 3	\$23	\$21	\$1**	\$0	4%	0.014	\$34	\$31	\$1*	\$1	3%	0.07
Year 4	\$24	\$22	\$1**	\$0	3%	0.047	\$34	\$30	\$1	\$1	4%	0.136
Years 1–4 combined	\$23	\$22	\$1***	\$0	3%	0.007	\$34	\$31	\$1**	\$1	3%	0.047
Home health												
Baseline	\$22	\$18	-	-	-	-	\$83	\$69	-	-	-	-
Year 1	\$32	\$24	\$4**	\$2	9%	0.038	\$89	\$71	\$4	\$4	5%	0.293
Year 2	\$41	\$31	\$6***	\$2	13%	0.002	\$104	\$82	\$8*	\$4	8%	0.07
Year 3	\$49	\$40	\$5*	\$2	9%	0.054	\$120	\$98	\$8	\$7	7%	0.224
Year 4	\$53	\$46	\$3	\$2	5%	0.231	\$127	\$100	\$13**	\$5	11%	0.02
Years 1–4 combined	\$51	\$43	\$4**	\$2	9%	0.015	\$114	\$92	\$8*	\$4	7%	0.06
Hospice ^a												
Baseline	-\$6	-\$6	-	-	-	-	\$6	\$5	-	-	-	-
Year 1	\$9	\$11	-\$3	\$2	-13%	0.169	\$35	\$36	-\$2	\$5	-5%	0.659
Year 2	\$17	\$20	-\$4	\$3	-13%	0.158	\$50	\$53	-\$4	\$6	-6%	0.533
Year 3	\$24	\$24	\$1	\$2	2%	0.8	\$66	\$57	\$8	\$6	13%	0.214
Year 4	\$28	\$29	-\$2	\$2	-6%	0.417	\$70	\$72	-\$2	\$7	-3%	0.741
Years 1–4 combined	\$25	\$27	-\$2	\$2	-7%	0.228	\$59	\$58	-\$1	\$5	-1%	0.909
DME												
Baseline	\$20	\$22	-	-	-	-	\$54	\$55	-	-	-	-
Year 1	\$20	\$22	\$0	\$1	-2%	0.795	\$44	\$47	-\$2	\$3	-4%	0.536
Year 2	\$17	\$20	-\$1	\$2	-4%	0.717	\$37	\$42	-\$4	\$7	-9%	0.584
Year 3	\$16	\$20	-\$2	\$2	-9%	0.251	\$37	\$40	-\$2	\$4	-6%	0.564
Year 4	\$17	\$21	-\$2	\$2	-11%	0.254	\$36	\$36	\$2	\$4	5%	0.614
Years 1–4 combined	\$19	\$22	-\$1	\$2	-7%	0.395	\$39	\$41	-\$1	\$3	-4%	0.675

Table G.9 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	237	254	-	-	-	-	580	605	-	-	-	-
Year 1	299	304	12	9	3%	0.168	635	641	19	19	3%	0.301
Year 2	296	305	8	12	3%	0.473	613	611	27	27	4%	0.324
Year 3	323	329	12	14	4%	0.389	671	670	26	29	4%	0.365
Year 4	338	352	3	10	1%	0.73	689	667	48**	23	8%	0.038
Years 1–4 combined	342	352	9	10	3%	0.381	669	665	30	19	5%	0.128
Total ED visits												
Baseline	569	568	-	-	-	-	1,211	1,168	-	-	-	-
Year 1	665	651	14	14	2%	0.294	1,287	1,257	-14	34	-1%	0.693
Year 2	705	712	-8	14	-1%	0.551	1,346	1,319	-17	34	-1%	0.625
Year 3	752	777	-25	16	-3%	0.106	1,443	1,440	-41	33	-3%	0.219
Year 4	775	812	-37**	17	-5%	0.033	1,491	1,428	19	43	1%	0.655
Years 1–4 combined	780	797	-17	13	-2%	0.19	1,415	1,387	-16	30	-1%	0.589
Outpatient ED visits												
Baseline	418	419	-	-	-	-	791	767	-	-	-	-
Year 1	456	447	11	11	2%	0.34	791	783	-17	26	-2%	0.524
Year 2	492	504	-10	12	-2%	0.384	862	861	-24	27	-3%	0.37
Year 3	512	542	-29**	13	-5%	0.029	902	917	-39	26	-4%	0.124
Year 4	526	560	-33**	13	-6%	0.014	923	907	-8	29	-1%	0.79
Years 1–4 combined	525	544	-18*	11	-3%	0.086	876	875	-24	23	-3%	0.296
Observation stays												
Baseline	37	47	-	-	-	-	78	97	-	-	-	-
Year 1	49	53	6**	3	12%	0.031	98	104	14**	6	16%	0.032
Year 2	66	73	3	3	4%	0.263	128	139	9	10	7%	0.411
Year 3	63	75	-3	5	-4%	0.539	115	146	-11	10	-9%	0.261
Year 4	65	80	-5	4	-7%	0.278	119	145	-7	11	-6%	0.532
Years 1–4 combined	65	76	0	3	0%	0.977	117	135	1	7	1%	0.847
Primary care visits												
Baseline	5,902	6,156	-	-	-	-	9,713	9,911	-	-	-	-
Year 1	6,581	6,823	11	103	0%	0.912	10,545	10,476	267	221	3%	0.227
Year 2	6,870	7,015	109	117	2%	0.35	10,807	10,751	254	246	2%	0.303
Year 3	7,298	7,436	115	128	2%	0.37	11,557	11,600	156	266	1%	0.559
Year 4	7,641	7,635	260	175	4%	0.136	12,171	11,636	732**	339	6%	0.031
Years 1–4 combined	7,520	7,657	132	125	2%	0.291	11,427	11,296	330	233	3%	0.157

Table G.9 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	3,811	3,937	-	-	-	-	5,454	5,358	-	-	-	-
Year 1	3,893	4,061	-42	51	-1%	0.409	5,234	5,210	-71	97	-1%	0.461
Year 2	3,834	4,014	-54	67	-1%	0.417	5,004	5,053	-144	101	-3%	0.153
Year 3	3,898	4,019	4	77	0%	0.956	5,026	5,034	-104	135	-2%	0.442
Year 4	3,931	3,944	113	109	3%	0.302	4,953	4,810	47	170	1%	0.78
Years 1–4 combined	3,961	4,077	11	67	0%	0.874	5,048	5,019	-67	108	-1%	0.535
Specialist visits												
Baseline	11,805	12,282	-	-	-	-	21,217	21,964	-	-	-	-
Year 1	12,805	12,928	354*	214	3%	0.099	21,279	20,907	1,119***	399	5%	0.005
Year 2	13,287	13,137	627**	266	5%	0.018	21,279	20,814	1,212***	439	6%	0.006
Year 3	13,662	13,551	587**	284	4%	0.039	21,608	21,279	1,075**	432	5%	0.013
Year 4	14,035	14,235	277	227	2%	0.223	21,637	20,964	1,420***	441	7%	0.001
Years 1–4 combined	14,211	14,239	475**	234	4%	0.043	21,600	21,145	1,207***	367	6%	0.001
Office-based specialist visits												
Baseline	4,202	4,132	-	-	-	-	7,084	6,872	-	-	-	-
Year 1	4,308	4,127	112***	41	3%	0.007	6,608	6,323	73	88	1%	0.406
Year 2	4,374	4,202	102*	61	2%	0.094	6,435	6,234	-11	114	0%	0.921
Year 3	4,391	4,195	126*	67	3%	0.057	6,305	6,017	76	112	1%	0.497
Year 4	4,485	4,344	72	66	2%	0.275	6,147	5,872	62	155	1%	0.687
Years 1–4 combined	4,545	4,369	104*	54	2%	0.055	6,343	6,079	55	97	1%	0.573
Total number of observations (CPC and comparison) across all years ^b	840,655						231,891					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in Year 1, 2, or 3, compared with baseline relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include expenditures on primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.9 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME= durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.10. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Ohio/Kentucky

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	92.8	90.3	-	-	-	-	90.4	87.1	-	-	-	-
Year 1	94.2	92.4	-0.6	0.9	-	0.473	92.9	89.5	0.1	1.1	-	0.926
Year 2	95.5	93.1	-0.1	1.1	-	0.917	94.9	92.1	-0.4	1.3	-	0.762
Year 3	96.0	93.6	0.0	1.2	-	0.993	95.7	92.8	-0.4	1.4	-	0.782
Year 4	95.2	93.3	-0.6	0.7	-	0.337	94.5	90.8	0.4	1.6	-	0.802
Years 1–4 combined	95.2	93.0	-0.3	0.9	-	0.692	94.6	91.5	-0.1	0.9	-	0.91
Among patients with diabetes—eye exam												
Baseline	51.5	51.0	-	-	-	-	50.5	50.0	-	-	-	-
Year 1	53.9	52.2	1.2	1.3	-	0.36	53.7	51.0	2.2	2.4	-	0.369
Year 2	53.4	52.7	0.3	2.0	-	0.891	52.4	52.6	-0.8	2.8	-	0.786
Year 3	61.2	60.4	0.3	2.8	-	0.915	60.4	58.7	1.2	3.4	-	0.736
Year 4	63.0	62.4	0.1	3.4	-	0.971	62.1	60.9	0.7	3.9	-	0.867
Years 1–4 combined	58.6	57.9	0.4	2.0	-	0.861	57.6	56.5	0.6	2.2	-	0.792
Among patients with diabetes—urine protein test												
Baseline	63.1	61.9	-	-	-	-	67.8	67.4	-	-	-	-
Year 1	71.1	69.7	0.3	2.3	-	0.91	75.6	72.0	3.3	2.6	-	0.199
Year 2	74.4	69.0	4.1	3.3	-	0.214	77.3	73.6	3.4	2.6	-	0.19
Year 3	67.5	67.5	-1.2	3.7	-	0.749	78.2	78.5	-0.6	4.2	-	0.877
Year 4	67.5	66.7	-0.5	3.9	-	0.905	79.4	80.1	-1.0	3.1	-	0.751
Years 1–4 combined	71.1	69.2	0.7	2.8	-	0.809	77.8	76.2	1.4	2.5	-	0.586
Among patients with diabetes—all three tests performed												
Baseline	34.8	34.5	-	-	-	-	35.3	35.6	-	-	-	-
Year 1	40.7	38.1	2.3	1.7	-	0.177	42.4	38.5	4.3	2.6	-	0.105
Year 2	41.7	38.4	3.0	2.8	-	0.285	41.9	39.5	2.7	3.4	-	0.421
Year 3	41.1	41.1	-0.2	2.3	-	0.927	47.1	43.9	3.5	2.9	-	0.226
Year 4	41.2	41.1	-0.2	2.1	-	0.933	48.5	48.0	0.8	3.0	-	0.793
Years 1–4 combined	42.1	40.6	1.2	1.7	-	0.5	45.5	43.1	2.8	2.1	-	0.183

Table G.10 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	4.0	5.7	-	-	-	-	4.8	6.7	-	-	-	-
Year 1	3.2	3.9	0.9	0.9	-	0.292	3.6	5.9	-0.4	1.1	-	0.69
Year 2	2.3	3.6	0.3	0.7	-	0.68	2.4	4.0	0.2	0.7	-	0.745
Year 3	1.2	1.7	1.2	1.0	-	0.248	1.2	1.4	1.7	1.1	-	0.135
Year 4	1.5	1.6	1.5	0.9	-	0.112	1.2	2.2	0.9	0.8	-	0.257
Years 1–4 combined	2.0	2.7	1.0	0.8	-	0.255	2.1	3.3	0.6	0.8	-	0.474
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	106,096						37,443					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	84.4	79.4	-	-	-	-	81.4	74.5	-	-	-	-
Years 1–4 combined	70.3	69.1	-3.8**	1.9	-5.2%	0.043	69.0	65.3	-3.2	2.0	-4.4%	0.115
Percentage of all visits at attributed practice												
Baseline	46.6	45.9	-	-	-	-	39.4	38.1	-	-	-	-
Years 1–4 combined	37.3	38.4	-1.8	1.1	-4.5%	0.125	33.8	33.3	-0.8	1.2	-2.4%	0.472
Bice-Boxerman Index based on PCP visits												
Baseline	78.0	73.7	-	-	-	-	74.1	69.0	-	-	-	-
Years 1–4 combined	66.0	67.0	-5.3***	1.8	-7.4%	0.004	64.6	64.3	-4.9***	1.9	-7.0%	0.009
Bice-Boxerman Index based on all visits												
Baseline	34.2	34.5	-	-	-	-	27.5	27.8	-	-	-	-
Years 1–4 combined	28.8	30.9	-1.8**	0.8	-6.0%	0.026	25.5	26.8	-1.0	0.8	-3.7%	0.217
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	207,636						70,518					

Table G.10 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	230,500						77,150					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	61.3	60.2	-	-	-	-	66.0	64.7	-	-	-	-
Year 1	64.0	64.7	-1.8	1.4	-	0.202	68.8	68.6	-1.0	1.3	-	0.405
Year 2	67.4	66.4	-0.1	1.8	-	0.976	71.6	69.3	1.0	1.7	-	0.556
Year 3	68.3	67.4	-0.2	1.4	-	0.881	72.8	71.2	0.3	1.4	-	0.856
Year 4	69.9	69.6	-0.8	1.4	-	0.574	74.3	73.3	-0.3	1.6	-	0.863
Years 1–4 combined	68.5	68.1	-0.7	1.3	-	0.56	72.0	70.8	-0.1	1.2	-	0.948
Total number of observations (CPC and comparison) across all years: follow-up visit	242,175						129,710					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	44.8	44.4	-	-	-	-	132.1	132.3	-	-	-	-
Year 1	68.0	62.6	4.9**	2.4	5.8%	0.042	181.1	162.8	18.5**	8.4	10.3%	0.028
Year 2	65.4	65.3	-0.4	2.5	-0.5%	0.881	165.8	157.5	8.6	8.0	5.1%	0.283
Year 3	73.8	70.4	3.0	2.5	3.9%	0.226	181.1	168.0	13.4	8.3	7.7%	0.107
Year 4	77.0	77.2	-0.6	2.5	-0.7%	0.826	190.0	185.7	4.5	8.2	2.5%	0.581
Years 1–4 combined	81.2	79.0	1.8	2.0	2.2%	0.366	187.9	176.4	11.8*	6.5	6.7%	0.067
Total number of observations (CPC and comparison) across all years: ACSC admissions	840,655						231,891					
Likelihood of 30-day readmission (percentage)												
Baseline	13.8	14.0	-	-	-	-	16.8	17.4	-	-	-	-
Year 1	15.4	16.8	-1.1	0.8	-	0.158	19.0	20.4	-0.8	1.1	-	0.456
Year 2	15.1	14.7	0.7	0.6	-	0.294	18.1	18.5	0.2	0.8	-	0.799
Year 3	15.2	15.8	-0.3	0.9	-	0.739	18.9	18.8	0.7	1.1	-	0.509
Year 4	16.1	16.4	-0.1	0.7	-	0.921	19.5	20.4	-0.3	1.1	-	0.777
Years 1–4 combined	15.8	16.2	-0.2	0.6	-	0.744	19.0	19.7	-0.1	0.7	-	0.908

Table G.10 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	242,258						129,746					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	4.1	4.1	-	-	-	-	9.2	9.2	-	-	-	-
Year 1	4.2	3.8	0.4	0.2	-	0.102	8.6	8.1	0.5	0.6	-	0.418
Year 2	4.5	4.3	0.3	0.2	-	0.123	9.0	8.7	0.4	0.6	-	0.526
Year 3	4.9	5.0	0.0	0.2	-	0.96	10.2	9.3	0.9	0.6	-	0.115
Year 4	6.2	6.0	0.2	0.2	-	0.219	12.3	10.7	1.6***	0.6	-	0.009
Years 1–4 combined	5.6	5.4	0.2	0.2	-	0.193	10.4	9.5	0.8	0.5	-	0.114
Total number of observations (CPC and comparison) across all years: ED revisit	840,655						231,891					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.11. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oklahoma

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$534	\$533	-	-	-	-	\$1,310	\$1,308	-	-	-	-
Year 1	\$659	\$712	-\$55***	\$11	-7%	<.001	\$1,330	\$1,463	-\$136***	\$33	-9%	<.001
Year 2	\$737	\$746	-\$11	\$17	-1%	0.518	\$1,420	\$1,456	-\$38	\$51	-3%	0.448
Year 3	\$823	\$832	-\$10	\$13	-1%	0.43	\$1,540	\$1,542	-\$2	\$34	0%	0.893
Year 4	\$884	\$891	-\$9	\$12	-1%	0.49	\$1,618	\$1,615	\$3	\$34	0%	0.989
Years 1–4 combined	\$831	\$849	-\$19*	\$10	-2%	0.057	\$1,498	\$1,540	-\$44	\$30	-3%	0.145
Test whether impacts for Years 1–4 are jointly significant	F = 6.788	p-value = 0					F = 6.118	p-value = 0				
With CPC care management fees												
Baseline	\$534	\$533	-	-	-	-	\$1,311	\$1,308	-	-	-	-
Year 1	\$677	\$711	-\$36***	\$11	-4%	0.002	\$1,357	\$1,463	-\$109***	\$33	-7%	0.001
Year 2	\$753	\$746	\$6	\$17	1%	0.714	\$1,446	\$1,456	-\$13	\$51	-1%	0.804
Year 3	\$835	\$832	\$2	\$13	0%	0.863	\$1,558	\$1,542	\$14	\$34	1%	0.683
Year 4	\$895	\$891	\$2	\$12	0%	0.861	\$1,633	\$1,615	\$15	\$34	1%	0.659
Years 1–4 combined	\$846	\$849	-\$5	\$10	-1%	0.646	\$1,520	\$1,540	-\$22	\$30	-1%	0.458
Test whether impacts for Years 1–4 are jointly significant	F = 3.904	p-value = 0.004					F = 4.681	p-value = 0.001				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$185	\$185	-	-	-	-	\$497	\$503	-	-	-	-
Year 1	\$240	\$274	-\$34***	\$8	-11%	<.001	\$512	\$598	-\$80***	\$23	-13%	0.001
Year 2	\$271	\$272	-\$2	\$10	-1%	0.838	\$548	\$558	-\$5	\$32	-1%	0.878
Year 3	\$298	\$301	-\$4	\$8	-1%	0.619	\$589	\$577	\$17	\$22	3%	0.425
Year 4	\$317	\$313	\$3	\$9	1%	0.691	\$614	\$597	\$23	\$23	4%	0.326
Years 1–4 combined	\$301	\$308	-\$8	\$6	-2%	0.173	\$571	\$589	-\$12	\$19	-2%	0.538

Table G.11 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$13	\$9	-	-	-	-	\$65	\$57	-	-	-	-
Year 1	\$29	\$35	-\$9***	\$3	-17%	0.002	\$85	\$101	-\$24***	\$7	-20%	<.001
Year 2	\$38	\$37	-\$3	\$3	-5%	0.393	\$98	\$101	-\$11	\$9	-10%	0.2
Year 3	\$50	\$50	-\$3	\$3	-6%	0.316	\$119	\$124	-\$13	\$9	-10%	0.161
Year 4	\$60	\$57	\$0	\$4	-1%	0.895	\$139	\$131	\$0	\$9	0%	0.979
Years 1–4 combined	\$53	\$53	-\$4	\$3	-6%	0.191	\$116	\$120	-\$12*	\$7	-9%	0.088
Outpatient												
Baseline	\$107	\$109	-	-	-	-	\$206	\$215	-	-	-	-
Year 1	\$118	\$123	-\$2	\$3	-2%	0.514	\$192	\$208	-\$8	\$7	-4%	0.295
Year 2	\$137	\$138	\$1	\$4	1%	0.739	\$220	\$234	-\$6	\$9	-3%	0.482
Year 3	\$149	\$150	\$2	\$4	2%	0.597	\$237	\$237	\$8	\$9	4%	0.364
Year 4	\$154	\$166	-\$9*	\$5	-5%	0.078	\$245	\$254	-\$1	\$10	-1%	0.887
Years 1–4 combined	\$144	\$149	-\$2	\$3	-1%	0.544	\$222	\$232	-\$2	\$6	-1%	0.809
Physician												
Baseline	\$165	\$163	-	-	-	-	\$310	\$299	-	-	-	-
Year 1	\$183	\$182	-\$2	\$3	-1%	0.624	\$302	\$300	-\$8	\$7	-3%	0.271
Year 2	\$193	\$194	-\$3	\$3	-2%	0.31	\$306	\$305	-\$10	\$9	-3%	0.264
Year 3	\$212	\$212	-\$2	\$4	-1%	0.568	\$329	\$320	-\$1	\$8	0%	0.855
Year 4	\$224	\$224	-\$2	\$4	-1%	0.563	\$334	\$331	-\$7	\$8	-2%	0.371
Years 1–4 combined	\$210	\$210	-\$2	\$3	-1%	0.431	\$317	\$313	-\$7	\$6	-2%	0.276
Primary care physician												
Baseline	\$30	\$28	-	-	-	-	\$63	\$57	-	-	-	-
Year 1	\$36	\$34	\$0	\$1	-1%	0.738	\$64	\$60	-\$2	\$1	-3%	0.253
Year 2	\$38	\$37	-\$1	\$1	-3%	0.261	\$65	\$61	-\$2	\$2	-2%	0.417
Year 3	\$45	\$42	\$1	\$1	1%	0.609	\$75	\$68	\$2	\$2	2%	0.476
Year 4	\$48	\$47	-\$1	\$1	-2%	0.471	\$79	\$74	\$0	\$2	0%	0.916
Years 1–4 combined	\$44	\$42	\$0	\$1	-1%	0.619	\$71	\$66	\$0	\$2	-1%	0.802
Office-based primary care physician												
Baseline	\$17	\$16	-	-	-	-	\$27	\$25	-	-	-	-
Year 1	\$18	\$17	\$0	\$0	0%	0.856	\$26	\$23	\$0	\$0	1%	0.45
Year 2	\$18	\$17	\$0	\$0	-1%	0.635	\$25	\$24	\$0	\$1	-1%	0.612
Year 3	\$19	\$18	\$0	\$0	-2%	0.339	\$26	\$24	\$0	\$1	-1%	0.727
Year 4	\$20	\$19	-\$1	\$0	-3%	0.16	\$26	\$25	-\$1	\$1	-3%	0.298
Years 1–4 combined	\$19	\$18	\$0	\$0	-2%	0.374	\$26	\$24	\$0	\$1	-1%	0.687

Table G.11 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$76	\$74	-	-	-	-	\$139	\$133	-	-	-	-
Year 1	\$83	\$83	-\$2	\$2	-2%	0.413	\$133	\$133	-\$7	\$5	-5%	0.225
Year 2	\$85	\$87	-\$4	\$3	-4%	0.165	\$125	\$133	-\$14***	\$5	-10%	0.006
Year 3	\$89	\$90	-\$2	\$2	-2%	0.331	\$130	\$129	-\$5	\$6	-4%	0.341
Year 4	\$94	\$96	-\$3	\$2	-3%	0.245	\$132	\$137	-\$11**	\$6	-8%	0.046
Years 1–4 combined	\$90	\$91	-\$3	\$2	-3%	0.162	\$130	\$133	-\$9**	\$4	-7%	0.027
Office-based specialist												
Baseline	\$15	\$15	-	-	-	-	\$25	\$26	-	-	-	-
Year 1	\$15	\$16	\$0	\$0	0%	0.758	\$23	\$24	\$0	\$0	1%	0.428
Year 2	\$16	\$17	\$0	\$0	0%	0.909	\$23	\$25	\$0	\$0	0%	0.945
Year 3	\$17	\$17	\$0	\$0	2%	0.203	\$23	\$24	\$1	\$1	3%	0.133
Year 4	\$17	\$17	\$0	\$0	3%	0.211	\$23	\$24	\$1	\$1	3%	0.253
Years 1–4 combined	\$17	\$17	\$0	\$0	1%	0.351	\$23	\$24	\$0	\$0	2%	0.288
Home health												
Baseline	\$41	\$44	-	-	-	-	\$151	\$155	-	-	-	-
Year 1	\$49	\$56	-\$4*	\$2	-6%	0.055	\$138	\$151	-\$9**	\$4	-5%	0.038
Year 2	\$54	\$60	-\$3	\$3	-4%	0.288	\$141	\$152	-\$7	\$6	-5%	0.262
Year 3	\$60	\$67	-\$4**	\$2	-6%	0.049	\$146	\$163	-\$13**	\$6	-8%	0.049
Year 4	\$66	\$72	-\$3	\$3	-4%	0.287	\$153	\$169	-\$12	\$8	-7%	0.112
Years 1–4 combined	\$67	\$73	-\$3*	\$2	-5%	0.082	\$151	\$165	-\$10*	\$5	-6%	0.053
Hospice ^a												
Baseline	-\$4	-\$3	-	-	-	-	\$11	\$10	-	-	-	-
Year 1	\$13	\$15	-\$2	\$2	-8%	0.307	\$43	\$47	-\$5	\$6	-8%	0.401
Year 2	\$22	\$23	-\$1	\$2	-3%	0.731	\$59	\$58	\$0	\$5	0%	0.996
Year 3	\$28	\$28	\$0	\$2	1%	0.913	\$65	\$68	-\$4	\$7	-6%	0.547
Year 4	\$37	\$34	\$3	\$3	9%	0.315	\$83	\$80	\$1	\$9	1%	0.916
Years 1–4 combined	\$31	\$31	\$0	\$2	1%	0.854	\$68	\$69	-\$2	\$5	-3%	0.732
DME												
Baseline	\$27	\$26	-	-	-	-	\$69	\$68	-	-	-	-
Year 1	\$26	\$26	-\$1	\$1	-4%	0.164	\$57	\$58	-\$2	\$3	-4%	0.423
Year 2	\$23	\$22	\$0	\$1	-1%	0.758	\$49	\$47	\$1	\$3	2%	0.665
Year 3	\$26	\$24	\$1	\$1	4%	0.337	\$54	\$52	\$1	\$3	3%	0.655
Year 4	\$25	\$25	-\$1	\$2	-2%	0.68	\$50	\$52	-\$3	\$5	-6%	0.527
Years 1–4 combined	\$26	\$25	\$0	\$1	-1%	0.752	\$52	\$52	-\$1	\$3	-1%	0.774

Table G.11 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	247	241	-	-	-	-	610	606	-	-	-	-
Year 1	297	310	-20***	7	-6%	0.003	631	674	-48**	19	-7%	0.014
Year 2	298	291	1	6	0%	0.897	603	600	-2	28	0%	0.954
Year 3	331	326	-1	8	0%	0.938	673	656	13	22	2%	0.545
Year 4	339	329	4	7	1%	0.629	675	645	25	25	4%	0.319
Years 1–4 combined	338	335	-3	6	-1%	0.558	655	654	-3	19	0%	0.875
Total ED visits												
Baseline	583	610	-	-	-	-	1,282	1,360	-	-	-	-
Year 1	659	723	-37***	13	-5%	0.005	1,298	1,494	-118***	38	-8%	0.002
Year 2	713	748	-7	12	-1%	0.553	1,346	1,472	-47	45	-3%	0.295
Year 3	774	825	-24*	14	-3%	0.091	1,457	1,565	-30	52	-2%	0.57
Year 4	797	835	-11	16	-1%	0.498	1,484	1,563	-1	53	0%	0.985
Years 1–4 combined	779	826	-19	12	-2%	0.11	1,400	1,528	-49	37	-3%	0.193
Outpatient ED visits												
Baseline	442	472	-	-	-	-	888	965	-	-	-	-
Year 1	470	530	-31***	11	-6%	0.007	847	1,021	-97***	30	-10%	0.001
Year 2	523	562	-8	11	-1%	0.472	918	1,042	-46	34	-5%	0.168
Year 3	552	608	-26*	14	-4%	0.07	963	1,086	-46	45	-5%	0.301
Year 4	568	612	-14	17	-2%	0.434	982	1,091	-32	46	-3%	0.483
Years 1–4 combined	551	601	-19	12	-3%	0.11	920	1,052	-55*	31	-6%	0.076
Observation stays												
Baseline	55	50	-	-	-	-	120	117	-	-	-	-
Year 1	59	56	-3	3	-4%	0.425	112	121	-13	10	-10%	0.195
Year 2	73	62	6**	3	9%	0.017	133	127	2	7	2%	0.763
Year 3	74	59	9***	3	13%	0.005	136	115	17*	10	15%	0.079
Year 4	82	65	12***	4	17%	0.002	147	118	25**	11	21%	0.019
Years 1–4 combined	76	64	7***	3	10%	0.007	132	121	8	6	6%	0.223
Primary care visits												
Baseline	6,269	6,246	-	-	-	-	10,613	10,387	-	-	-	-
Year 1	6,817	6,852	-58	123	-1%	0.64	10,710	10,588	-104	267	-1%	0.696
Year 2	7,052	6,889	140	159	2%	0.379	10,938	10,476	235	363	2%	0.517
Year 3	7,860	7,411	427**	191	6%	0.026	12,287	11,210	851**	399	7%	0.033
Year 4	8,139	7,695	421*	218	5%	0.053	12,622	11,667	728*	404	6%	0.072
Years 1–4 combined	7,841	7,555	265	167	4%	0.112	11,734	11,076	433	325	4%	0.183

Table G.11 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	4,184	3,915	-	-	-	-	6,232	5,579	-	-	-	-
Year 1	4,300	4,009	23	68	1%	0.738	5,885	5,209	23	132	0%	0.863
Year 2	4,160	3,970	-78	99	-2%	0.432	5,474	5,086	-266	188	-5%	0.159
Year 3	4,241	4,168	-196*	101	-4%	0.052	5,505	5,228	-377*	193	-6%	0.051
Year 4	4,274	4,224	-219**	111	-5%	0.049	5,481	5,326	-499**	207	-8%	0.016
Years 1–4 combined	4,306	4,163	-129	90	-3%	0.15	5,552	5,177	-274*	163	-5%	0.094
Specialist visits												
Baseline	9,516	9,952	-	-	-	-	16,855	17,712	-	-	-	-
Year 1	10,214	10,852	-203*	120	-2%	0.091	16,207	17,643	-579*	304	-3%	0.057
Year 2	10,738	11,172	2	131	0%	0.99	16,217	17,384	-310	305	-2%	0.308
Year 3	11,196	11,379	252	153	2%	0.1	16,864	16,703	1,018***	307	6%	0.001
Year 4	11,428	11,430	434***	160	4%	0.007	16,765	16,460	1,162***	312	7%	<.001
Years 1–4 combined	11,363	11,662	154	116	1%	0.186	16,572	17,132	300	244	2%	0.219
Office-based specialist visits												
Baseline	3,100	3,281	-	-	-	-	5,044	5,332	-	-	-	-
Year 1	3,291	3,444	27	56	1%	0.623	4,798	5,040	46	97	1%	0.638
Year 2	3,402	3,561	21	59	1%	0.716	4,730	5,035	-17	89	0%	0.849
Year 3	3,442	3,501	122*	72	4%	0.092	4,647	4,731	204*	114	5%	0.075
Year 4	3,421	3,453	148**	75	5%	0.048	4,500	4,603	185	141	4%	0.189
Years 1–4 combined	3,476	3,574	87	60	3%	0.148	4,648	4,835	99	94	2%	0.296
Total number of observations (CPC and comparison) across all years ^b	958,272						252,320					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in Year 1, 2, or 3, compared with baseline relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include expenditures on primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.11 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME= durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.12. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oklahoma

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	76.3	78.7	-	-	-	-	73.8	75.6	-	-	-	-
Year 1	77.6	81.2	-1.2	1.0	-	0.224	75.0	78.9	-2.1*	1.3	-	0.087
Year 2	78.7	81.4	-0.3	1.2	-	0.81	75.9	79.9	-2.2	1.7	-	0.199
Year 3	79.4	81.2	0.6	1.0	-	0.554	77.4	81.2	-2.0	1.6	-	0.214
Year 4	80.1	80.4	2.0*	1.1	-	0.058	78.6	78.4	2.1	2.0	-	0.306
Years 1–4 combined	79.1	81.1	0.4	0.8	-	0.67	76.6	79.6	-1.2	1.1	-	0.303
Among patients with diabetes—eye exam												
Baseline	51.1	50.4	-	-	-	-	49.6	49.0	-	-	-	-
Year 1	53.2	56.0	-3.5*	2.0	-	0.081	51.7	54.3	-3.1	2.2	-	0.149
Year 2	54.0	52.1	1.2	1.5	-	0.397	53.8	51.7	1.5	1.8	-	0.393
Year 3	54.3	53.5	0.1	1.3	-	0.947	53.3	51.2	1.5	1.7	-	0.375
Year 4	52.4	54.8	-3.1*	1.6	-	0.055	49.8	54.1	-4.8*	2.6	-	0.072
Years 1–4 combined	54.1	54.7	-1.3	1.2	-	0.283	53.2	53.8	-1.2	1.5	-	0.445
Among patients with diabetes—urine protein test												
Baseline	49.6	48.5	-	-	-	-	57.4	55.3	-	-	-	-
Year 1	52.7	54.1	-2.4	2.3	-	0.295	59.3	58.0	-0.7	2.6	-	0.782
Year 2	54.9	56.1	-2.2	2.2	-	0.315	60.8	61.3	-2.6	2.2	-	0.229
Year 3	62.1	63.0	-1.9	3.3	-	0.564	72.9	75.7	-4.9*	2.7	-	0.07
Year 4	63.4	63.2	-0.8	2.8	-	0.786	74.6	76.7	-4.1*	2.5	-	0.092
Years 1–4 combined	59.6	60.3	-1.8	2.2	-	0.422	66.9	67.6	-2.8	1.9	-	0.131
Among patients with diabetes—all three tests performed												
Baseline	25.0	25.1	-	-	-	-	25.6	25.3	-	-	-	-
Year 1	26.2	31.2	-4.9**	2.1	-	0.023	27.0	31.3	-4.6**	2.0	-	0.023
Year 2	27.9	29.3	-1.3	1.6	-	0.419	28.4	30.5	-2.4	1.8	-	0.192
Year 3	28.9	29.8	-0.8	1.8	-	0.654	32.6	34.2	-1.8	2.1	-	0.391
Year 4	29.5	30.0	-0.5	1.8	-	0.787	32.5	33.9	-1.7	2.3	-	0.462
Years 1–4 combined	28.9	30.8	-1.8	1.4	-	0.202	30.4	32.9	-2.7*	1.5	-	0.074

Table G.12 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	9.8	9.3	-	-	-	-	9.6	9.0	-	-	-	-
Year 1	7.9	6.9	0.6	1.0	-	0.556	7.4	6.5	0.3	1.0	-	0.789
Year 2	7.2	6.6	0.1	1.0	-	0.898	6.9	5.8	0.5	1.3	-	0.69
Year 3	4.7	4.2	0.0	1.0	-	0.975	4.2	2.8	0.8	1.2	-	0.546
Year 4	5.5	4.4	0.6	1.4	-	0.666	4.3	3.3	0.3	1.4	-	0.837
Years 1–4 combined	6.0	5.3	0.3	0.9	-	0.72	5.5	4.5	0.4	0.9	-	0.659
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	131,372						45,991					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	76.8	72.9	-	-	-	-	71.2	68.8	-	-	-	-
Years 1–4 combined	58.1	57.1	-3.0*	1.8	-4.9%	0.091	54.6	54.7	-2.6	1.8	-4.5%	0.163
Percentage of all visits at attributed practice												
Baseline	48.4	45.1	-	-	-	-	41.7	38.5	-	-	-	-
Years 1–4 combined	35.2	34.6	-2.8**	1.3	-7.4%	0.031	31.8	31.1	-2.5*	1.4	-7.4%	0.077
Bice-Boxerman Index based on PCP visits												
Baseline	68.2	65.2	-	-	-	-	62.5	61.1	-	-	-	-
Years 1–4 combined	57.6	57.6	-3.1*	1.6	-5.1%	0.059	55.3	55.8	-2.0	1.5	-3.4%	0.186
Bice-Boxerman Index based on all visits												
Baseline	35.1	32.9	-	-	-	-	29.1	27.5	-	-	-	-
Years 1–4 combined	29.6	29.6	-2.1**	0.9	-6.6%	0.015	27.2	27.2	-1.6*	0.8	-5.4%	0.053
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	223,160						70,334					

Table G.12 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	245,860						77,064					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	58.5	57.1	-	-	-	-	62.9	60.9	-	-	-	-
Year 1	59.5	57.2	0.8	1.0	-	0.415	63.5	61.5	0.0	1.3	-	0.971
Year 2	62.1	57.9	2.8**	1.2	-	0.016	65.1	62.8	0.3	1.3	-	0.794
Year 3	61.1	59.6	0.1	1.0	-	0.899	64.7	63.2	-0.4	1.4	-	0.751
Year 4	64.5	62.5	0.6	1.0	-	0.583	68.4	66.6	-0.2	1.3	-	0.862
Years 1–4 combined	62.7	60.3	1.0	0.9	-	0.237	65.9	64.0	0.0	1.1	-	0.985
Total number of observations (CPC and comparison) across all years: follow-up visit	261,860						133,127					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	47.5	46.6	-	-	-	-	142.4	140.4	-	-	-	-
Year 1	67.5	69.2	-2.6	3.0	-3.0%	0.377	175.5	181.7	-8.2	9.9	-4.2%	0.403
Year 2	69.7	65.5	3.3	2.8	4.3%	0.243	167.0	164.4	0.6	8.9	0.4%	0.942
Year 3	80.7	76.4	3.3	3.4	4.0%	0.338	195.9	186.2	7.6	11.1	4.0%	0.489
Year 4	81.1	77.8	2.3	2.7	3.0%	0.385	191.6	180.9	8.7	9.0	4.8%	0.335
Years 1–4 combined	83.2	80.3	2.0	2.4	2.4%	0.42	188.5	184.1	2.3	7.8	1.2%	0.768
Total number of observations (CPC and comparison) across all years: ACSC admissions	958,272						252,320					
Likelihood of 30-day readmission (percentage)												
Baseline	14.3	14.0	-	-	-	-	17.8	17.4	-	-	-	-
Year 1	16.1	17.0	-1.2	0.8	-	0.109	19.9	22.6	-3.1***	1.1	-	0.006
Year 2	15.5	15.3	-0.1	0.9	-	0.875	19.1	19.2	-0.4	1.4	-	0.746
Year 3	16.1	16.2	-0.5	0.7	-	0.455	20.0	19.9	-0.2	1.0	-	0.806
Year 4	15.7	15.7	-0.4	0.7	-	0.609	19.4	19.5	-0.5	1.4	-	0.726
Years 1–4 combined	15.5	15.7	-0.5	0.6	-	0.36	18.9	19.6	-1.1	0.9	-	0.228

Table G.12 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	261,936						133,145					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	4.4	4.6	-	-	-	-	10.0	10.7	-	-	-	-
Year 1	4.2	4.9	-0.5**	0.3	-	0.037	8.7	10.5	-1.0*	0.6	-	0.059
Year 2	4.9	5.4	-0.3*	0.2	-	0.088	9.4	11.1	-1.0**	0.5	-	0.043
Year 3	5.4	6.3	-0.7***	0.2	-	0.005	10.4	11.6	-0.5	0.6	-	0.402
Year 4	6.6	7.9	-1.0***	0.3	-	<.001	12.4	14.6	-1.5**	0.7	-	0.039
Years 1–4 combined	5.7	6.7	-0.7***	0.2	-	0.002	10.3	12.0	-1.0**	0.5	-	0.05
Total number of observations (CPC and comparison) across all years: ED revisit	958,272						252,320					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

//*** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.13. Regression-adjusted means and estimated difference-in-differences impact of CPC on expenditure and utilization measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oregon

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total Medicare expenditures (dollars PBPM)												
Without CPC care management fees												
Baseline	\$502	\$491	-	-	-	-	\$1,198	\$1,178	-	-	-	-
Year 1	\$609	\$617	-\$19	\$14	-3%	0.159	\$1,222	\$1,198	\$4	\$40	0%	0.925
Year 2	\$675	\$691	-\$27*	\$14	-4%	0.055	\$1,306	\$1,286	\$1	\$49	0%	0.99
Year 3	\$737	\$737	-\$11	\$15	-1%	0.474	\$1,410	\$1,375	\$14	\$43	1%	0.743
Year 4	\$792	\$769	\$12	\$14	2%	0.416	\$1,484	\$1,434	\$30	\$47	2%	0.518
Years 1–4 combined	\$756	\$755	-\$11	\$10	-1%	0.271	\$1,372	\$1,340	\$10	\$32	1%	0.755
Test whether impacts for Years 1–4 are jointly significant	F = 1.302	p-value = 0.271					F = 0.11	p-value = 0.979				
With CPC care management fees												
Baseline	\$502	\$491	-	-	-	-	\$1,199	\$1,179	-	-	-	-
Year 1	\$627	\$616	\$0	\$14	0%	0.991	\$1,250	\$1,198	\$32	\$40	3%	0.434
Year 2	\$692	\$690	-\$9	\$14	-1%	0.515	\$1,334	\$1,286	\$29	\$49	2%	0.557
Year 3	\$750	\$737	\$2	\$16	0%	0.884	\$1,430	\$1,376	\$35	\$43	2%	0.416
Year 4	\$803	\$769	\$23	\$15	3%	0.111	\$1,502	\$1,434	\$48	\$47	3%	0.31
Years 1–4 combined	\$771	\$755	\$4	\$10	1%	0.675	\$1,396	\$1,340	\$34	\$32	2%	0.297
Test whether impacts for Years 1–4 are jointly significant	F = 0.894	p-value = 0.468					F = 0.395	p-value = 0.812				
Expenditures by type of service (dollars PBPM)												
Inpatient												
Baseline	\$177	\$169	-	-	-	-	\$467	\$451	-	-	-	-
Year 1	\$224	\$227	-\$11	\$9	-4%	0.21	\$469	\$471	-\$19	\$25	-4%	0.457
Year 2	\$247	\$248	-\$8	\$10	-3%	0.397	\$499	\$475	\$8	\$30	2%	0.8
Year 3	\$261	\$264	-\$12	\$8	-4%	0.171	\$529	\$523	-\$12	\$25	-2%	0.643
Year 4	\$279	\$269	\$2	\$9	1%	0.823	\$553	\$531	\$5	\$25	1%	0.853
Years 1–4 combined	\$272	\$270	-\$7	\$6	-3%	0.244	\$517	\$505	-\$5	\$19	-1%	0.79

G.67

Table G.13 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Skilled nursing facility												
Baseline	\$18	\$19	-	-	-	-	\$77	\$81	-	-	-	-
Year 1	\$35	\$36	\$0	\$3	0%	0.943	\$103	\$99	\$8	\$7	7%	0.277
Year 2	\$39	\$47	-\$7***	\$2	-12%	0.006	\$105	\$123	-\$14*	\$8	-11%	0.089
Year 3	\$47	\$50	-\$2	\$3	-4%	0.549	\$125	\$132	-\$3	\$10	-2%	0.743
Year 4	\$51	\$54	-\$1	\$3	-2%	0.646	\$127	\$129	\$2	\$10	1%	0.855
Years 1–4 combined	\$52	\$55	-\$3	\$2	-5%	0.195	\$120	\$126	-\$2	\$6	-2%	0.69
Outpatient												
Baseline	\$109	\$100	-	-	-	-	\$221	\$203	-	-	-	-
Year 1	\$120	\$114	-\$3	\$4	-3%	0.348	\$213	\$195	\$0	\$9	0%	0.959
Year 2	\$136	\$137	-\$10**	\$4	-7%	0.024	\$234	\$220	-\$4	\$9	-2%	0.624
Year 3	\$150	\$148	-\$8*	\$4	-5%	0.087	\$252	\$234	\$0	\$10	0%	0.982
Year 4	\$164	\$157	-\$2	\$6	-1%	0.673	\$269	\$254	-\$3	\$11	-1%	0.79
Years 1–4 combined	\$148	\$145	-\$6	\$4	-4%	0.115	\$239	\$223	-\$2	\$8	-1%	0.76
Physician												
Baseline	\$169	\$170	-	-	-	-	\$311	\$315	-	-	-	-
Year 1	\$174	\$183	-\$8	\$5	-4%	0.108	\$280	\$286	-\$2	\$11	-1%	0.814
Year 2	\$188	\$194	-\$5	\$5	-2%	0.333	\$300	\$297	\$7	\$12	2%	0.545
Year 3	\$202	\$204	-\$1	\$6	0%	0.874	\$312	\$308	\$8	\$13	3%	0.543
Year 4	\$214	\$210	\$5	\$5	2%	0.37	\$325	\$320	\$9	\$13	3%	0.513
Years 1–4 combined	\$202	\$205	-\$2	\$5	-1%	0.685	\$304	\$303	\$5	\$10	2%	0.614
Primary care physician												
Baseline	\$28	\$29	-	-	-	-	\$53	\$55	-	-	-	-
Year 1	\$30	\$33	-\$2**	\$1	-6%	0.013	\$51	\$56	-\$4**	\$2	-7%	0.013
Year 2	\$33	\$35	-\$1	\$1	-4%	0.278	\$55	\$56	\$0	\$2	-1%	0.861
Year 3	\$37	\$38	\$1	\$1	1%	0.666	\$60	\$60	\$1	\$2	1%	0.694
Year 4	\$39	\$40	\$0	\$1	0%	0.916	\$61	\$63	-\$1	\$2	-1%	0.797
Years 1–4 combined	\$36	\$38	-\$1	\$1	-2%	0.495	\$57	\$60	-\$1	\$2	-2%	0.503
Office-based primary care physician												
Baseline	\$17	\$17	-	-	-	-	\$28	\$29	-	-	-	-
Year 1	\$17	\$18	-\$1*	\$0	-4%	0.075	\$26	\$28	-\$1	\$1	-4%	0.104
Year 2	\$18	\$18	\$0	\$0	0%	0.899	\$27	\$27	\$0	\$1	1%	0.732
Year 3	\$18	\$18	\$0	\$0	1%	0.732	\$27	\$27	\$0	\$1	2%	0.517
Year 4	\$19	\$19	\$1	\$1	3%	0.246	\$28	\$27	\$1	\$1	5%	0.114
Years 1–4 combined	\$19	\$19	\$0	\$0	0%	0.914	\$27	\$27	\$0	\$1	1%	0.729

Table G.13 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Specialist												
Baseline	\$81	\$79	-	-	-	-	\$157	\$156	-	-	-	-
Year 1	\$82	\$85	-\$6	\$4	-6%	0.114	\$133	\$137	-\$5	\$10	-4%	0.594
Year 2	\$88	\$91	-\$6	\$4	-6%	0.117	\$139	\$144	-\$7	\$9	-5%	0.449
Year 3	\$94	\$95	-\$4	\$4	-4%	0.385	\$145	\$146	-\$2	\$11	-1%	0.842
Year 4	\$100	\$95	\$2	\$4	2%	0.529	\$152	\$147	\$4	\$10	3%	0.685
Years 1–4 combined	\$95	\$95	-\$3	\$3	-3%	0.37	\$142	\$143	-\$3	\$8	-2%	0.728
Office-based specialist												
Baseline	\$16	\$16	-	-	-	-	\$28	\$28	-	-	-	-
Year 1	\$17	\$17	\$0	\$0	-2%	0.267	\$26	\$26	\$0	\$1	0%	0.89
Year 2	\$18	\$18	\$0	\$0	-1%	0.409	\$27	\$26	\$1	\$1	2%	0.384
Year 3	\$18	\$18	\$0	\$0	0%	0.991	\$26	\$25	\$1*	\$1	4%	0.068
Year 4	\$18	\$17	\$1*	\$0	4%	0.088	\$26	\$25	\$1	\$1	4%	0.278
Years 1–4 combined	\$18	\$18	\$0	\$0	0%	0.797	\$26	\$25	\$1	\$0	2%	0.201
Home health												
Baseline	\$12	\$13	-	-	-	-	\$51	\$54	-	-	-	-
Year 1	\$19	\$20	\$1	\$1	3%	0.439	\$60	\$59	\$3	\$3	5%	0.296
Year 2	\$24	\$24	\$1	\$1	4%	0.303	\$68	\$65	\$5	\$4	8%	0.144
Year 3	\$28	\$28	\$2	\$2	5%	0.318	\$75	\$72	\$6	\$5	8%	0.232
Year 4	\$33	\$32	\$2	\$2	5%	0.358	\$84	\$86	\$0	\$6	0%	0.997
Years 1–4 combined	\$31	\$31	\$1	\$1	4%	0.256	\$75	\$74	\$3	\$3	5%	0.281
Hospice ^a												
Baseline	-\$5	-\$1	-	-	-	-	\$9	\$16	-	-	-	-
Year 1	\$14	\$16	\$1	\$2	6%	0.506	\$44	\$43	\$9*	\$5	19%	0.068
Year 2	\$21	\$22	\$2	\$2	8%	0.403	\$56	\$67	-\$3	\$9	-5%	0.725
Year 3	\$28	\$22	\$10***	\$3	43%	<.001	\$71	\$64	\$14*	\$7	24%	0.053
Year 4	\$32	\$28	\$8***	\$2	31%	0.002	\$82	\$74	\$16**	\$7	24%	0.018
Years 1–4 combined	\$29	\$27	\$5***	\$2	22%	0.003	\$68	\$67	\$8*	\$5	14%	0.071
DME												
Baseline	\$22	\$21	-	-	-	-	\$61	\$58	-	-	-	-
Year 1	\$23	\$21	\$1	\$1	4%	0.424	\$54	\$45	\$6*	\$3	13%	0.056
Year 2	\$19	\$19	\$0	\$1	-1%	0.852	\$45	\$40	\$2	\$3	5%	0.446
Year 3	\$21	\$20	\$0	\$1	0%	0.941	\$47	\$42	\$1	\$3	3%	0.686
Year 4	\$20	\$19	\$0	\$1	-2%	0.663	\$44	\$39	\$3	\$3	6%	0.392
Years 1–4 combined	\$22	\$21	\$0	\$1	0%	0.998	\$47	\$41	\$3	\$2	7%	0.178

Table G.13 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Utilization (annualized rate per 1,000 beneficiaries)												
Hospitalizations												
Baseline	186	178	-	-	-	-	463	442	-	-	-	-
Year 1	219	221	-11*	7	-4%	0.081	479	474	-16	19	-3%	0.399
Year 2	225	226	-10	8	-4%	0.218	474	458	-4	26	-1%	0.861
Year 3	243	237	-3	8	-1%	0.653	512	490	1	24	0%	0.956
Year 4	247	246	-8	7	-3%	0.267	511	503	-13	25	-3%	0.597
Years 1–4 combined	253	252	-9	6	-3%	0.137	505	492	-8	19	-2%	0.654
Total ED visits												
Baseline	519	505	-	-	-	-	1,177	1,146	-	-	-	-
Year 1	569	580	-24	17	-4%	0.155	1,184	1,166	-13	45	-1%	0.771
Year 2	617	634	-31*	19	-4%	0.096	1,239	1,225	-17	54	-1%	0.746
Year 3	674	684	-24	19	-3%	0.21	1,343	1,299	13	62	1%	0.828
Year 4	706	726	-34*	19	-5%	0.077	1,381	1,379	-29	56	-2%	0.606
Years 1–4 combined	692	708	-31*	17	-4%	0.068	1,303	1,283	-13	49	-1%	0.796
Outpatient ED visits												
Baseline	418	408	-	-	-	-	877	853	-	-	-	-
Year 1	438	447	-19	15	-4%	0.201	852	837	-8	35	-1%	0.817
Year 2	479	497	-28*	15	-5%	0.067	909	900	-14	42	-1%	0.741
Year 3	515	529	-23	18	-4%	0.182	966	929	14	56	1%	0.802
Year 4	543	562	-28	19	-5%	0.124	998	998	-23	51	-2%	0.646
Years 1–4 combined	526	541	-27*	15	-5%	0.078	936	920	-9	41	-1%	0.835
Observation stays												
Baseline	36	33	-	-	-	-	89	77	-	-	-	-
Year 1	40	35	2	2	4%	0.337	89	73	4	8	4%	0.646
Year 2	50	44	3	3	6%	0.359	102	84	6	12	6%	0.597
Year 3	46	43	0	3	1%	0.918	93	84	-3	12	-3%	0.826
Year 4	51	43	5	3	11%	0.123	100	88	-1	10	-1%	0.959
Years 1–4 combined	51	45	3	3	6%	0.297	98	84	2	10	2%	0.851
Primary care visits												
Baseline	5,806	6,548	-	-	-	-	9,781	10,881	-	-	-	-
Year 1	6,015	6,967	-209	140	-3%	0.135	9,351	10,870	-421	266	-4%	0.113
Year 2	6,227	7,032	-63	159	-1%	0.692	9,609	10,624	84	345	1%	0.808
Year 3	6,503	7,206	39	161	1%	0.808	10,039	10,936	202	292	2%	0.488
Year 4	6,618	7,287	73	172	1%	0.671	10,089	11,030	158	292	2%	0.588
Years 1–4 combined	6,678	7,484	-30	149	0%	0.838	9,903	11,015	-3	269	0%	0.992

Table G.13 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Office-based primary care visits												
Baseline	3,750	3,928	-	-	-	-	5,966	6,324	-	-	-	-
Year 1	3,882	4,113	-53	84	-1%	0.529	5,752	6,201	-91	141	-2%	0.521
Year 2	3,954	4,029	103	101	3%	0.306	5,766	5,885	239	184	4%	0.192
Year 3	4,067	4,153	92	105	2%	0.38	5,793	5,909	242	180	4%	0.178
Year 4	4,151	4,145	183	127	5%	0.15	5,841	5,811	388*	212	7%	0.067
Years 1–4 combined	4,157	4,247	93	99	2%	0.351	5,811	5,982	192	159	3%	0.227
Specialist visits												
Baseline	9,424	9,298	-	-	-	-	16,837	16,858	-	-	-	-
Year 1	9,735	9,835	-227	160	-2%	0.157	15,590	15,548	64	336	0%	0.85
Year 2	10,215	10,343	-255*	153	-2%	0.095	15,775	15,623	173	395	1%	0.662
Year 3	10,461	10,466	-132	165	-1%	0.424	15,810	15,469	362	307	2%	0.238
Year 4	10,637	10,361	149	157	1%	0.343	15,788	15,432	377	372	2%	0.311
Years 1–4 combined	10,749	10,724	-110	137	-1%	0.422	15,797	15,578	241	283	2%	0.395
Office-based specialist visits												
Baseline	3,146	3,050	-	-	-	-	5,357	5,272	-	-	-	-
Year 1	3,204	3,157	-48	50	-1%	0.335	4,900	4,759	57	94	1%	0.548
Year 2	3,347	3,313	-61	38	-2%	0.106	4,926	4,746	95	100	2%	0.345
Year 3	3,375	3,363	-83	54	-2%	0.124	4,788	4,618	85	100	2%	0.391
Year 4	3,350	3,197	57	62	2%	0.353	4,608	4,444	79	137	2%	0.563
Years 1–4 combined	3,435	3,368	-33	39	-1%	0.402	4,786	4,623	81	79	2%	0.308
Total number of observations (CPC and comparison) across all years ^b	1,115,513						283,207					

Source: Medicare claims data for October 2011 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis, and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in Year 1, 2, or 3, compared with baseline relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. Expenditures on physician services include expenditures on primary care physician services, specialist services, and services provided by other noninstitutional providers (the third category is not shown separately). For Medicare service use measures, observation stays are included in measures of outpatient ED visits and total ED visits. Primary care visits include office-based primary care visits as well as visits in other settings. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

Table G.13 (continued)

^a Actual hospice expenditures at baseline were close to zero, because beneficiaries had to be alive and not in hospice during the look-back period for attribution (which ended five months before the start of CPC in two regions, and two months before the start of CPC in five regions). The negative baseline estimate is a result of predicting values using regression coefficients.

^b See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; DME= durable medical equipment; ED = emergency department; PBPM = per beneficiary per month; HCC = Hierarchical Condition Category.

Table G.14. Regression-adjusted means and estimated difference-in-differences impact of CPC on selected quality-of-care process and outcome measures during the four years of CPC for attributed Medicare FFS beneficiaries: yearly estimates for Oregon

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Quality-of-care process measures for patients with diabetes (percentage point changes)												
Among patients with diabetes—HbA1c test												
Baseline	91.1	90.9	-	-	-	-	89.1	87.5	-	-	-	-
Year 1	92.8	92.0	0.6	1.2	-	0.602	91.5	88.7	1.3	1.6	-	0.446
Year 2	93.8	93.3	0.4	0.8	-	0.595	93.3	91.4	0.3	1.5	-	0.829
Year 3	93.8	93.7	0.0	1.1	-	0.987	93.2	92.5	-0.9	1.6	-	0.581
Year 4	93.5	93.9	-0.6	0.9	-	0.514	93.3	92.1	-0.4	1.6	-	0.809
Years 1–4 combined	93.3	93.1	0.1	0.9	-	0.932	92.8	91.1	0.1	1.4	-	0.924
Among patients with diabetes—eye exam												
Baseline	53.3	53.4	-	-	-	-	52.6	53.8	-	-	-	-
Year 1	56.9	53.4	3.4	2.1	-	0.11	57.2	53.4	5.0*	2.8	-	0.074
Year 2	58.2	55.9	2.3	1.6	-	0.162	57.7	56.1	2.8	2.7	-	0.301
Year 3	60.0	57.5	2.4	2.3	-	0.282	60.1	57.8	3.4	2.7	-	0.2
Year 4	60.6	56.8	3.8*	2.1	-	0.072	60.7	57.4	4.5	3.3	-	0.179
Years 1–4 combined	59.6	56.7	3.0*	1.7	-	0.09	59.5	56.8	3.9	2.4	-	0.108
Among patients with diabetes—urine protein test												
Baseline	60.9	66.5	-	-	-	-	66.5	71.0	-	-	-	-
Year 1	65.4	69.7	1.2	1.8	-	0.493	68.5	73.8	-0.7	2.5	-	0.782
Year 2	71.1	72.9	3.8**	1.9	-	0.049	74.3	73.6	5.3**	2.5	-	0.033
Year 3	59.9	59.0	6.6**	3.2	-	0.038	73.0	68.4	9.1***	3.0	-	0.002
Year 4	58.8	61.3	3.1	3.2	-	0.328	72.8	72.9	4.5	3.4	-	0.188
Years 1–4 combined	64.3	66.3	3.8*	2.1	-	0.067	72.4	72.7	4.3**	2.0	-	0.031
Among patients with diabetes—all three tests performed												
Baseline	34.2	37.3	-	-	-	-	36.0	40.0	-	-	-	-
Year 1	39.5	39.4	3.2*	2.0	-	0.097	41.5	42.0	3.5	3.0	-	0.253
Year 2	43.0	43.1	3.0*	1.7	-	0.077	43.9	43.8	4.1*	2.4	-	0.083
Year 3	35.4	34.4	4.2	2.7	-	0.115	43.0	41.8	5.1	3.2	-	0.107
Year 4	35.0	34.0	4.1*	2.3	-	0.074	42.6	43.2	3.3	3.3	-	0.313
Years 1–4 combined	38.9	38.4	3.7**	1.7	-	0.034	43.4	43.4	4.0*	2.4	-	0.097

Table G.14 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Among patients with diabetes—none of the three tests performed												
Baseline	5.0	5.0	-	-	-	-	5.3	6.4	-	-	-	-
Year 1	4.2	4.6	-0.5	1.0	-	0.643	4.6	5.8	-0.1	1.4	-	0.95
Year 2	3.3	3.9	-0.7	0.6	-	0.273	3.0	4.7	-0.6	1.2	-	0.628
Year 3	1.9	2.7	-0.9	0.9	-	0.322	1.7	3.4	-0.6	1.4	-	0.681
Year 4	2.3	2.0	0.2	0.7	-	0.772	1.8	2.2	0.6	1.1	-	0.571
Years 1–4 combined	2.9	3.3	-0.4	0.7	-	0.532	2.8	4.0	-0.2	1.1	-	0.872
Total number of observations (CPC and comparison) across all years: patients with diabetes ^a	121,971						42,099					
Continuity of care (percentage)												
Percentage of PCP visits at attributed practice												
Baseline	75.1	73.4	-	-	-	-	71.9	69.6	-	-	-	-
Years 1–4 combined	56.9	57.0	-1.7	2.8	-3.0%	0.537	55.5	54.4	-1.2	3.4	-2.1%	0.725
Percentage of all visits at attributed practice												
Baseline	45.1	46.7	-	-	-	-	40.5	42.2	-	-	-	-
Years 1–4 combined	33.3	34.5	0.5	2.1	1.4%	0.823	32.2	33.3	0.7	2.4	2.1%	0.784
Bice-Boxerman Index based on PCP visits												
Baseline	65.7	64.2	-	-	-	-	62.5	60.5	-	-	-	-
Years 1–4 combined	53.4	54.0	-2.1	1.7	-3.8%	0.21	52.5	53.2	-2.7	1.6	-4.8%	0.103
Bice-Boxerman Index based on all visits												
Baseline	33.6	34.6	-	-	-	-	29.4	30.3	-	-	-	-
Years 1–4 combined	28.0	28.8	0.2	1.1	0.6%	0.87	27.0	27.9	0.0	1.2	-0.1%	0.986
Total number of observations (CPC and comparison) across all years: measures based on PCP visits	229,722						74,924					

G.74

Table G.14 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: measures based on all visits	273,342						87,014					
Transitional care and quality-of-care outcomes (annualized rate per 1,000 or percentage)												
Likelihood of 14-day follow-up visit (percentage)												
Baseline	59.2	62.0	-	-	-	-	64.5	68.3	-	-	-	-
Year 1	59.1	60.1	1.8	1.3	-	0.163	64.6	65.8	2.6*	1.4	-	0.06
Year 2	59.9	62.6	0.2	1.4	-	0.896	65.0	66.8	2.1	1.4	-	0.153
Year 3	62.0	62.9	1.9	1.3	-	0.139	66.8	65.7	5.0***	1.7	-	0.003
Year 4	62.7	66.1	-0.5	1.5	-	0.719	68.2	70.6	1.4	1.9	-	0.452
Years 1–4 combined	61.6	63.7	0.7	1.1	-	0.512	66.2	67.3	2.7**	1.1	-	0.013
Total number of observations (CPC and comparison) across all years: follow-up visit	248,056						123,890					
ACSC admissions (annualized rate per 1,000 beneficiaries)												
Baseline	29.3	29.5	-	-	-	-	89.4	90.5	-	-	-	-
Year 1	42.6	41.6	1.3	2.3	2.3%	0.576	117.0	117.4	0.6	7.4	0.5%	0.931
Year 2	43.7	41.8	2.2	2.7	4.3%	0.422	118.7	112.3	7.5	10.6	6.3%	0.48
Year 3	48.2	47.5	1.0	2.6	2.0%	0.684	127.4	126.6	1.9	10.6	1.4%	0.86
Year 4	52.6	49.8	3.1	2.4	6.2%	0.202	133.4	122.0	12.5	8.2	10.4%	0.129
Years 1–4 combined	53.8	52.0	2.1	2.3	4.1%	0.353	130.1	126.0	5.5	7.3	4.4%	0.453
Total number of observations (CPC and comparison) across all years: ACSC admissions	1,115,513						283,207					
Likelihood of 30-day readmission (percentage)												
Baseline	12.8	13.0	-	-	-	-	15.9	16.8	-	-	-	-
Year 1	12.9	13.2	-0.1	0.9	-	0.947	16.6	16.6	0.9	1.3	-	0.507
Year 2	12.7	13.9	-0.9	1.0	-	0.389	15.6	17.3	-0.8	1.5	-	0.619
Year 3	13.6	13.2	0.7	1.0	-	0.462	17.2	16.3	1.8	1.5	-	0.238
Year 4	13.2	13.3	0.1	0.8	-	0.896	16.2	16.1	1.0	1.4	-	0.462
Years 1–4 combined	13.1	13.4	0.0	0.8	-	0.992	16.1	16.3	0.7	1.2	-	0.52

Table G.14 (continued)

	All attributed Medicare beneficiaries						High-risk attributed Medicare beneficiaries					
	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact	CPC practices' regression-adjusted mean	Comparison group practices' regression-adjusted mean	Estimated impact (size)	Standard error for impact estimate	Estimated impact (percentage)	p-value for estimated impact
Total number of observations (CPC and comparison) across all years: readmissions	248,156						123,917					
Likelihood of an ED revisit within 30 days of an outpatient ED visit (percentage)												
Baseline	4.1	4.0	-	-	-	-	10.1	9.6	-	-	-	-
Year 1	4.1	4.1	-0.2	0.3	-	0.433	9.0	8.9	-0.4	0.6	-	0.465
Year 2	4.6	4.8	-0.4*	0.2	-	0.066	9.9	10.0	-0.7	0.5	-	0.168
Year 3	5.2	5.4	-0.3	0.2	-	0.115	11.2	10.6	0.0	0.5	-	0.959
Year 4	6.8	7.2	-0.6**	0.2	-	0.019	13.5	13.8	-0.9	0.6	-	0.132
Years 1–4 combined	5.8	6.0	-0.4**	0.2	-	0.022	11.1	11.1	-0.5	0.4	-	0.231
Total number of observations (CPC and comparison) across all years: ED revisit	1,115,513						283,207					

Source: Medicare claims data for October 2008 through December 2016.

Note: Impact estimates and predicted means are regression-adjusted for baseline patient characteristics (including HCC scores) and baseline practice characteristics. Each impact estimate is based on a difference-in-differences analysis and reflects the difference in the regression-adjusted average outcome for attributed Medicare FFS beneficiaries in CPC practices in the post-intervention period compared with the pre-intervention period relative to the same difference over time for attributed Medicare FFS beneficiaries in matched comparison practices. For ED revisit, we also control for chronic conditions at baseline. For the readmissions and follow-up visits equations that are estimated at the discharge level, we also control for discharge-level risk factors. Number of observations includes the total number of treatment and comparison group observations across all years. For continuous quality-of-care outcome measures, we present the absolute impact estimate as well as its relative size in percentage terms. For binary quality-of-care outcome measures, we present the absolute impact estimate in only percentage points. Regression-adjusted means for each year and for both groups from the annual regression are obtained by using average values of the control variables among beneficiaries in CPC practices in Year 4, to hold beneficiary and practice attributes fixed in generating predictions. Regression-adjusted means from the cumulative regression are obtained by using average values of the control variables among beneficiaries in CPC practices across all four CPC years. Regression-adjusted means from the cumulative regression are similar but not always perfectly aligned with those from the annual regression due to differences in coefficients on control variables and the different samples used for predictions; however, the impact estimate from the cumulative regression is within the range of values for the impact estimates from the annual regression.

^a See Table G.15 for the number of unique beneficiaries included in each analysis.

*/**/*** Significantly different from zero at the 0.10/0.05/0.01 level, two-tailed test.

FFS = fee-for-service; ACSC = ambulatory care sensitive condition; ED = emergency department; PCP = primary care physician; HCC = Hierarchical Condition Category.

Table G.15. Number of unique beneficiaries in the analysis, by region, and by outcome measure

	AR		CO		NJ		NY		OH/KY		OK		OR	
	CPC	Comparison	CPC	Comparison	CPC	Comparison	CPC	Comparison	CPC	Comparison	CPC	Comparison	CPC	Comparison
Cost and use outcomes	93,547	230,755	83,398	175,972	76,762	127,337	67,979	100,390	75,733	153,752	79,399	168,761	88,856	208,317
Diabetes—quality of care outcomes	16,546	41,971	9,466	26,003	10,415	17,383	9,909	14,897	13,133	26,566	15,722	31,471	13,026	32,160
Continuity of care—primary care visits	46,234	108,315	34,833	70,717	34,047	53,976	32,186	42,835	36,510	67,308	38,919	72,661	38,595	76,266
Continuity of care—all visits	50,162	119,498	39,273	89,551	38,980	62,919	36,358	47,645	40,757	74,493	41,522	81,408	43,724	92,947
14-day follow-up visits	40,661	101,156	30,669	73,636	30,451	50,848	27,607	40,486	31,959	65,657	35,113	74,513	32,955	82,368
ACSC admission and ED revisit	93,547	230,755	83,398	175,972	76,762	127,337	67,979	100,390	75,733	153,752	79,399	168,761	88,856	208,317
30-day readmission	40,666	101,171	30,676	73,653	30,457	50,868	27,616	40,498	31,964	65,678	35,118	74,523	32,961	82,391

Source: Medicare claims data for October 2011 through December 2016.

This page has been left blank for double-sided copying.

APPENDIX H:
COMPARISON GROUP SELECTION

This page has been left blank for double-sided copying.

This appendix describes the non-experimental selection of the comparison group used to measure impacts. From a pool of potential comparison practices, we matched CPC practices in each CPC region to other practices in the same or a similar region that have observed and (where possible) unobserved characteristics similar to the ones selected for the initiative. For each CPC region, the pool of potential comparison practices contained (1) practices that applied to the model in that region but were not selected (“internal comparison practices”), along with (2) practices from comparable external regions that were similar to CPC regions (“external comparison practices”). We included the first group of nonselected practices in the potential comparison practice pool because they had expressed the same willingness to participate in the initiative as the selected practices and were therefore likely to share the same motivation (an unobserved characteristic) to provide enhanced primary care to beneficiaries. Additionally, being located in the same region as the CPC practices, the nonselected practices are subject to the same regional conditions as the CPC practices and would therefore help account for regional factors that could affect outcomes. A typical evaluation would not choose for its comparison group practices that had applied to CPC but were not selected. However, in this case, using nonselected applicants should not introduce selection bias, because CMS chose practices according to an application score based on criteria that were observable and objective (including whether they were meaningful users of electronic health records (EHRs), their previous experience with practice transformation or the patient-centered medical home (PCMH) model, and the proportion of their beneficiaries covered by participating payers—and not based their pre-CPC outcomes or on subjective criteria. Second, we could ensure the within-region practices chosen for the comparison group offered comparable values for the limited measures that CMS considered from applications that might be related to subsequent performance—meaningful use of EHRs and PCMH recognition.

The second group of practices—those in the external comparison regions—help us to develop a sufficiently large pool of potential comparison practices, as well as to capture the status quo in the absence of the intervention in a representative set of regions that were similar to the CPC regions. The goal of propensity score matching was to select the best available matches for each CPC practice; a larger pool of potential comparisons yields better matches and ensures a sufficient sample of matched comparison practices even after discarding candidates that do not match well to any CPC practice. Further, including in the potential comparison practice pool both nonselected practices from the same CPC region as well as other practices from external comparison regions led to a sample of matched comparison practices or a counterfactual that represents similar practices in multiple regions that shared the same broad regional characteristics, instead of constraining the comparison practice pool to a single region for each CPC region.

We identified the potential comparison practices within each CPC region that had applied but had not been selected, using practice applications to CPC and information from the Center for Medicare & Medicaid Innovation (CMMI) about how CMMI scored and selected practices. We excluded from the pool practices that were eligible to apply because they are located within a CPC region, but who had not done so. We believe these practices were systematically different than practices that chose to apply, in terms of their motivation to transform care.

To identify potential comparison practices in the external regions, we used a two-step process. First, we identified comparison regions for each CPC region, based on geographic proximity, the application score CMMI assigned the region in the selection process, and the

primary care landscape. Second, within each of the external comparison regions, we defined a set of potential comparison practices.

For propensity score matching, the full pool of potential comparison practices included both unselected applicants from the same region who met eligibility requirements, along with practices in the external regions. We detail our approach below.

A. Identifying external comparison regions

In the first step, we identified comparison areas. To maximize the face validity of our approach, we sought to select comparison regions that were in close geographic proximity to the CPC regions. We chose neighboring states for the four statewide CPC regions (Oregon, Colorado, Arkansas, and New Jersey). For the Capital District-Hudson Valley region (New York), we selected both a within-state region¹⁰ and regions from neighboring states. We selected a within-state region for each of the two other CPC regions that cover only a portion of a state (greater Tulsa region in Oklahoma and the Cincinnati–Dayton region in Ohio and Kentucky). To ensure similarly motivated payers in the comparison areas, we sought to select as comparison regions only states or areas within a state that also applied to CPC but were not selected. Even though these regions were not selected, they are presumably closer to CPC regions in terms of payer interest than regions in which the payers were not interested or motivated enough to apply to CPC. In some cases, we included additional regions that did not have any payers that applied to CPC, to supplement the nonselected applicant regions, because there were too few practices located in the nonselected applicant regions to form a useful comparison group. Also, we ruled out states or areas that are participating in CMS’s Multi-Payer Advanced Primary Care Practice (MAPCP) demonstration, because many of the practices are already receiving a somewhat similar primary care intervention.

We also considered a variety of other factors in selecting comparison regions, including those listed in Table H.1.

Table H.1. Factors and data sources for selecting comparison regions

Factor	Data source
Whether region applied to CPC	CMMI, 2012
Number of primary care practices in a state	SK&A, 2010
Practice size	SK&A, 2010
PCMH activity in state	NCQA, 2011
Whether a state had other ongoing CMS demonstrations or initiatives, such as the Duals Demonstration or the Medicaid Health Home Demonstration	CMMI, 2012
Percentage of practices in state with EHR system	Robert Wood Johnson Foundation, 2011
State-level information on rates of hospital discharges (medical and surgical) and mortality	Dartmouth Access Health Care, 2010

PCMH = primary care medical home; CMS = Centers for Medicare & Medicaid Services; CMMI = Center for Medicare & Medicaid Innovation; EHR = electronic health record; NCQA = National Committee for Quality Assurance.

¹⁰ Within-state comparison regions will facilitate the analysis of Medicaid data, because Medicaid programs vary by state.

CMMI reviewed our proposed comparison regions before we selected final regions. We describe the final selected external comparison regions below.

Arkansas (a statewide region) has Tennessee as its comparison region. Tennessee was the only statewide region neighboring Arkansas in which payers applied to CPC. Compared with Arkansas, Tennessee had a similar proportion of small practices and comparable levels of EHR use.

For Colorado (a statewide region), the comparison regions include Utah, New Mexico, and Kansas. We chose Utah for its geographic proximity and the presence of advanced primary care practices (especially in the Salt Lake City region). Also, Utah had a similar mix of small and large practices. Kansas, another neighboring state of Colorado, had a similar mix of small and large practices as well as similar rates of EHR use as Colorado, and it included a region with payers that applied to CPC that was not selected. Finally, the two regions that applied to CPC in New Mexico are included in the comparison region pool for Colorado.

The New Jersey region and the New York (Capital District–Hudson Valley region) shared potential comparison region areas that included Connecticut and western and central New York. We chose Connecticut because payers there applied to CPC, and it is geographically proximate to both New York and New Jersey. It also has a similar mix of small and large practices, similar levels of PCMH activity, and high EHR use rates. Likewise, western and central New York are geographically proximate to the CPC regions in New York and New Jersey and were similar in terms of the mix of practice locations in rural versus urban areas.

The comparison region for the Cincinnati–Dayton region of Ohio and Kentucky includes the other counties in Ohio that were not part of CPC (many of which included payers that applied to CPC). By using the rest of Ohio for the comparison region, we ensured that both the CPC and comparison practices were similar in terms of state-level initiatives. Similarly, the proposed comparison region for the greater Tulsa region of Oklahoma comprises the other counties in Oklahoma with payers that applied but were not selected for CPC.

For Oregon, we chose Idaho and Washington as comparison regions. Idaho is the only other statewide region neighboring Oregon with payers that applied to CPC. However, because Idaho alone did not contain an adequate number of suitable comparison practices for Oregon, we chose Washington as an additional comparison region. Compared with Oregon, Washington had a similar proportion of large practices, as well as similar levels of PCMH activity and EHR use.

B. Identifying the pool of potential comparison practices

Within each of the external comparison regions, we defined a set of potential comparison practices using a roster of primary care practice sites and the physicians who practiced in them.¹¹ We used Medicare claims data to determine the corresponding tax identification number (TIN) used by the physicians in the practice.

¹¹ Physician records included National Provider Identifiers (NPIs) provided by SK&A, a marketing organization that collects this information directly from practices and updates its files on an ongoing basis. ARC used the tax

Because practices selected for CPC had to meet certain eligibility criteria imposed by CMS, potential comparison practices that had applied from within the CPC region but had not been selected and practices from the matched external comparison regions would ideally be screened using these same criteria (Table H.2). Therefore, where possible, we used the exact criteria or an approximation of the criteria for screening comparison practices. However, we could not apply some criteria for practices in the external regions, because data were not available.

Table H.2. Eligibility criteria for CPC practices

Eligibility criteria CMS used to select practices to participate in CPC	Criteria the evaluation applied for inclusion as a potential comparison practice
Application solicited practices composed predominantly of primary care practitioners (in specialties of family medicine, internal medicine, general practice or geriatric medicine)	Potential comparison practices must have at least one physician in the practice that specializes in family medicine, internal medicine, general practice, or geriatric medicine; percentage of practitioners with primary care specialty was also used as a matching variable
Number of assigned Medicare beneficiaries \geq 120	Applied similar criteria (number of assigned Medicare beneficiaries \geq 100) ^a
Application-reported annual revenue per practitioner of \$200,000+ (among all Medicare and non-Medicare beneficiaries)	Criterion not applied, because data were not available for comparison practices in external regions, and CMS did not apply criterion strictly in the selection process
At least 50 percent of Medicare charges were for primary care E&M codes	Criterion not applied, because CMS did not apply criterion strictly in the selection process
Application-reported practice revenue was greater than 50 percent from participating payers	Criterion not applied, because CMS did not apply criterion strictly in the selection process, and the criterion is not applicable to external comparison practices
Employer identification number must be recognized in CMS systems	TINs and NPIs are in claims data
Cannot be in Medicare shared savings program	ARC excluded potential comparison practices using the same criteria used for CPC practices

^a We used a threshold of 100 attributed Medicare beneficiaries for comparison practices, because our analysis of Medicare claims data found that some CPC practices had between 100 and 120 attributed Medicare beneficiaries. CMMI = Center for Medicare & Medicaid Innovation; E&M = evaluation and management; TIN = tax identification number; NPI = national provider identifier.

For each region, we were able to identify a pool of more than 400 potential comparison practices (Table H.3), far more than the 66 to 75 CPC practices in each region. Thus, this pool was large enough to find suitable matches for CPC practices.

C. Selecting comparison practices from the pool of potential comparison practices

We used propensity score matching (PSM) to select from the pool of potential comparison practices. PSM selects comparison practices based on a summary score encapsulating a number of matching characteristics rather than requiring a match on each characteristic. In other words,

identification numbers (TINs) and NPIs to attribute beneficiaries to potential comparison practices in the same way that they were attributed to CPC practices.

PSM facilitates the task of matching CPC and comparison practices by aggregating into a single score information contained in a range of matching variables.¹²

Table H.3 shows the number of potential comparison practices and number of CPC practices in each region. (We included in the matching the 497 practices that were participating in CPC in March 2013.)

Table H.3. Number of potential comparison practices in CPC and comparison regions

CPC region	Number of CPC practices	Potential comparison practices		
		In CPC region		In external region
		Number of nonselected practices in the CPC region that applied and were eligible for CPC	Comparison region	Total number of eligible primary care practices in external comparison region
Arkansas	69	32	Tennessee	870
Colorado	74	67	Utah, Kansas, and selected counties in New Mexico	684
New Jersey	70	96	Western and central New York and Connecticut	771
New York (Capital District-Hudson Valley)	74	26	Connecticut and western and central New York	482
Ohio/Kentucky (Greater Cincinnati)	75	75	Remaining counties in Ohio	1,401
Oklahoma (Greater Tulsa)	68	32	Remaining counties in Oklahoma	410
Oregon	67	61	Idaho and Washington	846

The propensity score matching approach helps alleviate concerns about selection bias by ensuring equivalence before the CPC intervention (at baseline) between the CPC and matched comparison groups on variables used in the matching process. However, matching still relies on observed characteristics; therefore, it cannot address bias arising from unobserved or unmeasured baseline characteristics. Past studies have shown that impact estimates based on a matched comparison group design often deviate from those obtained from an experimental evaluation (considered the gold standard) of the same intervention (Smith and Todd 2005; Peikes et al. 2008). In other words, PSM may not entirely eliminate selection bias in a non-experimental evaluation, especially when the CPC practices volunteered to receive the intervention, and it can even yield results with the wrong sign. However, when implemented carefully using the best

¹² Matching practices on a range of variables using a single summary score is advantageous, because it would be virtually impossible to find a comparison practice with the identical values of each variable for each treatment practice. Of course, if a comparison practice does match a treatment practice on every variable included in the propensity score model, the two practices would have identical propensity scores. In other words, propensity score matching may produce exact matching on some or all matching variables simultaneously, but it does not require it.

practices recommended in the literature, PSM can be effective in addressing selection bias concerns to a large extent (Rubin 2001; Dehejia and Wahba 2002; Dehejia 2005; Shadish et al. 2008). Hence, in the absence of randomization, PSM remains one of the best approaches for designing a non-experimental evaluation.¹³

The PSM steps involved in selecting the matched comparison practices from the pool of potential comparison practices for the CPC evaluation included:

1. Assembling data on matching variables for CPC and potential comparison practices
2. Using PSM to narrow down the potential comparison practices and obtain matched comparison practices for CPC practices in each CPC region
3. Performing diagnostic tests to assess the matched comparison group

Step 1: Assembling data on matching variables for CPC and potential comparison practices

Table H.4 shows the data sources and the variables included in matching. The practice-level variables from the claims data were constructed by averaging across all beneficiaries attributed to the practice.

Step 2: Using PSM to narrow down the potential comparison practices and obtain matched comparison practices for CPC practices in each CPC region

Once the data were assembled and a file containing information on each CPC and potential comparison practice was created, we estimated the propensity score model using as covariates the variables described in Table H.4. Specifically, we estimated a logit model with a binary dependent variable for participation status, one for CPC practices and zero for potential comparison practices. The predicted probabilities from this model, estimated separately by region, are the propensity scores used to match practices. Notably, PSM does not necessarily match each CPC practice to a comparison practice (or practices) with identical characteristics; rather, by matching on the score, the method finds a group of comparison practices that is on average comparable to the group of CPC practices. The propensity scores are functions of practice characteristics, region characteristics, and characteristics of the practice's attributed Medicare FFS beneficiaries.

Our PSM model prioritized matching CPC and comparison practices based on key characteristics. Within the practice characteristics, we focused on ensuring that the comparison practices matched the CPC practices especially well on two variables: (1) the meaningful use of

¹³ Additionally, the difference-in-differences approach for estimating impacts on claims-based outcome measures—whereby we compare the change over time in an outcome for beneficiaries in treatment practices to the change for beneficiaries in matched comparison practices—nets out any pre-existing differences in levels between treatment and comparison practices at baseline that were not accounted for by propensity score matching, provided they would not have changed over time in the absence of CPC. We also tested whether there were pre-existing differences in trends between CPC and comparison practices, and did not find any significant differences. The difference-in-differences analysis together with propensity score matching therefore helps eliminate biases due to unobserved differences in practice characteristics that do not change over time. However, the difference from external comparison regions leads to a sample of matched comparison practices or a counterfactual that represents *similar* practices. A difference-in-differences approach is not possible for analyses of survey outcomes, because we could not conduct a pre-CPC survey.

EHRs and (2) designation as a patient-centered medical home.¹⁴ This approach reflects the importance of those two variables for face validity as well as CMS’s selection of CPC practices from eligible applicants. To ensure an exact CPC-comparison group match in each region on meaningful use, which we deemed the most important practice characteristic given the heavy reliance by CMS on this factor when selecting the CPC practices, we used it for stratification; in one region (Colorado), we also stratified by medical home status.¹⁵ Stratification on a given characteristic means that only the potential comparison practices with that characteristic are eligible to be selected as matches for practices with that characteristic, and the propensity score model is estimated separately within each stratum.

For practices’ beneficiary characteristics, we include in the model the distribution of the mean HCC score for the Medicare FFS beneficiaries attributed to that practice and their prevalence of chronic conditions such as diabetes, to ensure that the selected comparison practices served a similar mix of beneficiaries as CPC practices. We also included variables in the propensity score model reflecting the practice’s beneficiaries’ distribution of service use and expenditures, to ensure that the two research groups would have comparable baseline values of these key outcomes.

Within the family of PSM methods, we implemented “full matching” to form matched sets that contain one CPC and multiple comparison practices or one comparison and multiple CPC practices. A “match” for a given CPC practice was identified whenever the propensity score for the potential comparison practice fell within a pre-specified range around the CPC practice’s propensity score. The important benefit of full matching is that it achieves maximum bias reduction on observed matching variables, and subject to this constraint, it maximizes the size of the comparison sample. Full matching also varies the number of comparison practices selected for each CPC practice. For example, CPC practices with a combination of characteristics that were difficult to match had relatively fewer available comparison practices with similar characteristics; thus, these practices were included in matched sets that contained (say) two CPC practices and one comparison practice. On the other hand, CPC practices that were easier to match were each matched to multiple comparisons so as to maximize the size of the analytic sample and increase statistical power. For the easy-to-match cases, we allowed as many as five comparison matches for a single CPC practice. For practices that were difficult to match, we allowed a comparison practice to serve as the match for two CPC practices. Comparison practices were weighted by the ratio of CPC to comparison practices; for example, if five comparison practices were matched to one CPC practice, each of those comparison practices would receive a weight of one-fifth. In most regions, we did not allow comparison practices to serve as the match for more than two CPC practices due to concerns about a heavily weighted

¹⁴ We could consider only PCMH recognitions that were available for both CPC practices and non-CPC practices. Thus, we included NCQA recognition in all regions and state recognition in regions for which information on state recognition was available for both CPC and non-CPC practices.

¹⁵ We did not stratify on medical-home status in every region, because stratifying by one measure makes it more difficult to achieve balance on other characteristics. Therefore, we stratified on medical-home status only where it was otherwise difficult to obtain a similar percentage of recognized medical homes in the treatment and comparison groups.

comparison practice possibly not responding to the survey, and to the adverse effect that large weights have on statistical precision and power.

Matching was performed separately by region. The process involved (1) estimating a propensity score model using all CPC and all potential comparison practices in the region; (2) calculating CPC-comparison differences along the propensity score; (3) stratifying on meaningful use of EHRs; and (4) implementing the full matching algorithm, which finds the collection of matched sets whose sum of propensity score differences is the smallest among all possible matches. The only exceptions were for the New York and New Jersey regions. To obtain the best possible matches for CPC practices in those regions, we took advantage of their geographic proximity by considering Connecticut and the non-CPC areas of New York jointly as potential comparisons for both regions (along with the nonselected applicants in these regions). We first constructed two subpools within the comparison regions: one that was most similar to the New York CPC region, and one that was most similar to the New Jersey CPC region. We then used these subpools to conduct separate matching for the New York and New Jersey regions using the same process described for other regions.

Step 3: Performing diagnostic tests

The diagnostic tests included calculating the difference between the CPC and the selected comparison group in the weighted mean values of each of the matching variables, the statistical significance of those differences, and the overall Chi-squared test statistic that tests the joint CPC-comparison difference among all matching variables. If the matching diagnostics were not satisfactory, we revised the matching in two ways. First, we allowed a given comparison practice to serve as a match for as many as three CPC practices in Oregon (instead of our usual cap of two), because the CPC practices were generally much less similar to potential comparisons. This increased ratio allowed the matching algorithm to effectively select comparison groups with comparable values of key characteristics to the CPC groups, particularly meaningful use of EHRs and whether the practice was a recognized medical home. Second, for some regions, we implemented stratification on medical-home designation (in addition to stratifying on EHR meaningful use) to ensure the CPC group and selected comparison group had comparable proportions of medical homes.

As part of our diagnostics, we produced tables (Tables H.5 through H.11) showing two types of results: (1) means for the potential comparison, CPC, and selected comparison groups and (2) differences between the CPC group means and the weighted means for the selected comparison group for all variables and distributions used in the matching process, and tests of statistical significance. Table H.12 shows the overall Chi-square test, which indicates the likelihood of observing a set of differences on the characteristics used that is as large as what was observed if the CPC and comparison practices in the matched sample were equivalent on all the matching characteristics indicated. Thus, a value of $p = 0.40$ for the Chi-squared test suggests a 40 percent chance of observing CPC-comparison differences as large as were observed on the set of matching variables in this sample of beneficiaries if the matched comparison practices were truly equivalent to the set of CPC group practices. In a typical hypothesis test, we reject the null hypothesis of equivalence only if $p < 0.05$ —that is, it is highly unlikely that the two populations are equivalent on these dimensions. Here, however, because we do not want to falsely conclude that the two groups are equivalent when they are not, we strive for a p that is as

large as possible, and always more than 0.15—that is, given the observed differences, it is well within the realm of possibility that the two groups are equivalent. Table H.12 also shows the final numbers of selected practices as well as the ratio of CPC to selected comparison practices in each matched set. For example, a ratio of 2:1 means that there were two CPC practices matched to one comparison practice.

The unweighted counts of practices in the accompanying tables reflect the number of practices (CPC and comparison) we selected through propensity score matching in each region. Our final sample includes 908 comparison practices: 658 from external regions and 250 from internal regions.

Table H.4. Propensity score matching variables and data sources

Matching variable	Data source
Practice characteristics	
Number of Medicare or Medicaid meaningful users of EHRs in the practice	CMS, 2012
Number of primary care clinicians (physicians, nurse practitioners, physician assistants)	SK&A, 2012
Percentage of clinicians at practice with primary care specialty	SK&A, 2012
NCQA or state medical home recognition status	NCQA, CPC application data, Oklahoma Sooner Care data, 2012
Whether the practice is owned by a larger organization	SK&A, 2012
Characteristics of practices' attributed Medicare beneficiaries	
Number of attributed Medicare beneficiaries	Medicare claims data, May 2010 through April 2012
Distribution of Medicare expenditures of practices' attributed beneficiaries	Medicare claims, May 2010 through April 2012
Distribution of number of hospitalizations of practices' attributed beneficiaries	Medicare claims, May 2010 through April 2012
Distribution of HCC scores of practices' attributed beneficiaries	Medicare claims and enrollment data, May 2010 through April 2012
Distribution of number of physician services received by practices' attributed beneficiaries	Medicare claims data, May 2010 through April 2012
Demographic mix of attributed beneficiaries (percentage of practice in age, race, and gender categories)	Medicare EDB, May 2010 through April 2012
Percentage of practice's attributed beneficiaries that is dually eligible for Medicaid	Medicare EDB, May 2010 through April 2012
Percentage of practice's attributed Medicare beneficiaries with selected chronic conditions (diabetes, cancer, chronic obstructive pulmonary disease, kidney disease, Alzheimer's disease, heart disease)	Medicare claims data, May 2010 through April 2012
Characteristics of practice's geographic location	
Median income of county	Area Resource File, 2009
Whether in medically underserved area	HRSA, 2009
Whether in urban area	Area Resource File, 2009
Medicare Advantage penetration rate of county	Area Resource File, 2009

EHR = electronic health record; CMS = Centers for Medicare & Medicaid Services; NCQA = National Committee for Quality Assurance; HCC = hierarchical condition category; Medicare EDB = Medicare Enrollment Database; HRSA = Health Resources and Services Administration.

Table H.5. Matching results for CPC practices in Arkansas with comparison group practices from nonselected applicants in Arkansas and external region practices in Tennessee

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	47	64	64	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	9	9	9	-1	0.900
Employs one clinician (MD or NP/PA according to SK&A)	40	34	26	-8	0.290
Employs two or three clinicians (MD/NP/PA according to SK&A)	26	27	32	5	0.560
Employs four or five clinicians (MD/NP/PA according to SK&A)	13	15	16	1	0.940
Employs six or more clinicians (MD/NP/PA according to SK&A)	20	23	26	3	0.740
Number of clinicians at practice (SK&A) ^a	4.5	5.1	3.9	-1.2	0.320
Percentage of practices' clinicians with primary care specialty (SK&A)	96	97	96	0	0.880
Is owned by larger organization (defined by SK&A data)	25	30	35	5	0.570
Log (household income in county 2009) (Area Resource File)	10.6	10.6	10.6	0.0	0.470
Medicare Advantage penetration rate in 2009 (Area Resource File)	14.5	13.1	12.1	-1.0	0.310
Located in a medically underserved area (2009 HRSA data)	47	44	43	0	0.970
Percentage of county that is urban (2009 Area Resource File)	55	55	53	-1	0.740
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	777	971	819	-151	0.360
Log (number of attributed Medicare beneficiaries)	6.18	6.34	6.38	0.04	0.800
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	25	23	24	1	0.600
Percentage male	40	41	40	0	0.790
Percentage age 50 to 64	16	16	17	1	0.530
Percentage age 65 to 74	42	43	42	-1	0.240
Percentage age 75 to 84	25	25	25	-1	0.540
Percentage age 85 or older	8	7	8	0	0.660
Percentage white	89.2	89.1	90.6	1.5	0.467
Percentage black	9.7	9.9	7.8	-2.1	0.316
Percentage Asian	0.2	0.2	0.2	0.0	0.401
Percentage Native American	0.1	0.1	0.4	0.3	0.091*
Percentage Hispanic	0.2	0.2	0.5	0.3	0.189
Percentage other	0.5	0.4	0.5	0.0	0.552

Table H.5 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Unknown race	0.1	0.1	0.1	0.0	0.114
HCC Score—mean	1.04	1.02	0.99	-0.03	0.280
Original Medicare entitlement reason is age	71	71	69	-2	0.350
Percentage of beneficiaries with diabetes	29	28	26	-2	0.040
Percentage of beneficiaries with cancer	8	8	7	0	0.510
Percentage of beneficiaries with chronic obstructive pulmonary disease	15	15	14	-1	0.270
Percentage of beneficiaries with chronic kidney disease	15	14	12	-2	0.050*
Percentage of beneficiaries with Alzheimer's disease	12	10	11	1	0.690
Percentage of beneficiaries with congestive heart failure	16	17	15	-1	0.330
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.30	0.29	0.30	0.01	0.630
Emergency department visits—mean	0.69	0.64	0.67	0.03	0.490
Number of physician services received—mean	24.41	23.94	23.32	-0.62	0.390
Log of total Medicare expenditures—mean	8.90	8.86	8.85	-0.01	0.850
Total Medicare Part A and B expenditures-mean ^a	7,643	7,283	7,158	-126	0.690

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.6. Matching results for CPC practices in Colorado with Comparison group practices from nonselected applicants in Colorado and external region practices in Kansas, New Mexico, and Utah

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	71	92	92	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	10	28	28	0	1.000
Employs one clinician (MD or NP/PA according to SK&A)	16	8	11	3	0.620
Employs two or three clinicians (MD/NP/PA according to SK&A)	31	36	31	-5	0.510
Employs four or five clinicians (MD/NP/PA according to SK&A)	20	16	27	11	0.170
Practice has six or more clinicians (MD/NP/PA according to SK&A)	34	39	31	-8	0.360
Number of clinicians at practice (SK&A) ^a	5.9	5.9	5.3	-0.6	0.560
Percentage of practices' clinicians with primary care specialty (SK&A)	95	94	95	1	0.840
Owned by larger organization (defined by SK&A data)	51	54	61	7	0.440
Log (household income in county 2009) (Area Resource File)	10.9	10.9	11.0	0.1	0.230
Medicare Advantage penetration rate in 2009 (Area Resource File)	24.0	24.8	28.3	3.5	0.110
Located in a medically underserved area (2009 HRSA data)	8	6	4	-2	0.580
Percentage of county that is urban (2009 Area Resource File)	78	76	80	3	0.410
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	728	672	558	-114	0.370
Log (number of attributed Medicare beneficiaries)	6.07	6.13	6.10	-0.04	0.810
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	16	14	12	-2	0.230
Percentage male	42	41	43	1	0.320
Percentage age 50 to 64	13	13	13	0	0.710
Percentage age 65 to 74	45	46	49	3	0.090*
Percentage age 75 to 84	26	27	25	-1	0.270
Percentage age 85 or older	9	9	8	-1	0.400
Percentage white	93.7	94.0	95.3	1.3	0.195
Percentage black	2.7	2.6	1.4	-1.2	0.109
Percentage Asian	0.7	0.5	0.5	-0.1	0.583
Percentage Native American	0.2	0.1	0.1	0.0	0.666
Percentage Hispanic	1.5	1.4	1.4	-0.1	0.866
Percentage other	1.0	1.1	1.1	0.0	0.797

Table H.6 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Unknown race	0.2	0.2	0.2	0.1	0.192
HCC Score—mean	0.95	0.93	0.89	-0.04	0.120
Original Medicare entitlement reason is age	81	82	85	2	0.160
Percentage of beneficiaries with diabetes	23	22	19	-3	0.000*
Percentage of beneficiaries with cancer	8	9	9	0	1.000
Percentage of beneficiaries with chronic obstructive pulmonary disease	11	11	10	-1	0.080
Percentage of beneficiaries with chronic kidney disease	12	12	11	-1	0.570
Percentage of beneficiaries with Alzheimer's disease	8	8	7	-1	0.380
Percentage of beneficiaries with congestive heart failure	11	11	9	-2	0.010*
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.24	0.24	0.22	-0.03	0.080*
Emergency department visits—mean	0.57	0.56	0.50	-0.06	0.150
Number of physician services received—mean	22.34	22.28	22.09	-0.19	0.760
Log of total Medicare expenditures—mean	8.84	8.84	8.79	-0.04	0.290
Total Medicare Part A and B expenditures-mean ^a	7,244	7,082	6,814	-269	0.410

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.7. Matching results for CPC practices in New Jersey with comparison group practices from nonselected applicants in New Jersey and New York and external region practices in western and central New York and Connecticut

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	57	90	90	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	25	37	39	1	0.320
Has one clinician (MD or NP/PA according to SK&A)	26	22	31	10	0.210
Has two or three clinicians (MD/NP/PA according to SK&A)	31	26	30	4	0.620
Has four or five clinicians (MD/NP/PA according to SK&A)	20	29	19	-11	0.160
Has six or more clinicians (MD/NP/PA according to SK&A)	23	23	20	-3	0.650
Number of clinicians at practice (SK&A) ^a	4.7	5.2	3.6	-1.5	0.090*
Percentage of practices' clinicians with primary care specialty (SK&A)	88	93	96	3	0.270
Owned by larger organization (defined by SK&A data)	38	45	40	-5	0.570
Log (household income in county 2009) (Area Resource File)	11.1	11.1	11.2	0.1	0.030*
Medicare Advantage penetration rate in 2009 (Area Resource File)	0.2	0.1	0.1	-1.4	0.020*
Located in a medically underserved area (2009 HRSA data)	6	3	4	1	0.820
Percentage of county that is urban (2009 Area Resource File)	85	85	91	6	0.030*
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	595	681	594	-87	0.330
Log (number of attributed Medicare beneficiaries)	6.01	6.20	6.12	-0.08	0.550
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	16	13	12	-1	0.810
Percentage male	40	40	38	-2	0.270
Percentage age 50 to 64	13	12	12	0	0.900
Percentage age 65 to 74	42	44	43	-1	0.570
Percentage age 75 to 84	29	29	29	0	0.870
Percentage age 85 or older	11	11	12	1	0.620
Percentage white	87.2	90.7	87.8	-2.9	0.225
Percentage black	8.3	4.8	6.3	1.5	0.400
Percentage Asian	0.8	0.7	1.1	0.3	0.238
Percentage Native American	0.1	0.0	0.0	0.0	0.572
Percentage Hispanic	1.7	1.7	2.8	1.1	0.314

Table H.7 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Percentage other	1.5	1.6	1.7	0.1	0.594
Unknown race	0.3	0.4	0.3	-0.1	0.011*
HCC score—mean	1.06	1.01	1.06	0.06	0.130
Original Medicare entitlement reason is age	81	84	84	0	0.780
Percentage of beneficiaries with diabetes	32	31	33	1	0.500
Percentage of beneficiaries with cancer	10	10	11	0	0.680
Percentage of beneficiaries with chronic obstructive pulmonary disease	12	11	11	0	0.770
Percentage of beneficiaries with chronic kidney disease	14	13	15	2	0.230
Percentage of beneficiaries with Alzheimer's disease	10	9	10	1	0.550
Percentage of beneficiaries with congestive heart failure	14	13	14	2	0.130
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.26	0.22	0.24	0.02	0.290
Emergency department visits—mean	0.56	0.50	0.49	-0.01	0.750
Number of physician services received—mean	28.03	27.01	29.59	2.57	0.020*
Log of total Medicare expenditures—mean	8.96	8.90	8.96	0.07	0.210
Total Medicare Part A and B expenditures-mean ^a	8,120	7,484	8,265	781	0.210

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.8. Matching results for CPC practices in New York (Capital District-Hudson Valley region) with comparison group practices from nonselected applicants in New York and New Jersey and external region practices in Connecticut and New York

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	42	81	81	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	27	35	35	1	0.940
Has one clinician (MD or NP/PA according to SK&A)	26	15	18	2	0.760
Has two or three clinicians (MD/NP/PA according to SK&A)	31	31	39	9	0.320
Has four or five clinicians (MD/NP/PA according to SK&A)	18	21	15	-6	0.360
Has six or more clinicians (MD/NP/PA according to SK&A)	25	33	28	-4	0.570
Number of clinicians at Practice (SK&A) ^a	4.8	6.2	4.9	-1.2	0.440
Percentage of practices' clinicians with primary care specialty (SK&A)	94	94	94	0	0.920
Owned by larger organization (defined by SK&A data)	38	53	43	-10	0.240
Log (household income in county 2009) (Area Resource File)	10.9	10.9	11.0	0.1	0.000*
Medicare Advantage penetration rate in 2009 (Area Resource File)	26.5	29.8	21.6	-8.2	0.000*
Located in a medically underserved area (2009 HRSA data)	5	4	7	3	0.510
Percentage of county that is urban (2009 Area Resource File)	74	73	77	4	0.360
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	465	524	533	9	0.890
Log (number of attributed Medicare beneficiaries)	5.83	5.92	6.07	0.15	0.230
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	16	16	13	-3	0.090*
Percentage male	40	41	40	-1	0.630
Percentage age 50 to 64	13	14	13	-1	0.150
Percentage age 65 to 74	40	38	40	2	0.130
Percentage age 75 to 84	29	29	29	1	0.340
Percentage age 85 or older	11	11	11	0	0.780
Percentage white	93.1	93.8	91.6	-2.2	0.126
Percentage black	4.4	3.8	5.2	1.4	0.157
Percentage Asian	0.5	0.5	0.6	0.1	0.515
Percentage Native American	0.1	0.1	0.0	0.0	0.082*
Percentage Hispanic	0.6	0.5	1.0	0.5	0.281

Table H.8 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Percentage other	1.0	1.1	1.2	0.2	0.380
Unknown race	0.3	0.3	0.3	0.0	0.383
HCC score—mean	1.03	1.04	1.04	0.00	0.960
Original Medicare entitlement reason is age	78	76	79	3	0.070*
Percentage of beneficiaries with diabetes	31	30	30	0	0.880
Percentage of beneficiaries with cancer	10	10	10	0	0.350
Percentage of beneficiaries with chronic obstructive pulmonary disease	12	13	12	-1	0.330
Percentage of beneficiaries with chronic kidney disease	13	13	13	0	0.730
Percentage of beneficiaries with Alzheimer's disease	9	10	9	-1	0.420
Percentage of beneficiaries with congestive heart failure	13	13	13	0	0.850
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.24	0.24	0.25	0.02	0.270
Emergency department visits—mean	0.54	0.55	0.54	-0.01	0.850
Number of physician services received—mean	25.65	24.93	27.2	2.29	0.020*
Log of total Medicare expenditures—mean	8.81	8.79	8.86	0.07	0.120
Total Medicare Part A and B expenditures—mean ^a	6,961	6,847	7,325	478	0.240

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.9. Matching results for CPC practices in Ohio/Kentucky (Cincinnati-Dayton region) with comparison group practices from nonselected applicants and external region practices in Ohio

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	26	100	100	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	6	49	57	8	0.320
Has one clinician (MD or NP/PA according to SK&A)	40	13	11	-3	0.610
Has two or three clinicians (MD/NP/PA according to SK&A)	35	51	39	-12	0.150
Has four or five clinicians (MD/NP/PA according to SK&A)	13	16	33	17	0.030*
Has six or more clinicians (MD/NP/PA according to SK&A)	12	20	17	-3	0.650
Number of clinicians at practice (SK&A) ^a	3.8	4.9	4.6	-0.3	0.480
Percentage of practices' clinicians with primary care specialty (defined by SK&A)	95	95	93	-2	0.280
Owned by larger organization (defined by SK&A data)	27	53	57	4	0.630
Log (household income in county 2009) (Area Resource File)	10.7	10.8	10.8	0.0	0.810
Medicare Advantage penetration rate in 2009 (Area Resource File)	26	27	27	0	0.990
Located in a medically underserved area (2009 HRSA data)	8	0	0	0	1.000
Percentage of county that is urban (2009 Area Resource File)	74.0	86.4	86.7	0.4	0.880
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	391	564	595	31	0.660
Log (number of attributed Medicare beneficiaries)	5.68	6.05	6.18	0.13	0.240
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	24	14	14	0	0.980
Percentage male	42	41	41	0	0.920
Percentage age 50 to 64	15	13	13	0	0.620
Percentage age 65 to 74	39	44	44	0	0.670
Percentage age 75 to 84	27	28	27	-1	0.550
Percentage age 85 or older	10	10	9	-1	0.360
Percentage white	90.5	93.9	93.6	-0.3	0.856
Percentage black	7.9	4.7	5.0	0.3	0.830
Percentage Asian	0.4	0.4	0.4	0.0	0.817
Percentage Native American	0.0	0.0	0.0	0.0	0.842
Percentage Hispanic	0.3	0.2	0.1	-0.1	0.177

H.20

Table H.9 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Percentage other	0.6	0.6	0.6	0.1	0.510
Unknown race	0.2	0.2	0.2	0.0	0.776
HCC Score—mean	111	103	102	-2	0.430
Original Medicare entitlement reason is age	73	80	80	-1	0.650
Percentage of beneficiaries with diabetes	33	29	29	0	0.670
Percentage of beneficiaries with cancer	8	9	9	0	0.640
Percentage of beneficiaries with chronic obstructive pulmonary disease	17	13	13	0	0.550
Percentage of beneficiaries with chronic kidney disease	16	16	15	0	0.550
Percentage of beneficiaries with Alzheimer's disease	10	9	8	-1	0.180
Percentage of beneficiaries with congestive heart failure	16	14	13	-0.01	0.320
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.32	0.30	0.28	-0.02	0.080
Emergency department visits—mean	0.78	0.62	0.60	-0.01	0.670
Number of physician services received—mean	24.03	24.35	23.51	-0.84	0.170
Log of total Medicare expenditures—mean	8.95	8.91	8.87	-0.03	0.250
Total Medicare Part A and B expenditures-mean ^a	8,059	7,578	7,237	-340	0.150

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.10. Matching results for CPC practices in Oklahoma (Greater Tulsa Region) with comparison group practices from nonselected applicants and external region practices in Oklahoma

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	36	50	50	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	42	49	47	-2	0.830
Has one clinician (MD or NP/PA according to SK&A)	25	19	19	0	0.981
Has two or three clinicians (MD/NP/PA according to SK&A)	29	27	31	4	0.624
Has four or five clinicians (MD/NP/PA according to SK&A)	24	33	32	0	0.974
Has six or more clinicians (MD/NP/PA according to SK&A)	22	21	18	-4	0.573
Number of clinicians at practice (SK&A) ^a	4.6	4.6	4.2	-0.4	0.635
Percentage of practices' clinicians with primary care specialty (SK&A)	89	93	91	-2	0.529
Owned by larger organization (defined by SK&A data)	55	74	74	0	1.000
Log (household income in county 2009) (Area Resource File)	10.6	10.6	10.7	0.0	0.078*
Medicare Advantage penetration rate in 2009 (Area Resource File)	16	19	23	4	0.008*
Located in a medically underserved area (2009 HRSA data)	23	23	15	-8	0.143
Percentage of county that is urban (2009 Area Resource File)	70.4	68.6	72.1	3.5	0.493
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	686	782	657	-125	0.211
Log (number of attributed Medicare beneficiaries)	6.12	6.32	6.22	-0.10	0.465
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	20	18	20	1	0.616
Percentage male	41	41	40	-1	0.478
Percentage age 50 to 64	16	14	16	2	0.090*
Percentage age 65 to 74	45	45	44	-1	0.533
Percentage age 75 to 84	25	26	24	-2	0.147
Percentage age 85 or older	7	7	7	0	0.937
Percentage white	85.9	85.8	84.1	-1.7	0.543
Percentage black	4.5	4.4	4.1	-0.3	0.784
Percentage Asian	0.8	0.5	0.4	-0.1	0.746
Percentage Native American	7.7	8.2	10.4	2.2	0.446
Percentage Hispanic	0.4	0.3	0.3	0.0	0.875
Percentage other	0.6	0.6	0.5	-0.1	0.535

Table H.10 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Unknown race	0.1	0.1	0.1	0.0	0.899
HCC Score—mean	100	99	98	-1	0.702
Original Medicare entitlement reason is age	75	76	74	-2	0.274
Percentage of beneficiaries with diabetes	30	30	29	-1	0.618
Percentage of beneficiaries with cancer	8	8	7	0	0.187
Percentage of beneficiaries with chronic obstructive pulmonary disease	15	14	13	-1	0.262
Percentage of beneficiaries with chronic kidney disease	14	14	14	0	0.821
Percentage of beneficiaries with Alzheimer's disease	9	8	8	0	0.618
Percentage of beneficiaries with congestive heart failure	15	15	14	-1	0.105
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.29	0.30	0.29	0.00	0.905
Emergency department visits—mean	0.67	0.63	0.62	-0.01	0.820
Number of physician services received—mean	21.93	21.69	22.26	0.57	0.442
Log of total Medicare expenditures—mean	8.91	8.89	8.87	-0.02	0.640
Total Medicare Part A and B expenditures-mean ^a	7,679	7,398	7,337	-60	0.850

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.11. Matching results for CPC practices in Oregon with comparison group practices from nonselected applicants in Oregon and external region practices in Idaho and Washington

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Practice characteristics (percentage, unless noted)					
Has Medicare meaningful EHR users as of June 2012	43	72	72	0	1.000
Is state- or NCQA-recognized medical home by fall 2012	20	46	61	15	0.010*
Has one clinician (MD or NP/PA according to SK&A)	7	6	3	-3	0.530
Has two or three clinicians (MD/NP/PA according to SK&A)	20	24	18	-6	0.450
Has four or five clinicians (MD/NP/PA according to SK&A)	23	19	28	10	0.300
Has six or more clinicians (MD/NP/PA according to SK&A)	51	52	51	-1	0.920
Number of clinicians at practice (SK&A) ^a	12.0	9.8	8.5	-1.26	0.600
Percentage of practices' clinicians with primary care specialty (SK&A)	88	90	93	3	0.380
Owned by larger organization (defined by SK&A data)	71	72	76	4	0.630
Is critical access hospital	0.03	0.03	0.03	0.00	1.000
Log (household income in county 2009) (Area Resource File)	10.8	10.8	10.8	0.0	0.340
Medicare Advantage penetration rate in 2009 (Area Resource File)	39	39	48	9	0.000*
Located in a medically underserved area (2009 HRSA data)	18	22	9	-13	0.090*
Percentage of county that is urban (2009 Area Resource File)	80	80	83	3	0.270
Characteristics of beneficiaries attributed to practices between May 2010 and April 2012					
Count of attributed Medicare beneficiaries ^a	806	682	707	24	0.860
Log (number of attributed Medicare beneficiaries)	6.27	6.10	6.26	0.16	0.330
Percentage of the practice's beneficiaries who are dually eligible for Medicaid	18	19	19	0	0.970
Percentage male	44	45	43	-1	0.250
Percentage age 50 to 64	14	15	16	1	0.530
Percentage age 65 to 74	44	43	43	0	0.890
Percentage age 75 to 84	26	25	24	-1	0.460
Percentage age 85 or older	10	10	11	1	0.390
Percentage white	94.4	95.0	93.2	-1.8	0.169
Percentage black	1.3	1.2	2.4	1.2	0.264
Percentage Asian	1.3	1.1	1.3	0.2	0.443
Percentage Native American	0.6	0.6	0.6	0.0	0.785
Percentage Hispanic	0.6	0.6	0.8	0.2	0.210

H.24

Table H.11 (continued)

Variable name	Potential comparison group mean	Selected comparison group mean	CPC group mean	Difference between means of CPC and selected comparison group	p-value
Percentage other	1.5	1.3	1.5	0.2	0.284
Percentage unknown race	0.2	0.2	0.3	0.0	0.734
HCC score—mean	1.00	0.99	0.97	-0.01	0.680
Original Medicare entitlement reason is age	79	77	77	0	0.970
Percentage of beneficiaries with diabetes	26	26	24	-2	0.070*
Percentage of beneficiaries with cancer	9	8	8	0	0.990
Percentage of beneficiaries with chronic obstructive pulmonary disease	10	10	9	-1	0.140
Percentage of beneficiaries with chronic kidney disease	15	15	15	0	0.600
Percentage of beneficiaries with Alzheimer's disease	9	9	9	0	0.850
Percentage of beneficiaries with congestive heart failure	12	12	12	0	0.650
Annualized Medicare expenditures and service use January 2010 through February 2012 among beneficiaries attributed between May 2010 and April 2012					
Inpatient hospital visits—mean	0.22	0.21	0.21	0.00	0.880
Emergency department visits—mean	0.58	0.58	0.58	0.00	0.950
Number of physician services received—mean	21.19	21.53	20.21	-1.33	0.050*
Log of total Medicare expenditures—mean	8.78	8.77	8.75	-0.02	0.630
Total Medicare Part A and B expenditures-mean ^a	6,841	6,575	6,416	-160	0.570

^a We include this version of the measure for descriptive purposes, but it was not included in the Chi-square test reported on Table H.12.

*Indicates p-value for difference between CPC practices and selected comparison practices is less than 0.1.

EHR = electronic health record; NCQA = National Committee for Quality Assurance; MD = medical doctor; NP = nurse practitioner; PA = physician assistant; HRSA = Health Resources and Services Administration; HCC = hierarchical condition category.

Table H.12. Matching details and diagnostics

	Arkansas	New York (Capital District– Hudson Valley)	Oregon	Colorado	New Jersey	Ohio/Kentucky (Cincinnati– Dayton)	Oklahoma (Greater Tulsa)
Matching details and diagnostics							
Chi-squared statistic	35	40	38	32	42	25	30
Chi-squared <i>p</i> -value	0.454	0.267	0.321	0.570	0.187	0.859	0.672
Number of matched sets in which the ratio of CPC practices to matched comparison practices is:							
3:1	0	0	11	0	0	0	0
2:1	12	21	1	19	19	22	14
1:1	17	18	12	17	18	5	19
1:2	0	1	0	1	0	1	1
1:3	0	1	0	1	0	0	0
1:4	1	2	1	0	2	4	0
1:5	27	10	19	17	12	21	20
Number of potential external comparison region practice sites	870	482	846	684	771	1,401	410
Number of potential internal comparison region practice sites	32	26	61	67	96	75	32
Number of CPC practices	69	74	67	74	70	75	68
Number of matched comparison practices from external region	143	87	76	85	46	114	107
Number of matched comparison practices from internal region	25	15	47	41	59	36	28
Total CPC and comparison practice sites (unweighted)	237	176	190	222	175	225	203
Total CPC and comparison practice sites (weighted)	138	148	134	148	140	150	136

Our approach achieved comparison groups in each region that have similar characteristics to the CPC practices in each region and CPC-wide. Some differences in individual characteristics are statistically significant due to the large sample sizes and small variance across practices, but are small in magnitude. Others, most often the Medicare Advantage penetration rate and the income of the county, show slightly bigger differences, most likely reflecting the different regions. Our planned use of regression analyses to estimate CPC's effects should be sufficient to control for the influence of any of these modest remaining differences between the CPC and comparison groups.

This page has been left blank for double-sided copying.

APPENDIX I:

**IMPACTS METHODS: MODEL ESTIMATION, SAMPLE,
AND MEASURES SPECIFICATION**

This page has been left blank for double-sided copying.

This appendix describes the estimation approach, analysis sample, and outcome measures used in the impact analysis. Our analytic approach for claims-based measures uses difference-in-differences (DD) regressions to compare trends in outcomes over time before CPC (that is, the pre-intervention period) and after CPC (the post-period, or the time after CPC began) for the Medicare FFS beneficiaries attributed to CPC practices and those attributed to comparison practices. DD models net out any pre-existing differences between CPC and comparison practices at baseline that were not accounted for by propensity-score matching—provided they would not have changed over time in the absence of CPC. Hence, the DD analysis together with propensity-score matching should help eliminate biases due to unobserved differences in practice characteristics that do not change over time.

In the fourth annual report to CMS, we estimate annual impacts separately for the four years of CPC. Here, we detail our approach to the annual impact analysis. Our quarterly reports to CMS estimate quarterly impacts using a similar approach, but with quarterly instead of annual observations on outcomes.

For the annual impact analysis, we use a DD approach with treatment effects varying by year; that is, we obtain annual impact estimates for each intervention year included in the model. Let A_t denote a year for $t = 1, 2, \dots, T_e$ where T_e is the most recent intervention year included in the sample. In estimating annual impacts, we include data for beneficiaries in CPC and matched comparison practices for the year immediately preceding the start of CPC and for as many intervention years for which data are available for an annual report to CMS (Table I.1). We also estimate the cumulative impact of CPC over the entire intervention period by using the same DD approach, and a single intervention indicator for all four CPC years combined.

Table I.1. Time period (year) definitions for the annual impact analysis: an illustration up to the fourth intervention year

Calendar period	Description	Time period (t) in the regression model
October 2011–September 2012	Pre-intervention year	1
October 2012–September 2013	First intervention year	2
October 2013–September 2014	Second intervention year	3
October 2014–September 2015	Third intervention year	4
October 2015–December 2016	Fourth intervention year	5

Note: To ensure consistency in the impact analysis, we assume an October 2012 start date for all CPC regions, although the intervention actually started in November 2012 for five CPC regions: New York’s Capital District–Hudson Valley region, New Jersey, Colorado, Oregon, and Ohio and Kentucky’s Cincinnati–Dayton region. Because CPC continued through December 2016, the fourth intervention year consists of 5 quarters, or 15 months.

All four pre-intervention quarters, that is, the year immediately preceding the start of CPC, serve as the reference or omitted category for obtaining the DD impact estimates; that is, the impact estimate in any intervention year is the CPC-comparison difference in an outcome in the intervention year minus the average CPC-comparison difference across the pre-intervention year.

Our main estimation approach, therefore, relies on using a separate time dummy for each intervention year and its interactions with the treatment (CPC) indicator (Equation [1]).

$$(1) Y_{ijt} = \alpha + \beta.X_{ij} + \mu.P_j + \tau.treatment_j + \sum_{t=2}^{T_e} \gamma_t.A_t + \sum_{t=2}^{T_e} \theta_t.treatment_j.A_t + \varepsilon_{ijt}$$

where:

- Y = outcome variable for beneficiary i , in practice j , in year t .
- X = vector of beneficiary-level controls measured in the pre-intervention period, such as demographics (age categories, race categories, gender), variables capturing Medicare and Medicaid eligibility (original reason for Medicare eligibility, dual status), and hierarchical condition category (HCC) score.
- P = vector of practice-level controls measured in the pre-intervention period. It includes practice characteristics such as patient-centered medical home status; whether any clinicians in a practice meet CMS's meaningful use criteria for EHRs; practice size categories, as measured by the number of clinicians (physicians, nurse practitioners, and physician assistants); having multiple specialties; ownership by a larger organization; and characteristics of the county where the practice is located, including the Medicare Advantage penetration rate, median household income, percentage urban, and status as a medically underserved area (MUA).
- $treatment$ = binary indicator of treatment status or of being in a CPC practice.
- A_t = year (time) indicators, going from the first intervention year in the data ($t = 2$) to the last intervention year ($t = T_e$) included in the model, with the pre-intervention year ($t = 1$) serving as the reference category. The coefficients in these year dummies capture changes experienced by the comparison group in each intervention year relative to the pre-intervention year. Note that instead of using a linear time trend, the use of year dummies allows for a more flexible specification where no assumption of linearity is imposed.
- ε_{ijt} = the idiosyncratic error term.

The model, therefore, separately estimates a coefficient on the treatment indicator (τ), which is the CPC-comparison difference in an outcome in the pre-intervention year, coefficients on the time dummies (γ_t) capturing intervention changes in the comparison group over time, and the DD impact estimates—that is, the coefficients on the $treatment.A_t$ interactions we explain in the next subsection. Thus, we are essentially measuring impacts as the (regression-adjusted) change in outcomes in an intervention year relative to the pre-intervention year for the beneficiaries attributed to treatment group practices minus changes in outcomes for beneficiaries attributed to the matched comparison practices for the same intervention year.

A. Interpretation of the interaction terms in the equation

The set of interaction terms ($\theta_t.treatment_j.A_t$) captures CPC-comparison differences for each intervention year relative to the average treatment-comparison difference in the pre-intervention year. The term θ_t indicates the year-specific impact estimates that capture whether the intervention made a difference to an outcome of interest during the intervention period.¹⁶ By estimating Equation (1) for the annual impact analysis, we obtain DD estimates for each year of CPC as well as predicted means for pre-intervention and intervention periods, by treatment status. Table I.2 shows how the regression-adjusted CPC and comparison means and DD impact estimates are obtained from Equation (1) for the pre-intervention year and for each intervention year. These impact estimates and adjusted means, by treatment status, are presented in the annual reports to CMS.¹⁷ The example below applies to a linear regression model. For non-linear regressions, we use post-estimation predictions to estimate marginal effects and DD estimates on the natural scale.

Table I.2. CPC and comparison group means for outcomes based on the DD analysis in Equation (1): a stylized representation

Year	Comparison group mean	CPC group mean	Difference in CPC-comparison means	DD impact estimate
Pre-intervention year [reference period]	α	$\alpha + \tau$	τ	n.a.
First intervention year (A_2)	$\alpha + \gamma_2$	$\alpha + \tau + \gamma_2 + \theta_2$	$\tau + \theta_2$	θ_2
Second intervention year (A_3)	$\alpha + \gamma_3$	$\alpha + \tau + \gamma_3 + \theta_3$	$\tau + \theta_3$	θ_3
Third intervention year (A_4)	$\alpha + \gamma_4$	$\alpha + \tau + \gamma_4 + \theta_4$	$\tau + \theta_4$	θ_4
Fourth intervention year (A_5)	$\alpha + \gamma_5$	$\alpha + \tau + \gamma_5 + \theta_5$	$\tau + \theta_5$	θ_5

Note: To highlight the key coefficients in the equation above, we exclude the coefficients on beneficiary characteristics and the practice characteristics in the expressions for the CPC and comparison group means in this table, especially because they are differenced out from the final DD estimates.

DD = difference in differences. n.a. = not applicable.

¹⁶ As we explain below, we follow an *intent-to-treat* approach and hold beneficiaries' attribution status fixed at the first practice they are attributed to in the intervention period. This method applies to beneficiaries in both treatment and comparison practices, unless the beneficiaries die, lose Medicare FFS eligibility, or move out of the CPC region, in which cases we stop following them. Also, for beneficiaries initially attributed to matched comparison practices, a change in attribution from a comparison to a treatment practice is incorporated in the sample beginning with the quarter in which that switch happens. We detail this situation in Section D.

¹⁷ In a separate specification, we also estimate the average impact over the entire intervention period by including a single time dummy for all intervention years together and its interaction with the treatment indicator.

B. Control variables in the model

The model controls for both beneficiary and practice characteristics measured at baseline—that is, before the start of CPC (Table I.3).

Controlling for the same practice characteristics that were used in matching CPC and comparison practices at baseline ensures that any remaining imbalance in those matching variables was accounted for in generating the DD impact estimates. Note, however, that we cannot control for inherent, unmeasured differences between the CPC and matched comparison practices or account for practice characteristics that vary over time if those characteristics are potentially affected by the intervention.

All regressions control for beneficiary characteristics in the pre-intervention period, such as demographics (age categories, race categories, gender), variables capturing Medicare and Medicaid eligibility (original reason for Medicare eligibility, dual status), and HCC score. In addition, in the readmission and follow-up visit equations, we control for certain discharge-level factors—specifically, indicators for 31 condition categories identified in inpatient episodes of care during the 12 months prior to the index admission as well as those indicators present at admission. We do not control for diagnoses that may have been a complication of care during the index admission. We also control for indicators for the specialty cohort to which the principal diagnosis or procedure associated with the index discharge belonged. The four cohorts for which we include indicator variables in the model, with one serving as the reference category, are (1) medicine, (2) surgery, (3) cardiorespiratory or cardiovascular, and (4) neurology.¹⁸ For the ED revisit model, which is estimated at the beneficiary-level, we additionally control for 24 baseline chronic condition indicators, defined by applying the claims-based Chronic Conditions Warehouse algorithm on Medicare claims.

¹⁸ The 31 condition categories include a range of diagnoses or risk factors, such as severe infection, metastatic cancer/acute leukemia, diabetes mellitus, end-stage liver disease, drug and alcohol disorders, congestive heart failure, chronic obstructive pulmonary disease, ulcers, cardiorespiratory failure or cardiorespiratory shock, acute renal failure, transplants, hip fracture/dislocation, and more. We base our approach on reviewing standard models in the literature for risk-adjusting the likelihood of readmission, although it differs from other models in that we do not estimate a separate readmission equation for each specialty cohort, given our goal of estimating the impact of the intervention on the risk of unplanned readmission versus estimating a risk-adjusted readmission rate for each cohort.

Table I.3. Beneficiary- and practice-level control variables for the DD regressions

Domain	Variables
Beneficiary-level control variables measured before the start of CPC	
Demographics	Age categories <65 (reference category) 65–74 75–84 ≥85 Race categories White (reference category) Black American Indian/Alaskan native Other Gender (binary indicator for male)
Original reason for Medicare eligibility	Eligibility categories Age (reference category) Disability only ESRD only or ESRD with disability
Dual eligibility	Indicator for dual status (whether enrolled in Medicaid)
Risk score	HCC score (continuous variable, based on 2012 scores for intervention years and on 2011 scores for the pre-intervention year; missing score imputed using the average HCC score) Indicator for whether HCC score was imputed
Practice-level control variables measured before the start of CPC	
Characteristics of the practice	Clinician (physician or NP/PA) count categories One Two to three Four to five Six or more Has NCQA or state medical home recognition (binary indicator) Presence of any clinician in the practice who meets CMS's criteria for meaningful use of EHRs (binary indicator) Having multiple specialties (binary indicator) Ownership by a medical group or health system (binary indicator)
Characteristics of the practice's county	Medicare Advantage penetration rate (continuous) Median household income (continuous) Percentage urban (continuous) Whether in an MUA (binary indicator)

DD = difference in differences; EHR = electronic health record; ESRD = end-stage renal disease; HCC = hierarchical condition category; MUA = medically underserved area; NCQA = National Committee for Quality Assurance; NP = nurse practitioner; PA = physician assistant.

C. Model estimation

We estimate the equations above separately for each outcome of interest, accounting for the clustering of standard errors at the practice level. The same model is used for obtaining both region-specific and pooled impact estimates across all seven CPC regions.

For estimating differential impacts for the subgroup of high-risk beneficiaries, we estimate separate models for beneficiaries in the highest risk quartile based on the distribution of the HCC score.

For Medicare expenditures with and without care management fees and for the continuity of care measures (described in Section E), we estimate a linear regression. For the service utilization outcomes (hospitalizations, emergency department [ED] visits, ambulatory care-sensitive conditions [ACSC] admissions, physician visits), which are measured as utilization counts per 1,000 beneficiaries per year, we use maximum likelihood models that are appropriate for count variables. Specifically, to account for overdispersion in utilization counts, we use negative binomial models for utilization outcomes such as physician visits, and to account for both overdispersion and the large percentage of zeroes (beneficiaries with no utilization during a year), we use a zero-inflated negative binomial model for service utilization outcomes that have a large percentage of zeroes, such as hospitalizations and ED visits.¹⁹ For modeling the likelihood of an unplanned readmission within 30 days following a discharge, the likelihood of a follow-up visit within 14 days of a discharge, and the likelihood of an ED revisit within 30 days of an outpatient ED visit, we use separate logistic regressions. We also use logistic regressions for the binary quality-of-care measures for beneficiaries with diabetes included in the annual analysis.

We do not adjust significance levels to account for all the hypothesis tests we conducted, because we do not want to increase the likelihood of failing to identify a true intervention effect. Instead, because total Medicare expenditures is the most important measure and encompasses effects on all services and expenditures by type of service, we treat it as the primary outcome, for which we use a 0.10 significance level from a two-tailed test. Other outcomes are secondary. Therefore, we rely on a combination of the size, significance level, and patterns of findings across related measures, over time, and across regions, to assess whether statistically significant impact estimates are likely due to chance or true effects of CPC. That is, in interpreting the test results, we do not rely exclusively on p-values to draw inferences about whether an estimated effect is “real.” We also, in some cases, provide context by using the Gelman and Carlin (2014) approach to calculate the expected degree to which a statistically significant estimate “exaggerates” the magnitude of the true impact.

D. Weighting

For each beneficiary in each year, we calculate fractional eligibility weights that capture the share of months eligible during the year, defined as months alive and enrolled in Part A and Part B Medicare with Medicare as primary payer and months not in a Medicare health maintenance organization (HMO) or Medicare Advantage. Eligibility weights for the baseline period are further adjusted by the proportion of months observed during the intervention period. For beneficiaries in the comparison group, the eligibility weight is multiplied by a practice-level matching weight to obtain a composite final weight. This matching weight for each comparison group practice is obtained by multiplying the base practice-level matching weight (that adjusts

¹⁹ The zero-inflated negative binomial model relies on the assumption that the excessive zeroes are generated by a separate process from the count values, and they can be independently modeled using a binary outcome model, such as a logit model.

for the number of comparison practices matched to each CPC practice) by the ratio of the average number of beneficiaries in CPC practices in the matched set to the number of beneficiaries in that comparison practice, based on baseline attribution. Constructing a practice-level matching weight in this manner ensures that the weighted number of beneficiaries in CPC practices in a matched set is equal to the weighted number of beneficiaries across all comparison practices in that same matched set. For beneficiaries in the CPC group, only the eligibility weight is needed, because the matching weight is one. Regressions that have a continuous, claims-based measure as the dependent variable incorporate these final composite weights for beneficiaries in CPC and comparison practices in each year. Binary outcome measures in the annual impact analysis, such as quality-of-care outcomes for beneficiaries with diabetes, incorporate only the matching weight. Similarly, the regressions for the likelihood of readmission and for the likelihood of 14-day follow-up visits, which are at the discharge level with each index discharge having a 30-day or 14-day follow-up or exposure period, incorporate only the matching weight. (The same applies for the regression for ED revisit that is estimated at the beneficiary-level.)

E. Beneficiary sample

We base our analysis on an intent-to-treat approach applied to the quarterly lists of Medicare FFS beneficiaries attributed to CPC and comparison practices; that is, beneficiaries who are attributed to a practice (CPC or comparison) during any of the intervention quarters (or year) remain in our sample during all subsequent intervention quarters (or years), as long as they meet the eligibility criteria (alive and enrolled in Part A and Part B Medicare with Medicare as the primary payer and not in an HMO). The beneficiary sample for the annual analysis is simply an aggregate of the quarterly samples for the pre-intervention and intervention periods. For instance, any beneficiary who appears in the sample for one or more intervention quarters in the quarterly analysis is included in the samples for both the pre-intervention and intervention years in the annual analysis. We follow outcomes in the annual analysis from the month corresponding to the first quarter of Medicare eligibility in the pre-intervention period and from the month corresponding to the first quarter of attribution in the intervention period.

During the intervention period, the sample changes slightly from one year to another as new beneficiaries are attributed to practices and some previously attributed beneficiaries drop out due to death, joining a Medicare Advantage plan, or losing Medicare eligibility. Also, this approach accommodates the possibility of beneficiaries switching practices during the intervention period, with clear criteria for dealing with specific cases, based on the intent-to-treat analysis approach. We describe these criteria below.

For beneficiaries initially attributed to CPC practices, we follow an intent-to-treat rule of once in treatment, always in treatment, until the end of the initiative, unless the beneficiary dies, loses Medicare fee-for-service (FFS) eligibility, or moves out of the CPC region, in which cases we will stop following that beneficiary. For example, if beneficiaries are attributed to a CPC practice in the first two quarters of the initiative but are attributed to a matched comparison practice in the third quarter, we continue to keep them aligned with the CPC practice they were originally attributed to in subsequent quarters and years, as long as they meet the Medicare enrollment criteria. Similarly, beneficiaries who were attributed to a CPC practice in the first two quarters of the initiative but not attributed to either a CPC or a comparison practice from the third quarter onward continue to be in our CPC group sample for all subsequent CPC quarters or

years, and aligned with the same CPC practice they were originally attributed to, as long as they are alive, enrolled in Medicare FFS, and in the same CPC region. If beneficiaries switch from one CPC practice to another CPC practice, we once again hold their attribution status fixed at the first CPC practice to which they were attributed. In contrast, if beneficiaries die, lose Medicare FFS eligibility, or move out of a CPC region without being attributed to any other practice, we truncate their observation at the end of the last year when they met all eligibility criteria.

For beneficiaries attributed to matched comparison practices, we incorporate a change in attribution from a comparison to a CPC practice in the sample beginning with the year in which that switch occurs. Finally, for beneficiaries who switch from one comparison practice to another comparison practice or from a comparison practice to not being attributed, we hold attribution status fixed at the comparison practice where the beneficiaries were originally attributed (as in the case of beneficiaries in CPC practices), as long as they are alive, enrolled in Medicare FFS, and in the same comparison region.

We do not run attribution separately for the *pre-intervention* period. Instead, we look back to the baseline period for the same sample of beneficiaries who were attributed during the intervention period. For instance, if for a particular annual report, we have data for four intervention years, the sample of beneficiaries during the pre-intervention year is an aggregate of *all* beneficiaries attributed to CPC or matched comparison practices during all intervention years. Beneficiaries' practice affiliation during the pre-intervention year is based on their actual practice affiliation (the practice to which they were first attributed) during the demonstration period, as long as they were eligible for Medicare in the pre-intervention period. Hence, the sample of beneficiaries during the pre-intervention year is composed of beneficiaries attributed to all CPC and comparison practices during the intervention period, up to the most recent intervention year included in the model, and limited to those who were also enrolled in Medicare FFS during the pre-intervention year.

We prefer this approach of creating the baseline sample of beneficiaries for the pre-intervention year based on beneficiary assignments during the intervention years. It avoids the costly and time-intensive option of replicating the attribution algorithm for both CPC and matched comparison practices during each of the four pre-intervention quarters we include in our model, and it allows us to follow a similar set of beneficiaries over time from the pre-intervention to the intervention periods.

A potential issue in defining the pre-intervention sample using the cumulative beneficiary samples from the intervention period is that Medicare expenditures register an upward shift in the intervention years due to the well-documented high average expenditures during the last six months before death. Because the beneficiary sample in the pre-intervention year is composed of beneficiaries who are actually attributed during the intervention period, no deaths occur during the pre-intervention period. Consequently, average expenditures are lower during the pre-intervention year. Note, however, that this finding is unlikely to be a major concern, because any increase in expenditures due to high end-of-life costs are likely to occur for beneficiaries in both CPC and comparison practices, unless the intervention has a significant impact on lowering mortality or improving survival among beneficiaries in CPC practices, which should be reflected in the expenditure impact estimates. The DD estimates for the impact of the initiative should remain valid.

F. Measures specification

In this section, we define the key measures used in this report. Table I.4 shows which measures we used in the annual impact analysis.

Table I.4. Medicare claims-based outcome measures for the fourth annual report to CMS

Medicare expenditures and service use
Total Medicare expenditures (with and without care management fees) PBPM
Total Medicare expenditures, by service category (inpatient, outpatient, physician, DME, SNF, home health, hospice) PBPM
Physician expenditures, by PCP versus specialist visits (subcategory of physician expenditures) PBPM
Number of hospitalizations per 1,000 beneficiaries per year
Number of ED visits per 1,000 beneficiaries per year
Number of outpatient ED visits per 1,000 beneficiaries per year
Number of observation stays per 1,000 beneficiaries per year
Number of PCP visits (total and office-based) per 1,000 beneficiaries per year
Number of specialist visits (total and office-based) per 1,000 beneficiaries per year
Quality-of-care process measures for beneficiaries with diabetes
HbA1c testing (yes/no)
Eye exam (yes/no)
Urine protein testing (yes/no)
All three tests received (yes/no)
None of the three tests received (yes/no)
Continuity of care measures
Continuity of care: percentage of primary care visits at attributed practice
Continuity of care: percentage of all office visits at attributed practice
Continuity of care: Bice-Boxerman Index based on primary care visits
Continuity of care: Bice-Boxerman Index based on all office visits
Transitional care measure
Likelihood of a follow-up visit within 14 days of a hospital discharge
Quality-of-care outcome measures
Number of ACSC admissions per 1,000 beneficiaries per year
Likelihood of an unplanned readmission within 30 days of a hospital discharge
Likelihood of an ED revisit within 30 days of an outpatient ED visit

DME = durable medical equipment; ED = emergency department; SNF = skilled nursing facility; PCP = primary care physician; PBPM = per beneficiary per month.

- Medicare FFS expenditures per month for all services (excluding Part D prescription drugs) this reporting period excluding care management fees.** Total FFS Medicare expenditures per month for Part A and Part B covered services during a pre-intervention or intervention year. The expenditure measure includes Medicare payments only, excluding third-party and beneficiary liability payments.

- **Medicare FFS expenditures per month for all services (excluding Part D prescription drugs) this reporting period, including care management fees.** Total FFS Medicare expenditures per month for Part A and Part B covered services plus the CPC Medicare FFS care management fees, which were set to average \$20 per beneficiary per month (PBPM) during the first nine quarters of CPC (\$8 PBPM in the lowest risk quartile, \$11 for beneficiaries in the second risk quartile, \$21 for beneficiaries in the third risk quartile, and \$40 for beneficiaries in the highest risk quartile), and set to average \$15 PBPM beginning January 2015 in quarter 10 (\$6, \$8, \$16, \$30 PBPM for beneficiaries in the lowest, second, third, and highest risk quartiles, respectively). The actual average amount paid for the research sample by CMS is less, because some beneficiaries are no longer attributed to the practice but are still in the sample.
- **Medicare FFS expenditures per month, by service category.** Total claims-based Medicare expenditures per month broken down by type of Part A or Part B service (inpatient, outpatient, physician, home health, skilled nursing facility [SNF], hospice, and durable medical equipment [DME]).
- **Physician expenditures per month, by type of visit.** Expenditures per month on physician visits in all settings broken down by primary care physician versus specialist visit (for the codes used to define primary and specialist visits, see Tables I.5 and I.6).

Table I.5. Primary care physician health care financing administration specialty codes

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	

Table I.6. Specialty physician health care financing administration specialty codes

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

Table I.6 (continued)

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	

Hospital admissions per 1,000 beneficiaries per year. This measure is the annualized hospitalization rate per 1,000 beneficiaries of all admissions reported in the inpatient file for that year. Transfers between facilities are counted as a single admission. Multiple claims for acute admissions from traditional acute care and critical access hospitals that represent transfers between hospitals are combined into a single record, so that they count as one admission.

ED visits per 1,000 beneficiaries per year. This measure is the annualized number of ED visits and observation stays per 1,000 beneficiaries. It includes visits that lead to a hospitalization.

Outpatient ED visits per 1,000 beneficiaries per year. This measure is the annualized number of ED visits and observation stays per 1,000 beneficiaries that do not lead to hospitalization. Visits that do not lead to a hospitalization are identified in the outpatient department file using revenue center line items equal to 045X or 0981 (emergency room care), 0762 (treatment or observation room), or 0760 (treatment or observation room—general classification). A visit is counted as an observation stay if it is longer than 8 hours and shorter than 48 hours and has a corresponding current procedural terminology (CPT) code of G0378, hospital observation services per hour. If the procedure code on the line item of the ED claims equals 70000 through 79999 or 80000 through 89999, it is excluded (to exclude claims in which only radiological or pathology/laboratory services were provided).

Observation stays per 1,000 beneficiaries per year. This measure is a subset of the outpatient ED visits or ED visits that did not lead to a hospital admission. Specific codes used to identify observation stays are described above.

Number of PCP visits in all settings per 1,000 beneficiaries per year. This measure is the number of visits to primary care providers (defined in Table I.5), including nurse practitioners (NPs), clinical nurse specialists (CNSs), and physician assistants (PAs), as defined by Health Care Financing Administration (HCFA) specialty codes, per 1,000 beneficiaries per year.

Number of office-based PCP visits per 1,000 beneficiaries per year. This measure is the number of visits to primary care providers (defined in Table I.5), including nurse practitioners (NPs), clinical nurse specialists (CNSs), and physician assistants (PAs), as defined by HCFA specialty codes, for office based evaluation and management (CPT codes 99201–99205, 99211–99215), per 1,000 beneficiaries per year.

Number of specialist visits in all settings per 1,000 beneficiaries per year. This measure is the number of visits to specialists, as defined by HCFA specialty codes (see Table I.6 for a list of codes), per 1,000 beneficiaries per year.

Number of office-based specialist visits per 1,000 beneficiaries per year. This measure is the number of visits to specialists, as defined by HCFA specialty codes (see Table I.6 for a list of codes), for office-based evaluation and management (CPT codes 99201–99205, 99211–99215), per 1,000 beneficiaries per year.

Quality-of-care process measures for beneficiaries with diabetes. We used Healthcare Effectiveness Data and Information Set (HEDIS) measures and defined them annually—for the pre-intervention and intervention years—using beneficiaries attributed to CPC practices over the intervention period who had diabetes. We used five measures:²⁰

1. **HbA1c testing.** Percentage of beneficiaries ages 18–75 who had diabetes and had a hemoglobin A1c test in the year.
2. **Eye exam.** Percentage of beneficiaries ages 18–75 who had diabetes and had an eye exam in the year.
3. **Urine protein testing.** Percentage of beneficiaries ages 18–75 who had diabetes and had a urine protein testing in the year.
4. **Composite measure—whether a beneficiary had all three tests (all three are equal to one).** Percentage of beneficiaries ages 18–75 who had diabetes and had all three exams or tests described in measures (1) through (3).
5. **Composite measure—whether a beneficiary had none of the three tests (all three are equal to zero).** Percentage of beneficiaries ages 18–75 who had diabetes and had none of the three exams or tests described in measures (1) through (3).

Continuity of care measures. We defined continuity of care measures over a four-year pre-intervention and a four-year intervention period—using beneficiaries attributed to CPC and comparison practices in the first quarter of CPC. One measure is based on the proportion of visits made by the beneficiary to the practice he or she was attributed to out of all visits made during a four-year period. We used two variants of this measure:

- **Percentage of primary care visits at attributed practice.** This measure is the proportion of office-based E&M visits to primary care physicians, NPs, PAs, and CNSs at the attributed practice out of all such visits in a year.
- **Percentage of all office visits at attributed practice.** This measure is the proportion of office-based E&M visits to primary care physicians, specialists, and NPs, PAs, and CNSs at the attributed practice out of all such visits in a year.

²⁰ Earlier reports included two additional measures, for lipid testing among beneficiaries with diabetes, and lipid testing among beneficiaries with ischemic vascular disease. We excluded these measures from the analysis for this final report, because the American College of Cardiology and the American Heart Association no longer recommend these tests.

We constructed a second continuity of care measure, based on applying the principle of the Bice-Boxerman Index (BBI), which is a measure of market concentration. In our case, this measure indicates how concentrated (or dispersed) a beneficiary's visits are across all providers (including the CPC practice treated as a single provider) he or she saw over a time period. For instance, out of a total of 10 visits:

- If he or she made all visits to a single provider, the BBI is 1 (perfect continuity)
- If he or she made one visit to each of 10 providers, the BBI is 0 (zero continuity)
- If he or she made five visits to each of two providers, the BBI is 0.44

We used two variants of this measure: (1) BBI based on primary care visits and (2) BBI based on all office visits.

For all four continuity of care measures, we constructed the total number of office-based E&M primary care physician visits and office-based E&M specialist visits, respectively. We used the primary care and specialty codes listed in Tables I.5 and I.6, respectively, to identify these visits, and the codes listed in Table I.7 to define whether a visit is office-based.

Table I.7. CPT codes to define office-based E&M visits

Qualifying CPT codes	
Office/outpatient visit E&M	99201–99205 99211–99215

Likelihood of 14-day follow-up visit after a discharge. We used a similar approach to identify the denominator of index discharges for 14-day follow-up visit as we used for 30-day readmissions, with two notable exceptions: (1) requiring that beneficiaries are also Part B eligible, given the follow-up in an outpatient setting; and (2) looking 14 days out instead of 30 to see whether the beneficiary had a readmission following an index discharge. More specifically, the measure was defined as follows: we included all beneficiaries who had an index discharge (with the denominator exceptions noted above) and followed them for 14 days postdischarge to determine whether they had a follow-up visit with a primary care or specialist physician, excluding those who had a readmission during that two-week period. We excluded only discharges followed by a planned readmission.

Follow-up clinician office visits were identified using the following evaluation and management (E&M) codes from Part B physician files: 99201–99205; 99211–99215; 99241–99245; 99304–99310, 99315–99316, 99318; 99324–99328; 99334–99337 and 99339–99340; 99341–99345; 99347–99350; 99441–99443; 99374–99380; the following federally qualified health center revenue center codes: 521–522; and also, codes for complex chronic care coordination (99487, 99488, 99489), chronic care management (99490), and transitional care management (99495 and 99496).

Hospital admissions for ambulatory care-sensitive conditions per 1,000 beneficiaries per year. A subset of hospital admissions based on the definition developed by the Agency for Healthcare Research and Quality (AHRQ) of potentially avoidable hospitalizations for ACSCs, defined as conditions for which timely, high-quality outpatient care can often prevent complications or more serious disease. AHRQ originally developed these measures as area-level indicators of adequacy of access to primary care, but we use them only to identify hospitalizations that are potentially preventable based on admission diagnosis codes. Whereas AHRQ excludes any hospitalizations that involve a transfer to one or more subsequent facilities, we include these stays in our calculation but focus only on the claim for the first facility.

We count beneficiaries as having a preventable hospitalization if the diagnosis on their claim is any of the following: diabetes related (short-term complications, long-term complications, uncontrolled diabetes, and rate of lower extremity amputation), congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD) in asthma or older adults, coronary artery disease (CAD; including angina without procedure, hypertension, hospitalization for acute myocardial infarction [AMI], hospitalization for acute stroke, combined AMI or stroke), dehydration, bacterial pneumonia, or urinary tract infection.

Likelihood of 30-day hospital readmission. For calculating the 30-day readmission rate, we used a slightly different time period definition than for the other measures. We looked at all eligible inpatient discharges during the last month of the previous year and the first 11 months of the current year, and calculated the proportion of these index discharges that were followed by an unplanned hospitalization within 30 days of the discharge.

Eligible index discharges for calculating the readmission rate include index discharges for beneficiaries who were enrolled in Medicare FFS, discharged from nonfederal acute care hospitals, alive at the time of discharge, and not transferred to another acute care facility. The eligible index discharges include beneficiaries discharged to nonacute care settings. Index discharges do not include admissions to Prospective Payment System-exempt cancer hospitals, admissions for beneficiaries without at least 30 days of postdischarge enrollment in FFS Medicare, admissions for beneficiaries discharged against medical advice, admissions for primary psychiatric diagnoses, admissions for rehabilitation, and admissions for medical treatment of cancer. The readmission rate counts all *unplanned* readmissions that arise from acute clinical events requiring urgent rehospitalization within 30 days of discharge.

Likelihood of 30-day ED revisit. The ED revisit measure identifies whether an outpatient visit to the emergency department, in which the beneficiary was treated and discharged to home/self-care, was followed by another visit to the ED within 30 days. The measure is defined at the beneficiary level for the pre-intervention year as well as each intervention year.

G. Variance components in the Bayesian analysis

The Bayesian impact analysis model included random effects of beneficiary, practice, practice-year, region, and region-year, allowing us to gauge how much of the overall variability in total Medicare expenditures came from each of these sources. Below we present the standard deviation of each set of random effects, which describes the spread of estimated effects within that group (Table I.8). For the beneficiary-specific effects, for example, the standard deviation describes the dispersion of the estimated random effects of beneficiary, where each estimate

represents a single beneficiary's mean expenditures over time. We also present the residual standard error; taking these sources of variance together, we can determine what proportion of the total variance each source represents.

Table I.8. Variance decomposition of CPC Bayesian impact analysis model

Variance source	Standard deviation	Percent of total variance
Beneficiary	1024.79	21.82
Practice	70.62	0.10
Practice Year	46.63	0.05
Region	40.18	0.03
Region Year	18.29	0.01
Residual	1937.56	77.99
Total	3138.07	100.00

These results show that differences among beneficiaries within a given practice-year account for 21.8 percent of the variability in total Medicare expenditures, the largest share of any variance component. No other component accounts for more than 0.1 percent of the overall variance, indicating that regression-adjusted differences among beneficiaries contribute far more to observed differences in expenditures than differences among practices or regions.

Focusing on the proportion of explained variance that can be attributed to various clustering factors, differences among beneficiaries within a given year account for the vast majority—99 percent—of the explained variance. Clustering in practices and regions accounts for the remaining 1 percent of the explained variance.

Software. We analyzed data using R statistical software (version 3.3.1; R Core Team 2016), using the arm package (Gelman et al. 2016) and the rStan package (Guo et al. 2017), Stata version 14.2, and SAS Enterprise Guide version 7.1.

