Exploring Variation in Transformation of Primary Care Practices to Patient-Centered Medical Homes: A Mixed Methods Approach

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Abstract

The objective was to quantify the activities required for patient-centered medical home (PCMH) transformation in a sample of small to medium-sized National Committee for Quality Assurance (NCQA) recognized practices, and explore barriers and facilitators to transformation. Eleven small to medium-sized PCMH practices in Southeastern Pennsylvania completed a survey, which was adapted from the 2011 NCQA standards. Semistructured follow-up interviews were conducted, descriptive statistics were computed for the quantitative analysis, and a process of thematic coding was deployed for the qualitative analysis. Practices had considerable quantitative variation in their workforce composition and the PCMH-related activities they implemented. Most practices improved access and continuity through staff training and team-based care as well as expanded data collection for population management. The barriers to PCMH recognition were least burdensome for the largest practices. The heterogeneity of the small PCMH practices within the study sample underscore the need to understand the key transformation issues as efforts to disseminate the PCMH model continue.

Keywords: patient-centered care, medical home, primary health care, practice management, cost control

Introduction

Background

THE PATIENT-CENTERED MEDICAL home (PCMH) is an evolving model directed toward better equipping practices to provide comprehensive and coordinated care to a growing population with complex chronic care needs, as well as improving care for all patients.^{1,2} It has been widely supported by purchasers, payers, physicians, and patient-advocacy groups as a vehicle to increasing the value of care provided in primary care.^{2,3}

Currently, recognition of practices as PCMHs is a formalized process. Under the process established by the National Committee for Quality Assurance (NCQA), a major PCMH recognition body, medical practices demonstrate their patient-centeredness across 6 domains. Practices accrue points for activities in each domain, and they may at-

tain recognition as a Level 1, 2, or 3 practice based on the number of points accrued as well as the type of points (ie, points accrued in specific domains). In addition, Level 2 or 3 recognition required the use of an electronic medical record (EMR); this was not required for Level 1 recognition under the 2011 standards.⁴ NCQA is not the only source for PCMH recognition—URAC and the Accreditation Association for Ambulatory Health Care are 2 private organizations that provide PCMH recognition, while state-based recognition exists in states such as Michigan and Oregon.^{5–7}

The formal application procedure for PCMH recognition can be contrasted with the actual utilization of patient-centered principles underlying the transformation of a primary care practice. This study explored the choices that a group of small practices made in transforming their practices into PCMHs seeking recognition for their practices from NCQA. A mixed methods approach was used to

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quantitatively analyze the changes practices made to transform to a PCMH and to qualitatively explore why practices adopted, and did not adopt, specific PCMH features. The study team concludes by commenting on the broader implications of these results from a science practice transformation perspective.

Motivation

Studies of PCMH are often based on state-based pilots designed for the purposes of health reform. For example, “The Washington State Multi-Payer Medical Home Reimbursement Pilot (Pilot) tested a payment method for the patient-centered medical home PCMH model intended to reduce avoidable emergency department (ED) and hospitalization rates.” An analysis of that pilot by Koshy et al used qualitative analysis of semistructured interviews and delineated a number of barriers and facilitators to PCMH implementation, with a strong focus on barriers, but included a heterogeneous mix of practices.⁸ Prior studies have focused on the success of the PCMH model as the foundation for primary care reform by examining the determinants of uptake by small and medium sized practices across the United States.⁹ However, the prior literature has not adequately addressed how transformation takes place in such practices.

The present study focused specifically on the transformation to PCMH in small to medium-sized practices in order to address a gap in the literature. Small and medium-sized practices have been found to utilize few PCMH processes in general.¹⁰ Small and medium-sized practices in particular may not have the economies of scale and resources required to surpass the initial barriers to adoption of the PCMH model. The importance of small to medium-sized practices is accounted for by the total number of providers working in such practices. A study by Welch et al in 2013 found that nearly half of physicians work either in solo practices or in practices with between 2 and 10 physicians.¹¹ Thus, research that addresses the avenues by which smaller practices can attain PCMH recognition can help both the practices that transform and the patients those practices serve.

Methods

Context

The 2007 Chronic Care Initiative (CCI), developed by the Chronic Care Commission within Pennsylvania, was created to provide a framework for tackling dual obstacles to better care for people with chronic disease by changing how care is provided based on the Chronic Care Model and rewarding practices for helping to deliver this care with aligned financial incentives.¹² The initial rollout of the CCI focused on diabetes in adults and asthma in children. Additional chronic diseases such as hypertension and coronary artery disease were added later as conditions of interest.^{13–15} Participation in the CCI included financial incentives for practices that achieved NCQA recognition at any level, participated in conference calls, attended CCI learning sessions, and submitted monthly process and outcomes data. Financial incentives were practice specific per full-time equivalent (FTE) and publicly available. The original

demonstration project included 32 small and medium-sized practices.

Survey design

The survey was adapted from the 2011 NCQA application for PCMH recognition and constructed to elicit the activities responsible for both gaining and sustaining practice transformation. The survey questions were organized to reflect the 6 core competencies identified by NCQA: (1) enhance access and continuity, (2) identify and manage patient populations, (3) plan and manage care, (4) provide self-care support and community resources, (5) track and coordinate care, and (6) measure and improve performance.¹⁶ In addition, the survey also included 2 components targeting practice culture and reimbursement of each practice. The decision to include practice culture in the survey was based on prior findings of the study team and of the CCI that indicated it was a crucial element of PCMH transformation and unaddressed by NCQA guidelines.

The study's principle investigator and one of the co-investigators were members of a large academic family practice that had previously obtained PCMH recognition from NCQA through the CCI. The survey was pilot tested with providers and administrators responsible for the transformation of that practice to refine the survey. That practice was part of the CCI demonstration, but it was not part of the sample of practices because of its size. In tandem with the survey, in-depth interviews were conducted to provide qualitative data to support the understanding of PCMH transformation in each of the participating practices, and also to explore possible reasons for preferentially implementing one activity over another.

Study recruitment and data

The study team initially approached 35 small and medium-sized NCQA-recognized PCMHs that were located in southeastern Pennsylvania and had fewer than 10 FTE providers, and assessed their interest in sharing their experience of transforming and sustaining their PCMH. These 35 practices included the 32 in the southeastern Pennsylvania collaborative and 3 additional PCMH-recognized practices that also were located in southeastern Pennsylvania but were not part of the collaborative. After receiving initial feedback from 12 practices, the study team chose to limit the study sample to 11 practices that served only adults by excluding 1 individual pediatric specialty practice to enhance between-practice comparability. Nine of the 11 practices previously participated in the southeastern Pennsylvania collaborative. Two practices were not part of the collaborative but were NCQA-recognized PCMHs and also located in southeastern Pennsylvania. Nonparticipating practices were not enrolled in the study, and therefore data on the characteristics of those practices is not available. This study was approved by Thomas Jefferson University's Institutional Review Board.

The electronic survey was administered in October through December of 2013, and the semistructured interviews were administered with each practice from October 2013 through March 2014. The practices decided who among their practitioners and staff would fill out the survey, and they then returned the survey by e-mail or by fax. The study research coordinator then verified that the survey

instrument had been filled out and noted any gaps or inconsistencies in survey responses. These gaps or inconsistencies became part of the semistructured interviews for practices. Each interview was conducted face-to-face or by telephone with members of the study team and representatives of the participating practice. The interview questions further elaborated on survey responses and were tailored to each individual practice. Each interview lasted approximately 1 hour, and the responses were transcribed by a member of the research study for data coding and analysis.

Analytic approach

Two researchers cataloged survey responses, including structured and free-text data, independently from one another using Microsoft Excel software (Microsoft Corporation, Redmond, WA). Differences between the 2 researchers in classifying the data were resolved through discussion with the study team's principle investigator and coinvestigators. In a small number of cases, practices were asked follow-up questions in order to resolve these differences. The individual practices were de-identified and coded to preserve confidentiality. The entire de-identified database was then shared with the larger research team for more in-depth analysis, including identifying patterns in the responses between the practices.

To gain a more detailed understanding of the activities and attitudes surrounding transformation, a qualitative analysis was performed. Themes and concepts from the follow-up interviews were identified and utilized to elaborate on and clarify the survey responses. Initial codes were created and then data were collapsed into labels, creating categories that were used for analysis. Recurring ideas and concepts were combined into overarching themes that were present in the data set. To assure validity of the coding scheme, a separate member of the research team independently reviewed the raw data and compared and reconciled any coding differences between the reviews. The results of both the quantitative and qualitative analyses were then combined. Of note, 3 practices (practices I, J, and K) were part of the same umbrella organization. Although they differed in many of the descriptive statistics that were analyzed, they responded to the interview questions as if they were 1 practice. As a result, for the qualitative analysis, all 3 of these practices were grouped together as if they were 1 practice.

Results

Quantitative results

Overall, the practices in the sample differed in the composition of their workforce as well as in the level of NCQA recognition they previously achieved (Table 1). Level 1 practices achieved the "must pass" elements under the 2011 guidelines, Level 2 practices achieved these elements as well as 60–84 points for NCQA recognition elements, and Level 3 practices achieved the "must pass" elements as well as 85–100 points for NCQA recognition elements.^{4,16} Practices typically employed anywhere from 2 to 5 medical assistants, and 1 practice employed 13 medical assistants. Medical assistants were employed for all activities within a practice, although in many cases these individuals may have

been hired specifically to achieve PCMH recognition. The ratio of clinical staff per provider ranged from 0.80–2.67. All practices within the sample had previously achieved NCQA recognition as a PCMH: 5 practices had achieved Level 3, 3 practices had achieved Level 2, and 3 practices had achieved Level 1 (Table 1). Six practices received either initial recognition or renewal of their PCMH designation using the updated 2011 NCQA recognition standards. There also was considerable variation in how the practices within the sample were paid and with whom they were financially affiliated (Table 2).

Based on the responses from the survey, it was found that practices changed or implemented many similar activities during their transformation to a PCMH (Table 3). Nearly all practices indicated they made changes in order to fulfill the NCQA Access & Continuity standard by improving access, continuity of care, training for staff, and responsibilities that constitute team-based care. Likewise, 10 of 11 practices expanded the data collected on patients as well as the use of the data for facilitating population management activities to satisfy the NCQA standard called Identify and Manage Patient Populations. However, in addition to the similarity in improvements made to transform in accordance with NCQA standards, these practices also shared similarities in implementing some PCMH-related activities (Table 3).

Qualitative results: themes from the interviews

A total of 11 themes emerged from the qualitative analysis: (1) Workforce Changes, (2) Outcomes Measurement, (3) EMR Integration, (4) Patient Engagement, (5) Care Coordination and Communication, (6) Implementation Barriers, (7) Enhanced Access, (8) Enhanced Continuity, (9) Medication Management, (10) Outside Resources, and (11) No Change. Each of these themes is composed of several key ideas, many of which were repeated frequently throughout the discussions with the providers (Table 4). Access was a main theme that emerged; 7 of the 9 practices indicated that they had expanded access. This was done in a variety of ways, including offering open access scheduling, increasing visit duration, and extending hours by "open[ing] evening hours for two days weekly" or "add[ing] two half-day Saturday sessions."

Qualitative results: practice culture

Apart from changes made to meet NCQA standards, every practice indicated that the transformation process led to significant changes in practice culture. This idea of practice culture revolved around the theme of workforce changes for each of the practices. Ideas of increased staff engagement and changing roles and responsibilities were central to the change in practice dynamics. Practice B stated that the "staff has much more say in how things are done," while Practice E noted that the "overall accountability is increased" and the practice has shifted to a "team-based model with expanded roles." The shifting emphasis toward a team-based model with greater focus on prevention and wellness led to noted improvements in patient care. As a result, as Practice G stated, "satisfaction overall is increased and people are confident that we are doing what is right."

In contrast to the binary (yes/no) question from the initial interview, the qualitative analysis of themes gives a more

TABLE 1. DESCRIPTIVE CHARACTERISTICS BY PRACTICE

<i>Practices</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>K</i>	<i>Average</i>
NCQA recognition level	2	2	3	3	3	2	3	3	1	1	1	2
NCQA recognition cycles, 2008–2011	2	2	2	1	2	2	1	1	1	1	1	1.45
Year of most recent recognition	2012	2012	2011	2010	2011	2011	2012	2010	2009	2009	2009	N/A
Providers and staff	11.25	12	34	4	29.50	11	17	43	10	12	10	17.61
Medical doctor	2	3	9	1	4.50	1.50	3	8	0	0	0	4.00
NP/PA/APN ^a	0.50	0	1	1	2	1.50	7	2	3	5	3	2.60
Clinical staff per provider	2.38	1.00	1.22	2.00	3.11	2.67	1.00	1.00	1.33	0.80	1.33	1.62
Registered nurse	0	0	1	0	1	1	0	3	1	1	1	1.29
Medical assistant	3.75	3	5	2	13	3	2	4	2	2	2	3.80
Social work	0	0	0	0	0	0	0	0	1	1	1	0.50
Clerical staff	3	5	12	0	8	3	0	24	3	3	3	7.11
Practice manager	1	1	1	0	1	1	4	1	0	0	0	1.43
Case manager	1	0	5	0	0	0	1	1	0	0	0	2.00
Active patient population (within 2 years) ^b	2361	3800	14,000	2000	11,000	2235	4890	13,976	2278	2149	1988	5516
Patients per provider	1181	1267	1556	2000	2444	1490	1630	1747	759	430	663	1379

^aNPs, PAs, and APNs were counted as clinical staff in medical practices, and as providers in nurse practitioner-led practices.

^bAs reported by practices.

APNs, advanced practice nurses; N/A, not applicable; NCQA, National Committee for Quality Assurance; NPs, nurse practitioners; PAs, physician assistants.

nuanced view of changes in practice culture. These results are presented in Table 5. Themes of Workforce Changes, Outcomes Measurement, and EMR Integration were mentioned by every practice and more frequently than any other themes (Table 5). These themes were brought up not only when pointed questions were asked, but were referenced frequently throughout the discussions. Workforce Changes was the most prevalent theme. Ideas surrounding new hiring, staff trainings, and changes in staff roles/responsibilities were brought up at least 6 times by each practice, and as often as 10 times. Every practice discussed specifically the expansion of medical assistant roles as they adopted new responsibilities including medical reconciliation, patient education and counseling, cancer screening, diabetic foot exams, and health coaching. It became clear that changing the practice's workforce dynamics was essential in order to successfully transform into a PCMH. Every practice mentioned the need for outside resources to help support the

transformation process. However, the 3 largest practices—C, E, and H—appeared to have the easiest time undergoing transformation.

Patient engagement emerged as a main theme throughout the practices. Although 8 of 9 practices (89%) indicated that they increased patient engagement, only 5 of 9 practices (56%) stated that patients and families were involved in providing feedback to the practice. There was variation in how practices engaged patients including through patient feedback, patient surveys, shared decision making, patient education and outreach, and self-management. However, during the interviews, every practice mentioned on multiple occasions that they had increased patient involvement. Practice F, which did not indicate that they increased patient engagement or incorporated patient feedback on the survey, mentioned increased patient engagement 3 separate times during the interviews, including the use of patient feedback surveys in the practice.

TABLE 2. FINANCIAL CHARACTERISTICS BY PRACTICE

<i>Practices</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>K</i>
Financial characteristics ^a	1	1	1	1	1	1	2	2	3	3	3
Medicare/Managed Medicare (% of patient population)	30	65	35	30	10	60	41	60	1	10	5
Medicaid/Medicaid Managed Care (% of patient population)	25	0	0	2	2	0	11	1	45	60	45
Private (commercial) insurance (% of patient population)	45	30	65	65	87	39	47	38	10	1	2
Uninsured (% of patient population)	0	5	5	3	1.5	1	1	2	43	29	48
Capitation (% of patient population)	50	50	20	33	47.5	10	58	63	52	30	50
FFS (% of patient population)	50	45	75	64	47.5	89	41	35	48	70	50
Self-pay (% of patient population)	0	5	5	3	1.5	1	1	2	0	0	0

^aFinancial characteristics: 1, financially independent; 2, financially affiliated with an academic medical center; 3, financially affiliated with another organization (Federally Qualified Health Center grantee).

FFS, fee for service.

TABLE 3. PRACTICE ACTIVITY DATA TABLE

Practice	Answer by practice											Proportion, %
	A	B	C	D	E	F	G	H	I	J	K	
I. Access and continuity												
Did you expand access?	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	82
Did you improve continuity?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
Did you increase training for practice staff?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
Did you change responsibilities of practice staff for more team-based care?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
Did you add cultural/linguistic services?	Y	N	N	Y	N	N	N	N	N	N	N	18
II. Identify and manage patient populations												
Did you expand or improve health data collected on patients?	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	91
Do you use health data for new population management activities?	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	91
III. Plan and manage care												
Did you create new ways of getting evidence/guidelines to the point of care?	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	82
Did you change the process for identifying or managing high-risk patients?	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	82
Did you make changes to the process of medication management?	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	82
IV. Provide self-care support												
Did you increase patient engagement? Add/expand self-care support?	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	91
Any new approaches to involving patient/family in shared decision making?	Y	Y	N	Y	Y	N	N	N	Y	Y	Y	64
V. Track and coordinate care												
Did you add tracking/follow-up of any tests or referrals?	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	91
Did you increase coordination of patient care with other providers or community resources/specialists?	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	82
VI. Measure and improve performance												
Any change in the way practice performance data is measured or used?	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	91
Have you expanded/changed the way you assess patient/family experience?	Y	Y	Y	N	Y	N	Y	N	N	N	N	45
Are the patients/families involved in providing feedback to the practice?	Y	Y	N	N	N	N	Y	Y	Y	Y	Y	64
Did you add/expand quality or safety aspects of practice?	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	91
VII. Practice culture												
The way the practice is managed?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
The culture of your practice?	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	91
VIII. Continuation in chronic care initiative												
Are you also participating in the CMS demo which continued from SEPA?	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	82
If not, why not? Data didn't show enough improvement__ Other__	N/A	N/A	N/A	N/A	N/A	N/A	Not invited	N/A	N/A	N/A	N/A	N/A

CMS, Centers for Medicare & Medicaid Services; N, no; N/A, not applicable; SEPA, southeastern Pennsylvania; Y, yes.

TABLE 4. DESCRIPTIONS OF THEMES AND REPRESENTATIVE QUOTES

<i>Theme</i>	<i>Description</i>	<i>Representative quote</i>
Workforce changes	Staff hiring, staff training, changing roles/responsibilities	“We initially hired +1 FTE chronic care manager for the process that has since retired but we are actively recruiting for a new one. However, we reengineered the practice model to accommodate for workflow changes that happened secondary to transformation.”—Practice A
Outcomes measurement	Data collection and reporting, patient/disease registries, quality indicators, risk stratification/tracking	“Yes, we created reports to identify target populations. We rely on payers to send us paper notifications about thirty-day readmissions, patients not taking meds, no-shows, and eligibility issues.”—Practice G
EMR integration	EMR adoption, EMR use for data collection and reporting, creation of patient/disease registries, patient portals	“Helps create patient registries, reminder systems for patients, enhance reporting and recall ability, and clinical decision-making prompts.”—Practice B
Patient engagement	Patient feedback, patient surveys, shared decision making, patient education/outreach, self-management	“We offer many educational materials and self-care tools, including the health action plan and the health progress report mentioned above.”—Practice C
Care coordination and communication	Communication and coordination with outside hospitals/providers and patients, referrals	“Community coordinator that calls into the nurse. Also the nurse helps coordinate with the hospice and home care sites.”—Practice F
Implementation barriers	Time constraints, financial constraints	“If we had more revenue available we would hire someone, but this has been a struggle with bare-bones funds.”—Practice A
Enhanced access	Extended hours, open access scheduling, increased visit numbers, patient portals	“We opened evening hours for 2 days weekly. We are now using our EMR’s patient portal, which allows easy access for patients. Our providers e-mail back and forth to patients, they can access their test results, send requests for referrals, prescriptions, appointments, etc.”—Practice C
Enhanced continuity	Patient stays with same primary care provider/team, patient visit mapping, routine follow-up	“Identify the PCP in EMR real time, which helped sorting out patients to switch between the inpatient team and outpatient team. For example, a call may go to a physician-specific nurse, which helps improve continuity and identification. We have an automated e-mail system that e-mails PCPs when their patients are in the hospital or ER”—Practice H
Medical management	Medical reconciliation, renewal policies	“Medication reconciliation occurs at each visit and within 24 to 48 hours of a patient’s discharge from the hospital. We use ePrescribing and have configured alerts within the ePrescribing module of the EMR”—Practice D
Outside resources	Financial support, CCI, Transformed, training resources	“We are planning on continuing with CCI. No, we needed the leverage to move forward with our staff and practice. It gave us the reasonable goods and resources to force us to look at what we’ve been doing and how we can get better.”—Practices I–K
No change	No change after transformation, No change to assessing patient/family experience	“No we have not changed the way we assess patient/family experience”—Practice H

CCI, chronic care initiative; EMR, electronic medical record; ER, emergency room; PCP, primary care provider.

TABLE 5. GROUPED THEME FREQUENCIES BY PRACTICE

<i>No. of times mentioned</i>	<i>0</i>	<i>1–3</i>	<i>4–6</i>	<i>7–10</i>
Workforce changes			D,E	A,B,C,F,G,H,I–K
Outcomes measurement		F	A,E,H	B,C,D,G,I–K
EMR integration		E	A,F,G,H	B,C,D,I–K
Patient engagement		B,C,F,G,H	A,D,E,I–K	
Care coordination and communication		A–K		
Implementation barriers	C,E,H	B,D,F,G,I–K	A	
Enhanced access	E	A–D,F–K		
Enhanced continuity	E,G,I–K	A–D,F,H		
Medication management		A–K		
Outside resources		A–K		
No change	A,D	B,C,E,F,G,I–K		H

EMR, electronic medical record.

Data convergence

The results of both the quantitative and qualitative analyses provide a more detailed understanding of the system changes identified in PCMH transformation. Looking at the NCQA standard, Access & Continuity, found in Table 3, 7 of the 9 practices indicated that they had expanded access. This was done in a variety of ways, including offering open access scheduling, increasing visit duration, and extending hours by “open[ing] evening hours for two days weekly” or “add[ing] two half-day Saturday sessions.” However, during the discussions, the theme of Enhanced Access was not emphasized as much as other themes, with practices mentioning it a maximum of 3 times (Table 5). The possibility that the quantitative results and qualitative results are not fully reconciled is one that is a fruitful area for future research, especially in order to determine the real meaning of PCMH recognition both in terms of practice activities and patient outcomes.

Discussion

Implications of the study findings

The practices in this study were heterogeneous despite the similarities in the PCMH transformation context. For example, all of the practices had fewer than 10 FTE providers, were located in similar primary care markets within southeastern Pennsylvania, and underwent PCMH transformation during the same time period, with 9 of them participating in the CCI. Achievement of NCQA recognition among the practices in the sample was not related to similar infrastructure and capacities. Practices delivered care to anywhere from 1988 to 14,000 patients across a 2-year period with different combinations of staff supporting the activities of the PCMH; 1 practice had access to as many as 24 clerical staff while another had 4 practice managers.

The variation in workforce composition suggests that small and medium-sized practices may have different abilities to conduct the activities needed to become a PCMH depending on whether they can delegate staff members in different categories to take on some of the more time-intensive activities. The practices in this study employed a range of staff and a range of managers in order to achieve PCMH recognition and in order to run the practice. For example, only 6 of the 11 practices employed a practice manager—the other 5 practices achieved practice manage-

ment through the use of clerical staff or by having clinical staff perform this crucial role. Practices also utilized a range of different kinds of nonclinical or clinical health professionals and support staff, such as case managers and social workers, to deliver more patient-centered care.

Despite their differences, the practices in this sample appeared to make similar decisions as to which PCMH activities to implement during their transformation. For example, NCQA does not require each activity but rather a total number of points in order to achieve recognition, and the majority of practices in the sample chose not to add linguistic services or activities that incorporate the patient family’s experience within the delivery of care. It may be that certain activities are already linked with current reimbursement schedules from payers and are thus of more value to practices than other activities. Further exploration of the return on investment from pursuing certain activities and not others will help shed light on practice choices and how incentives should be constructed to encourage uniform activity implementation. It also is important to note that there may be other motivations for PCMH activities besides return on investment, such as perceived benefit to patients.

Limitations

One major limitation of this study is that it does not explore how a practice can overcome the barriers to transformation or utilize the available resources to its advantage. The majority of practices were in the CCI, which provided both financial and nonfinancial resources to facilitate practice transformation. In this sense, this study likely represents a conservative estimate of the barriers to transformation. This study is also subject to issues of recall bias and bias associated with the choice to allow practices to determine who would participate in the survey and follow-up interviews. Another important limitation to this study is the design for the qualitative analysis. Ideally, the semistructured interview results would have been recorded and transcribed, but it is possible that practices were more open because they were not being recorded. Finally, discrimination among the responses to the semistructured interview would have been enhanced through an increased range of answers, perhaps on a 5-point Likert scale. This may have helped to quantify the variability of effort across the different activities. (The authors thank an anonymous reviewer for making this point explicitly.)

Conclusions

These findings regarding the variation in the utilization of PCMH activities by the sample practices show the need to further examine transformation of small to medium-sized practices. These results can be used to improve dissemination and generalizability of the PCMH model. The practices could be considered homogeneous in the sense that they all had fewer than 10 FTE providers, all obtained NCQA recognition as PCMHs, and most were part of the CCI. Conversely, these practices could be considered quite heterogeneous in that the number of FTE providers and staff ranged from 4 to nearly 30, practices had different primary payers, and practices were mixed in terms of whether they were led by physicians or by nurse practitioners. The study team sees the transformation to PCMH in the absence of the type of incentives offered by the CCI as an important area for future study of the model. Future studies would include both the amount of such incentives and the design (eg, capitated [per member per month] payments, shared savings, quality bonuses).

It is clear that practices chose different routes to obtain PCMH recognition. Practices also had different views of that recognition, which the study team determined through the use of 2 research tools—a survey and a semistructured interview—in combination with a mixed methods analysis. It is clear that practices are not adopting certain PCMH features because they see them as costly—the barriers to such features, especially for smaller practices, are too high. Finding ways to further examine these barriers to PCMH transformation in smaller practices, as well as outlining facilitators, is key to successful transformation to the PCMH model in primary care.

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Author Disclosure Statement

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