Medical Home Implementation in Small Primary Care Practices: Provider Perspectives

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Background: **CareFirst BlueCross BlueShield of Maryland implemented a voluntary patient-centered medical home (PCMH) program in 2011 that did not require formal certification to participate. This study assessed attitudes and awareness of PCMH programs among participating providers in Maryland and Northern Virginia.**

Methods: **This qualitative study used information from 13 focus groups. In addition, 39 telephone interviews were conducted. An experienced facilitator moderated the focus groups. Written transcripts were analyzed using NVivo software.**

Results: **Several cross-cutting themes emerged. First, the payment bump of 12% was a motivating factor to participate but did not have long-term effects on participation. Second, nurse care coordinators were perceived as the key element of the PCMH program. Third, providers had limited awareness of an external data portal. Finally, small practices were generally receptive to the externally supported program elements.**

Conclusions: **Implementation of PCMH program elements can be facilitated in small primary care practices even if third-party certification is not a requirement. Participating providers viewed having an external nurse care coordinator as the key element of the PCMH program. Small practices were receptive to external supports, but a lack of trust was viewed as a barrier to implementing a payer-based medical home program. (J Am Board Fam Med 2016;29:767–774.)**

Keywords: **Blue Cross Blue Shield Insurance Plans; Focus Groups, Nurse Practitioners; Patient-centered Care; Physicians, Primary Care; Qualitative Research; Quality Improvement**

Since 2007, the patient-centered medical home (PCMH) has been viewed as a promising approach to improve primary care quality and patient outcomes. The joint principles of a PCMH include a personal physician, physician-directed practice, whole-person orientation, coordinated care, quality and safety, and enhanced access.[1] A key component of the PCMH model is team-based care in which care coordinators perform various activities that aim to improve patient outcomes. Specifically, care coordinators identify patients with extensive service needs, conduct patient outreach, and manage patient data to support the PCMH model.[2]

The PCMH model has recently been adopted by Medicare and private payers, which offer financial resources and technical assistance to primary care practices identified as medical homes.[3] For this purpose, the National Committee for Quality Assurance (NCQA) has established criteria for identifying PCMH practices. A recent study estimated the application cost for PCMH certification at $13,700 per physician.[4] Maintaining the advanced functions of a PCMH involves the direct cost of personnel time, which was estimated to be $34 per patient visit based on experiences in 2 states.[5] Despite this cost, many large groups have been suc-

cessful in obtaining NCQA recognition. However, small practices with only 1 or 2 clinicians have expressed frustration and become disillusioned by the financial and administrative burden of NCQA recognition.[6,7] As a result, small practices have adopted relatively few PCMH processes.[8]

Most studies in the literature have examined the quantitative effects of PCMH models on the cost of care and the utilization of health care services.[9-11] Fewer articles have looked at provider experiences and perspectives on what is happening inside the "black box" of single-payer PCMH programs, or examined how small practices can adopt some of the processes and functions of a PCMH. This study aims to contribute to the literature by enhancing the understanding of how small practices adopted elements from a payer-based PCMH program that did not require formal third-party certification to participate. In this study, small practices are defined as having between 1 and 4 physicians.[12]

PCMH Program Description and Requirements

In 2011 CareFirst BlueCross BlueShield of Maryland implemented a program to improve quality of care and care coordination in small primary care practices, without requiring a practice to obtain NCQA certification or make internal investments in new staffing resources or electronic medical record systems. However, providers had to meet several requirements,[13] which are summarized in Table 1. Participation in the PCMH program was voluntary. Individual practices were organized into larger units, which CareFirst called "medical care panels," to encourage collaboration and communication among smaller practices. Participating providers in small practices were organized into virtual panels of up to 15 providers. Attitudes and program awareness were evaluated in focus groups consisting of providers who were organized in the same panel.

The PCMH program includes many features but focuses on 3 main elements. First, a 1-time 12% payment increase for all service billings was given to participating practices. In addition, participants are eligible for larger payment increases if the total cost of care for attributed patient members in a calendar year does not exceed an overall medical trend target and if composite quality scores meet or exceed threshold targets. Second, external

Table 1. Summary of Patient-Centered Medical Home Requirements

1. PCPs and NPs are required to be in good standing in CareFirst's regional PPO and HMO networks, abide by program rules (in Program Description and Guidelines), form or become part of a medical care panel, and become engaged in the care coordination activities at the heart of the program.

2. A PCP is eligible for the PCMH program if he or she is a health care provider who is full time, a duly licensed medical practitioner, is a participating provider, and contracted to render primary care services in both the CareFirst BlueChoice Participating Provider Network (HMO) and the CareFirst Regional Participating Network and has a primary specialty in on the following: internal medicine, family practice, general practice, pediatrics, geriatrics, family practice/geriatric medicine, osteopathic medicine (primary care), or NPs (primary care).

3. All PCPs in a group practice must join the program or none are accepted.

4. Panels must contain at least a minimum of 5 PCPs and/or NPs.

5. Practices may not participate in another PCMH during the time of CareFirst PCMH participation if both programs provide fees or incentives to the practice or CareFirst member.

HMO, health maintenance organization; NP, nurse practitioner; PCMH, patient-centered medical home; PCP, Primary care physician; PPO, preferred provider organization.

nurses, who are called "local care coordinators" (LCCs), are provided at no charge to participating practices to help manage plan-identified high-risk patient members who have multiple chronic conditions. These LCCs work with primary care providers to develop individualized care plans for this subset of high-risk patient members.

The third element is a secure information portal, called Searchlight, which gives each provider access to data on the total cost of care, including primary care, specialist visits, and hospitalizations, for the 50 highest-cost patient members within a panel. In addition, CareFirst hired PCMH program consultants who provided technical assistance and support for providers in using the portal and facilitating the transfer of panel-specific summary information.

Methods

This article reports on qualitative information collected from participating providers about their attitudes and awareness of the CareFirst PCMH program in 2013 and 2014. As part of an evaluation that included a claims analysis of the effects of the

PCMH program on total cost of care,[14] all qualitative data collection instruments in this study received prior approval by the institutional review board at George Mason University. Information on provider attitudes and awareness of the PCMH program was collected from 2 data sources.

First, we conducted 13 focus groups with a total of 93 participants, which included 82 physicians, 6 nurse practitioners, and 5 administrators. The average number of participants per focus group was 7 people, with a range of 3 to 11 individuals. This sample was recruited to provide broad representation of providers from each panel type (ie, virtual, single independent, multi-independent, and health system) that was classified by CareFirst. Since the PCMH program evaluation focused on adult patients only, we excluded all pediatric practices. Focus groups were conducted onsite at practices when possible. However, when meeting space was unavailable, discussions were held in hotel meeting rooms or restaurants.

Focus groups were audio-recorded with the consent of all participants, and written transcripts were subsequently created. Discussions were guided by a facilitator who used a written guide with open-ended questions and probes designed to elicit participant feedback on their motivation for joining the PCMH program and perceptions of various PCMH program elements. In addition, a total of 39 in-depth telephone interviews were conducted with 25 primary care physicians, 4 nonphysician providers, and 10 administrators. Telephone interviews were conducted with individuals who could not join a focus group in person. Telephone interviews were audio-recorded with the consent of participants and transcribed. Focus group participants received an incentive payment of $150 for their time. Telephone interview participants received an incentive payment of $75 to $125 depending on the length of the interview and their role in the practice.

We used the conceptual framework for practice improvement developed by Solberg[15] to guide the analysis and used experienced facilitators for the provider focus groups and interviews to improve the validity of qualitative research. Individuals met as a team on multiple occasions to discuss emerging themes and insights. A multidisciplinary project team, which included a primary care physician, a nurse practitioner, health economists, qualitative health research experts, and graduate research assistants, was used in the qualitative analysis to elicit different viewpoints on the meaning of key points from focus groups and interviews.

Using NVivo qualitative data management software (version 10; QSR International), we identified potential themes based on the coding of focus group and interview transcripts in the following stages. First, the research team developed a list of codes based on key concepts that emerged from the qualitative data. Second, 2 independent researchers coded each transcript by using a line-by-line analysis and constant comparison method to assess ideas and key concepts. Third, each transcript was arbitrated by a third reviewer to verify that codes were applied consistently. Fourth, we used data abstraction to identify lessons learned from the transcripts of the 13 provider focus groups and 39 telephone interviews.

Results

Table 2 provides a descriptive overview of the 13 medical care panels that were studied. Each panel included a range between 7 and 15 providers. The virtual panels included small practices that had 1 or 2 family physicians. The single and multi-independent panels included larger practices that included >2 physicians. While single-independent panels included a group of physicians from a single office location, multi-independent panels had physicians who worked in different office locations as part of the same corporate entity. Health system–based panels were owned by larger corporate entities. Eight focus group panels were located in Maryland and the remaining 5 were in northern Virginia. Qualitative data analysis revealed a number of themes on how providers viewed the CareFirst PCMH program and its various program elements.

Increased Reimbursement and Quality Are Motivators to Join the PCMH Program

The main reasons for joining the PCMH program that were consistently mentioned by primary care providers and office staff included the 12% payment increase for participation and the desire to improve patient care by using various elements of the PCMH program. Although the payment increase was viewed as necessary to obtain buy-in initially, it was not sufficient to foster ongoing engagement with the program.

"I first heard about it because CareFirst sent us a letter and information. And they said our

Table 2. Descriptive Characteristics of CareFirst Patient-Centered Medical Home Panels

Panel Number	Panel Type and Practices	Providers (n)	Service Area
1	Multiple independent (medium to large practices)	14	Virginia
2	Health system practice	13	Maryland
3	Virtual (small practices)	15	Maryland
4	Multiple independent (medium to large practices)	14	Maryland
5	Health system practice	9	Maryland
6	Virtual (small practices)	12	Maryland
7	Single independent (medium practices)	7	Maryland
8	Health system practice	15	Virginia
9	Virtual (small practices)	10	Virginia
10	Single independent (medium practices)	9	Maryland
11	Single independent (medium practices)	9	Virginia
12	Multiple independent (medium to large practices)	10	Virginia
13	Virtual (small practices)	12	Maryland

reimbursement would go up [by 12%], so that made me interested. And that is what made me go to the meeting. Since I was a solo [practitioner], I had to join other people [in a medical care panel]. I really did not know any of these physicians. So I was not sure how that was going to work. I did have questions about that. But that is how it started" (quote from a physician in a virtual panel).

Improving patient care supported the rationale for joining the program. In several transcripts from telephone interviews, both providers and office staff mentioned that the intrinsic motivation to improve patient outcomes was more valuable than financial incentives. Some primary care practices were already engaged in quality improvement efforts, which greatly facilitated the integration of the CareFirst PCMH program into a practice's philosophy and existing workflow.

"I think all [of] us are saying, that we are more driven by the quality, care plan, and quality improvement aspect [of the PCMH program] than financial incentives" (quote from a physician in a health system panel).

". . . Most people in our academic practice are thinking about [improving] quality of care and helping their patients . . . since I have enrolled patients [in the CareFirst PCMH program], I have found it to actually be very helpful for my patients" (quote from a physician in a health system panel).

Nurse Care Coordinators Are Perceived as a Key Element of the PCMH Program

Many providers appreciated having an LCC to implement a care plan and provide care coordination for patients with multiple chronic conditions. For many participants, the LCC represented the most tangible program element that added value for patients and improved the existing operations and workflow of the practice. Providers in small practices were especially receptive to the support of a nurse who could interact with patients.

". . . I have about 3 or 4 [patients] at this point. I like the fact that there is a nurse coordinator who can give the patient advice and follow up and give support. One of my patients had hypertension, and despite [our] attempts at education, she was using [her] medications wrongly; the nurse [care coordinator] let me know . . .; we finally reached a regimen that [the patient] could use properly . . so that was very helpful for me to have that person [the nurse care coordinator] in the mix" (quote from a physician in a health-system panel).

"We need someone like a nurse manager [to help us with complicated patients]. That is very helpful for compliance, with referral [tracking], and with checking up on the patients. We just do not have that kind of time with very complicated patients" (quote from a physician in a virtual panel).

Attitudes, however, were mixed or unfavorable when some LCCs changed during the first year of

program implementation because of turnover. In addition, some practices were initially reluctant to welcome LCCs because they were perceived to be disruptive to the practice's existing workflow. Several providers noted that more clarification of the role of the LCC within the PCMH team, as well as defined expectations and responsibilities, were needed. Some providers mentioned the issue of LCC staff turnover as a significant problem in the early months of the program.

"I would say it [the PCMH program] has certainly gotten much better, the quality of recording, our ability to actually identify patients who may benefit from a care plan . . . [but initially], we had revolving [nurse] case managers, and that was a huge problem because you'd start to work with somebody, they'd get you to develop a relationship, and then that person was gone, and someone else was in. That was very disruptive to the patients, and to the program, and particularly to us. Now we have our own [new nurse] LCC who is just outstanding" (quote from a practice administrator in a single independent panel).

"The first year and a half that we started the patient-centered medical home, we had 2 different local care coordinators. The first could not actually write a care plan, and I had to have them redraft it about 3 times because there were basic mistakes in the care plan. . . . That said, the most recent [nurse] care coordinator has been very accessible, has written clear, coherent care plans that are useful, and actually has been very helpful in reaching out to the patient and the practice. So I think that if we had that person from the very beginning, we probably would be much further along as a patient-centered medical home" (quote from a physician in a health system panel).

Limited Provider Awareness of External Data Portal
In the focus groups, only a few clinicians and office staff members were active users of the Searchlight information portal, which identified the top 50 patients with chronic conditions who had the highest total cost of care within a panel. In some cases nurse care coordinators would prepare reports with summary information on patients across an entire medical care panel. While some providers viewed the information as helpful, most providers were not aware of the portal or noted that it was cumbersome to access. In addition, some providers wished that the Searchlight portal could interface directly with electronic medical record systems already in place, rather than be accessed as a separate system.

"To be honest, I like things to be sent to me and pointed out . . . [the Searchlight portal] might not be the best option for me . . . while the [program] consultant's here to show me things, but, to actively go and put the password and all this, no" (quote from a physician in a virtual panel).

"It [Searchlight] is basically a generic portal for the practice, so when you log on, you have to search for your patients through filters, and then when you actually see the information, the user interface is difficult . . . to read through and flesh out exactly what is actually happening to the patient. You really have to read very carefully the various hyperlinks to keep track of the details of events in care and interventions. It [Searchlight] is a difficult interface" (quote from a physician in a health system panel).

PCMH Implementation Can Improve, as Trust Remains a Barrier for Some Providers
For many providers, an external program that is implemented and funded by a payer elicits concerns about hidden motives to save costs rather than improve the quality of patient care. In addition, providers viewed CareFirst as using an "arm's length" approach that did not fully embrace physicians as collaborating partners to improve quality of care for patients. Because many primary care practices have traditionally viewed health insurance companies as adversaries, trust continues to be a barrier to full implementation of an external PCMH program.

"So the [PCMH] program is good, but the implementation and execution of the program should be changed. They have to make the physicians as team players rather than . . . if you do not get this, you will not get this [understand the PCMH program]. If you do not do this, you will not get this [retrospective bonus]. You have to do this, you have to do that" (quote from a physician in a virtual panel).

"What I see this program as, [CareFirst] wants to save money. To me, every health insurance company is based on profit, no matter what you tell me. As time passes, they will raise the bar every year, [and then tell us] 'you have to do this, you have to do this, you have to do this.' There is no control from our side, from the physician side. We do not [get to] say anything [about] what should be the best thing for the patient" (quote from a physician in a single-independent panel).

Discussion

The CareFirst PCMH program did not require primary care practices to have formal PCMH accreditation to become eligible participants. Our study findings showed that providers in small practices were especially receptive to the LCCs, who represented the core element of the program. Combining solo practitioners and 2-person practices into larger "medical care panels" offers the benefit of sharing best practices across multiple practices, since rewards are based on the performance of panels, not individual doctors or practices.

Qualitative data analysis revealed several broad themes. First, a 1-time 12% payment increase provided short-term awareness of the program and facilitated initial buy-in to participate in the PCMH program, but small financial incentives alone cannot sustain long-term engagement in a program. This important finding is consistent with a recent qualitative analysis that found that financial support was a necessary condition but was not sufficient for PCMH transformation without engaging in the arduous process of improving care coordination.[16] However, providing evidence on quality improvement and patient anecdotes of improved care is likely to support the intrinsic motivation to improve quality, which is vital for sustained physician engagement. Second, the LCCs provided the most value to providers and were especially helpful for smaller practices with resource constraints. These findings are consistent with a previous study that found that knowledge and expertise, technical assistance, and finances are critical resources that can enable transformation in small primary care practices.[17]

Most providers had limited awareness of the Searchlight data portal, which was difficult to use for the small number of individuals who were fa-

miliar with this program element. These findings suggest an opportunity to improve the user-friendliness of the interface. Trust remains a barrier to full PCMH program implementation because of provider concerns that an insurance company is more concerned about cost savings than improving patient outcomes or the quality of patient care. One strategy to build and encourage trust with clinicians is for the LCCs and the payers to highlight anecdotal and empirical evidence that demonstrate the benefits of the PCMH program in terms of improved patient outcomes and satisfaction.

This study had several limitations. First, the study sample for the qualitative analysis was limited to 93 participants in focus groups and 39 telephone interviews. Second, the analysis was restricted to a subset of providers within a single geographic region (Maryland and Northern Virginia), so our findings may not be generalizable to other regions of the United States. Third, the self-reported awareness and attitudes about the PCMH program may be subject to positivity bias if primary care providers with negative views were less likely to participate in the focus groups. However, the study also had strengths. The facilitators provided a number of discussion probes to explore ways in which the PCMH program could be improved. This type of approach for conducting focus groups prompted detailed insights about implementation barriers and was useful in revealing the experiences and perspectives of clinicians and office personnel in small practices. In addition, the multidisciplinary team of researchers who coded the transcripts included both clinicians and nonclinicians. Lessons learned from this study are descriptive and meant to inform future policy and practice.

Conclusion

This study contributes to the growing literature on PCMHs by looking at an example of a single-payer model that did not require small practices to obtain external PCMH certification. In particular, these qualitative findings suggest a number of hypotheses that can inform future research. Since providers in this study viewed external nurse care coordinators as a key element, future studies of PCMH programs should consider whether having nurse practitioners, nonclinicians, or both is necessary for improved care coordination. Another hypothesis is that targeting PCMH re-

sources to a small group of higher-risk patients with multiple chronic conditions is more likely to be effective and replicable in other settings than a broad application of resources to an adult population without chronic conditions.

One policy implication from this study is that requiring external PCMH certification may not be necessary for quality improvement to occur in small practices. Instead, a different approach to encourage the adoption of PCMH elements and practice improvements in small primary care practices may be needed.[18] As of 2013, NCQA reported having more than 34,000 primary care providers in PCMH-certified practices.[19] However, this number of providers represents only 12% of the estimated 294,834 clinicians who provide primary care services.[20] The CareFirst PCMH program offers an innovative way to accommodate the unique needs of smaller practices, while improving care management and coordination. These smaller practices still represent the majority of primary care practices in the United States and serve millions of adult patients in local communities.

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