Support and Strategies for Change Among Small Patient-Centered Medical Home Practices

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ABSTRACT

PURPOSE We aimed to determine the motivations and barriers facing small practices that seek to adopt the patient-centered medical home (PCMH) model, as well as the type of help and strategies they use.

METHODS We surveyed lead physicians at practices with fewer than 5 physicians, stratified by state and level of National Committee for Quality Assurance PCMH recognition, using a Web-based survey with telephone, fax, and mail follow-up. The response rate was 59%, yielding a total sample of 249 practices from 23 states.

RESULTS Improving quality and patient experience were the strongest motivations for PCMH implementation; time and resources were the biggest barriers. Most practices participated in demonstration projects or received financial rewards for PCMH, and most received training or other kinds of help. Practices found training and help related to completing the PCMH application to be the most useful. Training for patients was both less common and less valued. The most commonly used strategies for practice transformation were staff training, systematizing processes of care, and quality measurement/goal setting. The least commonly endorsed strategy was involving patients in quality improvement. Practices with a higher level of PCMH recognition were more likely to have electronic health records, to report barriers, and to use measurement-based quality improvement strategies.

CONCLUSIONS To spread the adoption of the PCMH model among small practices, financial support, practical training, and other help are likely to continue to be important. Few practices involved patients in their implementation, so it would be helpful to test the impact of greater patient involvement in the PCMH.

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INTRODUCTION

The patient-centered medical home (PCMH) is an integral component of health care reform, and a growing number of public- and private-sector PCMH demonstration projects are under way across the country. Although data on the impact of the PCMH on outcomes and costs of care are still limited,[1] some key programs have reported positive effects for quality and reductions in key high-cost services such as emergency department visits.[2,3]

The likelihood that the PCMH model will become the standard approach to primary care in the United States depends on its uptake by small practices. Although small, independently owned practices with 5 physicians or fewer provide the bulk of ambulatory care in the United States,[4] they are less likely than larger practices to be using medical home strategies such as care coordination, enhanced access, and team-based care.[5] The use of systems for quality improvement (QI) is a particular

challenge: a national survey of small and medium-sized practices (1-19 physicians) found that few make use of established techniques: only 10% participated in QI collaboratives, 10% used a rapid cycle QI strategy, 18% collected data from electronic records for quality measurement, and 19% gave performance feedback to physicians.[5]

Little is known about successful strategies for implementing the PCMH model (or other QI efforts) in small practices. Solberg[6] argues that practice transformation requires 3 components: that the practice makes it a priority to improve quality, promotes a culture and implements clear steps for change, and adopts care processes that support improvement. Factors internal to the practice as well as aspects of the external context and health care marketplace can facilitate or block these efforts to improve.[7] Most of the research on QI methods has occurred in larger organizations.[8,9] Berenson et al[8] noted that small practices seeking to implement the PCMH model face particular challenges because of inadequate resources (eg, bearing the cost of investing in health information technology or specialized staff such as diabetes educators) as well as the difficulty of making changes in the face of ongoing patient care responsibilities. A number of factors internal and external to a practice have been shown to affect implementation of QI systems and achievement of high performance. These factors include both capabilities of the practice such as leadership, teamwork, focus on change, and commitment to accountability, as well as adoption of specific strategies for change (eg, use of rapid cycle testing or performance feedback).[10-12] Several reports have argued that technical assistance is needed to help practices through these changes by introducing a framework for change, exposing staff to new ideas, and providing opportunities for peer exchange, although little is known about the types of assistance actually provided or used.[13-15]

Given the growing expectations for small practices to adopt the PCMH model and implement electronic health records, there is a critical need to understand the kinds of strategies and supports that help such practices to achieve successful implementation. We surveyed small practices that achieved different levels of recognition as a PCMH under the National Committee for Quality Assurance (NCQA) Physician Practice Connections' Patient-Centered Medical Home program. We describe here the motivations and barriers they faced, the type of help they received and valued, and the strategies they used as they implemented the PCMH. In addition, we explore how these characteristics and experiences differed between practices with different levels of PCMH implementation, based on the NCQA recognition level.

METHODS
Sampling Approach

NCQA identified a sample of small practices (those having <5 physicians) with the Physician Practice Connections' Patient-Centered Medical Home recognition.[16] NCQA defines a practice as a single geographic site that shares medical records and key office systems. To be considered for recognition, practices voluntarily complete a Web-based questionnaire and attach documentation to support their responses. Trained surveyors review the documentation, and 5% of applications undergo on-site audit. All applications undergo 3 rounds of internal review. Practices could achieve 3 levels of recognition based on the total score as well as their performance on 10 "must pass" elements. On July 15, 2011, when we selected our study sample, there were 2,418 recognized practices: 30.2% were Level 1, 4.3% were Level 2, and 65.5% were Level 3.

To be able to make comparisons between levels of recognition across a number of states, we stratified the sample by Level 1 and 3 (dropping the small number of Level 2 practices). We included only states having both Level 1 and Level 3 recognized practices, and decreased the sampling weight for 2 states with very large numbers of recognized practices (New York and Pennsylvania), so that they did not have greater representation than the distribution of practices nationally. We surveyed the lead physician at the practice; where that was not documented or the practice indicated there was not a single lead physician, we randomly selected a physician.

Of the 2,418 recognized practices, 915 were excluded because they had 5 or more physicians or did not have any physicians. Another 202 practices were excluded because they did not provide primary care services to adult patients, and 59 of the remaining practices were excluded for having Level 2 recognition. Of the 1,242 eligible practices on July 15, 2011, we selected a random sample of 430 practices (split between Levels 1 and 3) for surveying. Twenty-three practices that we later discovered had closed or merged with other practices were replaced randomly. Nine practices that no longer met the definition of small on the basis of data collected after selection or survey completion were excluded.

Practices received a gift basket for participation. The study was reviewed, approved, and monitored by Chesapeake Research Review Inc, an independent, accredited institutional review board.

Survey Methods

NCQA recognition program staff sent e-mail notification about the survey to the identified practice physician, with a link to a Web-based questionnaire. Non-

respondents received additional e-mail reminders, as well as a paper copy of the questionnaire by mail, and multiple attempts at fax or telephone follow-up.

Variables

The questionnaire was developed using insights from in-depth case studies conducted in 6 PCMH-recognized small practices. The questionnaire items were revised on the basis of pretesting and cognitive interviews.

To assess practice priorities, we adapted a single item rating on a 10-point scale used in previous studies to assess the priority for QI to address priority for making the practice more of a PCMH.[9] Higher ratings indicated higher priority.

We adapted items assessing motivations and barriers for QI used in the National Survey of Physician Organizations.[5] For motivations, we asked respondents to rate the importance of 6 factors in the practice's decision to seek NCQA recognition as a PCMH on a 5-point scale (1 = not at all to 5 = very important). We also asked practices to report on the extent to which 6 factors were barriers to implementation of the PCMH model also on a 5-point scale (1 = no barrier to 5 = great barrier).

We asked respondents if they had ever been involved in a demonstration project, pilot project, or other program including those sponsored by state, federal, or health plan entities, or in other initiatives. We also inquired about whether practices received any type of payment for being a PCMH (eg, enhanced fee-for-service remuneration, monthly payments, performance incentives).

Respondents reported whether their practice received any type of help when implementing the PCMH and how useful this help was (very, somewhat, or not at all) for their practice.

Finally, to determine strategies and capabilities for practice change, we used the Change Process Capability Questionnaire (CPCQ) of Solberg et al[9] to assess strategies used to implement the PCMH as well as aspects of organizational culture. Those investigators showed that the CPCQ distinguishes among medical groups and is associated with both change priorities and implemented systems for depression.[9] The strategies scale includes 18 items. The composite is a sum of items rated "yes, worked well" (1 point), "yes, did not work well" (0.5 point), and "no" (0 points). The CPCQ has 14 items addressing capabilities for change; the score is a sum of items rated 4 or 5 on scale from 1 (strongly disagree) to 5 (strongly agree).

Analysis

We present descriptive analyses of individual items and composites. We explored associations between level of recognition and practice type using contingency tables and Pearson χ^2 tests for categorical survey variables. For continuous items and composite scores, associations were tested with independent samples t tests. We did not make any adjustment for multiple comparisons. The study was planned with a recruitment sample size of 430 that was expected to attain 300 completed questionnaires at a 70% response rate in order to achieve 80% power (α = .05, 2-sided tests) to detect a difference by level of 25% vs 40% for binary questionnaire items and a difference in means by Level 1 vs 3 of the Cohen d of 0.3 for continuously scored survey items.

RESULTS

Study Group

Of the 421 eligible practices randomized that met eligibility criteria at the end of the study, 249 practices (59.1%) in 23 states responded. The respondents included 91 Level 1 practices, 125 Level 3 practices, and 33 practices that changed from Level 1 to Level 3 between the time of sampling and completion of the survey period. Because this group that changed generally showed greater resemblance to Level 3 practices, we combined these 2 groups in our analysis. We found no significant differences in response based on practice size or recognition level. Table 1 shows characteristics of the practices and the responding physicians. Level 3 practices were more likely to have a fully electronic health record; the respondents for Level 3 practices were more likely to have graduated from medical school more recently than those in Level 1 practices.

Priorities, Motivators, and Barriers

As shown in Table 2, less than one-third of practices rated PCMH implementation as a very high priority. Improving quality and patient experiences were the strongest motivators for PCMH implementation (across all levels). Time and resources were the biggest barriers, and compared with Level 3 practices, Level 1 practices rated these factors and information systems as significantly greater barriers.

Demonstration Projects, Payment, and Help With PCMH Implementation

More than 75% of the practices participated in demonstration or pilot projects or received financial rewards for PCMH, and almost one-half (45.4%) did both (Table 3). The large majority of practices received training for staff (85.5%) or clinicians (84.2%). More than one-half of these practices received consultation specific to their practice (63.9%) or access to a learning collaborative (59.3%). Most practices received training on how to meet NCQA's recognition requirements (81.3%) or help with preparing their applica-

Table 1. Characteristics of Practices and Responding Physicians

Characteristic	Overall (N = 249)	Recognition Level	
		Level 1 (n = 91)	Level 3[a] (n = 158)
Practice			
Solo physician practice, %	34.9	40.7	31.7
Physicians/NPs/PAs, mean (SD), No.	2.9 (1.6)	2.7 (1.6)	3.0 (1.5)
Total staff (excluding physicians/NPs/PAs), mean (SD), No.	8.2 (5.0)	7.6 (4.8)	8.5 (5.1)
Practice type, %			
Federally designated health center or community health center	14.9	14.3	15.2
Physician owned, independent	20.9	28.5	16.5
Physician owned, affiliated with larger group	27.7	23.1	30.4
Hospital/health system owned	36.5	34.1	38.0
Region, %			
New England (CT, ME, MA, NH, RI, VT)	24.1	28.6	21.5
Northeast (NY, NJ)	13.7	17.6	11.4
Mid-Atlantic (DC, MD, PA, VA, WV)	10.4	15.4	7.6
Southeast (AL, FL, GA, KY, MS, NC, SC, TN)	20.1	12.1	24.7
Midwest (IL, IN, MI, MN, OH, WI)	18.1	15.4	19.6
Southwest (AR, LA, NM, OK, TX)	7.2	8.8	6.3
Plains (IA, KS, MO, NE)	2.8	2.2	3.2
Mountain (CO, MT, ND, SD, UT, WY)	3.2	0.0	5.1
West (AZ, CA, HI, NV)	0.4	0.0	0.6
Northwest (AK, ID, OR, WA)	0.0	0.0	0.0
Fully electronic health record, %[b]	79.6	67.5	86.2
Physician			
Female, %	35.0	33.3	36.0
Race/ethnicity, %[c]			
White, non-Hispanic	78.6	80.2	77.7
Black, non-Hispanic	6.0	10.5	3.4
Asian, non-Hispanic	9.8	8.1	10.8
Hispanic	4.7	1.2	6.8
Other/mixed	0.9	0.0	1.3
Time in this practice, mean (SD), y	13.9 (9.0)	14.8 (9.9)	13.3 (8.5)
Time since graduation from medical school, mean (SD), y[c]	23.4 (9.6)	25.5 (9.7)	22.2 (9.4)

NP = nurse practitioner; PA = physician assistant.

Note: Pearson χ^2 test for categorical variables and independent samples t tests for continuous variables.

[a] Includes practices that entered the study at Level 3 and practices that advanced from Level 1 to Level 3 during the study.

[b] $P < .01$, difference by level.

[c] $P < .05$, difference by level.

least commonly endorsed strategies were involving patients in QI and using formal QI strategies. Only 15.5% of practices said they included patients on QI committees or teams. Many practices reported using some elements of QI methods but seemed not to recognize them as such (eg, 50% said they used pilot testing of new methods, but only 30% said they used formal methods). Compared with Level 1 practices, Level 3 practices scored significantly higher on the CPCQ strategies scale ($P = .01$) and were more likely to use measurement-based strategies such as pilot testing or providing feedback to clinicians.

High ratings of organizational change ability were seen in the areas of clinicians adhering to practice policies, leaders showing enthusiasm for QI, and clinicians espousing a shared mission (Table 5). Lower ratings were seen in the areas of receiving feedback from patients about benefit from changes, practices prioritizing quality of care over finances, and practice operations relying on organized systems. Level 3 practices showed more capability for practice change in the areas of enthusiastic leadership for care, use of organized systems, and availability of resources for quality improvement.

DISCUSSION

Key Findings

This is the first study to examine transformation help and strategies among a national sample of small practices that have independent documentation of PCMH implementation. Of these 249 practices in 23 states, the large majority are participating in demonstration projects or receiving financial rewards for using the PCMH model, and most have received training or other kinds of help. Some demonstration projects require obtaining NCQA recognition for participation. We found some key differences between Level 3 and Level 1 practices—primarily in the availability of fully electronic health records, the types of barriers reported, strategies used for QI, and in

tion (81.0%); they also rated such help related to the recognition program as most useful. Level I practices were more likely to receive training about NCQA recognition requirements. Training and engagement in improvement for patient representatives or partners was both much less common and less valued.

Practice Change Strategies and Ability

The most commonly used strategies for practice transformation were developing systems for care, training, and quality measurement/goal setting (Table 4). The

Table 2. Drivers of Change Among Patient-Centered Medical Home Practices

Change Driver	Overall (N = 249)	Recognition Level	
		Level 1 (n = 91)	Level 3[a] (n = 158)
Priority for "making practice more of a patient-centered medical home,"[b] %	29.8	24.4	32.9
Motivations for PCMH, mean (SD) rating[c]			
To improve quality of patient care	4.4 (0.9)	4.3 (1.0)	4.4 (0.9)
To improve patient experiences of care	4.4 (0.9)	4.3 (1.3)	4.4 (0.8)
To function more efficiently	4.1 (1.2)	4.1 (1.1)	4.0 (1.2)
To become eligible for financial incentives	4.0 (1.1)	4.1 (1.1)	3.9 (1.1)
To meet expectations/requirements set by our medical group or delivery system	3.9 (1.2)	4.0 (1.2)	3.9 (1.3)
To improve clinician experience	3.6 (1.3)	3.5 (1.4)	3.6 (1.3)
To meet expectations/requirements from my specialty society or board	2.8 (1.5)	3.0 (1.4)	2.7 (1.5)
Barriers to PCMH implementation, mean (SD) rating[c]			
Time[d]	3.7 (1.2)	3.9 (1.2)	3.6 (1.2)
Money and other resources to invest in staff, training, or equipment[e]	3.3 (1.3)	3.6 (1.3)	3.1 (1.3)
Information systems[d]	2.7 (1.3)	3.0 (1.4)	2.5 (1.3)
Knowledge and experience	2.5 (1.1)	2.7 (1.2)	2.4 (1.1)
Clinician/staff resistance to change	2.4 (1.2)	2.5 (1.2)	2.3 (1.2)
Clinician/staff turnover	1.9 (1.2)	1.8 (1.3)	2.0 (1.2)

PCMH = patient-centered medical home.

Note: Pearson χ^2 test for categorical variables and independent samples t tests for continuous variables.

[a] Includes practices that entered the study at Level 3 and practices that advanced from Level 1 to Level 3 during the study.
[b] Rating of 9 or 10 on scale of 0 to 10.
[c] Range: 1 to 5, with higher ratings indicating greater barrier.
[d] P <.05, difference by level.
[e] P <.01, difference by level.

most practices did not view PCMH implementation as the highest priority compared with other priorities such as financial goals, QI, or implementing meaningful use requirements for electronic health records.

Second, practices placed the greatest value on tangible supports. Although most practices received training for clinicians and staff, and many also received consultation or access to collaborative support, the type of help they valued the most was training and support related to the NCQA application process. This finding suggests that practices appreciate training directed toward specific goals and help with meeting the requirements for external review more than more general types of assistance.

Third, the use of QI strategies among PCMH-recognized practices highlights the differences between these practices and other small practices. Compared with small practices in the survey by Rittenhouse et al,[5] a larger proportion of PCMH-recognized practices in our survey used rapid cycle QI (51.4% vs 10.2%) and gave performance feedback to physicians (60.3% vs 18.9%). These strategies also distinguish practices with Level 3 vs Level 1 PCMH recognition. Although the use of a fully electronic health record is not specifically required for PCMH recognition, the greater use of these records may support these QI strategies and other activities of the PCMH such as care coordination and population management.

Fourth, most PCMH-recognized practices have yet to engage patients as partners in transformation efforts. Although 30% of practices said they had trained clinicians and staff on involving patients or consumer advocates, only 15% of practices included patients on QI teams. Along with the lower value ascribed to patient training, it appears that PCMH practices may need more help in navigating the practical steps in successful patient engagement; training on how to work with patients and consumer representatives in QI may need to happen before actual training for the patients and advocates. Moreover, practices may need more convincing evidence or experience about the link between patient engagement in QI efforts and achieving their key motivations of improving quality and patient experiences.[17]

particular, the use of measurement-based strategies, On other topics, including priority and motivation for PCMH implementation, types of support received, and organizational capabilities for change, practices with different degrees of PCMH implementation were similar. These findings shed light on the strategies that are important to PCMH implementation and suggest the types of support that all small practices need for the "epic whole-practice reimagination and redesign" that PCMH transformation requires.[13]

First, small practices that have achieved recognition did so in the presence of and likely because of local demonstration projects, financial incentives, and various supports for change. After the desire to improve quality and patient experiences, and improve efficiency, respondents reported that the availability of financial incentives was the strongest motivator to change. Time, resources, and information systems were reported to be barriers for all practices but particularly for Level 1 practices—suggesting that addressing these barriers is critical for helping practices to seek higher levels of PCMH implementation. Importantly,

Table 3. Participation in Demonstration Projects, Receipt of Payment, and Type of Help for Patient-Centered Medical Home Implementation

Measure	Overall (N = 249)	Recognition Level	
		Level 1 (n = 91)	Level 3[a] (n = 158)
Participate in demonstration/pilot project and/or received payment for being PCMH, % responding yes[b]			
Did not participate in a project or receive payment	21.7	14.3	26.0
Participated in project *only*	8.8	11.0	7.6
Received payment for PCMH *only*	24.1	33.0	19.0
Both participated *and* received PCMH payment	45.4	41.8	47.5
Received help for PCMH implementation, % yes			
Training for staff	85.5	81.8	87.7
Training for clinicians	84.2	82.0	85.4
Training for patients/consumer advocates	31.4	28.4	33.1
Consultation/coaching/facilitation specific to practice	63.9	61.6	65.2
Access to a learning collaborative	59.3	55.7	61.4
Training on how to meet NCQA's recognition requirements[b]	81.3	87.8	77.6
Assistance with preparing documentation of application requirements for NCQA's recognition program	81.0	86.5	77.8
Of those who received help, % who found it very useful			
Training for staff	43.5	44.4	43.0
Training for clinicians	41.1	38.4	42.5
Training for consumer advocates	31.6	20.0	37.3
Consultation/coaching/facilitation specific to your practice	47.4	52.8	44.6
Access to a learning collaborative	43.4	51.0	39.4
Training on how to meet NCQA's recognition requirements	52.5	50.6	53.7
Assistance with preparing documentation of application requirements for NCQA's recognition program	67.4	63.6	69.8

NCQA = National Committee for Quality Assurance; PCMH = patient-centered medical home.

Note: Differences calculated with the Pearson χ^2 test.

[a] Includes practices that entered the study at Level 3 and practices that advanced from Level 1 to Level 3 during the study.

[b] P <.05, difference by level.

Finally, the large proportion of Level 1 practices that switched to Level 3 recognition suggest that many PCMH practices are on a continuing journey of transformation. More than one-quarter of Level 1 practices switched during our time frame, and many of the Level 3 practices in this study had previously upgraded from Level 1 before the study. This finding demonstrates that practices are able to successfully navigate the roadmap to greater PCMH implementation.

The Supplemental Appendix (available online at http://annfammed.org/content/11/Suppl_1/S6/suppl/DC1) details some of the contextual factors that my have influenced our findings and that others may wish to consider when undertaking PCMH initiatives in small practices.

Study Limitations

Several limitations affect the generalizability of our findings. Only 59% of practices responded to this survey. This response rate may affect the representativeness of the results, but we did not detect any differences between those that did or did not respond on the basis of characteristics that we could test (number of physicians, number of employees, and recognition level). It would be preferable to gain perspectives from multiple clinicians or staff on some topics; however, our resources allowed for only 1 respondent per practice. Only practices that have NCQA recognition were included. Several other organizations and states qualify practices as medical homes; however, NCQA's program is the largest program, representing nearly 24,000 clinicians. Our study may not be representative of all NCQA-recognized practices because we sought to ensure the ability to compare Level 1 and Level 3 practices. The size of these practices may vary because we used the number of physicians as a determinant of practice size rather than the number of clinicians. In addition, we were unable to include practices led by nurse practitioners or physician assistants because we did not have consistent information about those practices in the NCQA data. Despite these limitations, this survey is the first to look across nearly one-half of US states at transformation experiences of small practices where there is independent confirmation of their PCMH implementation.

Implications

Small practices that have achieved recognition as PCMHs generally do so in the context of financial incentives and other supports. To further spread the adoption of the PCMH model, these efforts are likely to continue to be important. Practices value training and help that answers immediate needs; finding ways to make training more useful and oriented to daily work of practices is important. These practices infrequently included patients in their QI efforts. Policy makers who design demonstration projects

Table 4. Strategies for Practice Change

		Recognition Level	
Strategy	**Overall (N = 249)**	**Level 1 (n = 91)**	**Level 3[a] (n = 158)**
Use of specific strategies, % reporting that it worked well			
Changing or creating systems in the practice that make it easier to provide high-quality care	86.5	82.2	89.0
Providing information and skills training to clinicians and staff[b]	79.0	70.3	84.1
Designing care improvements to make the care process more beneficial to the patient	78.9	82.4	76.7
Periodically measuring care quality to assess compliance with any new approach to care	76.0	72.2	78.2
Setting goals and benchmarking rates of performance quality	73.6	71.1	75.0
Including front-line staff on quality improvement committees or teams	69.1	65.9	71.0
Removing or reducing barriers to better quality of care	65.6	63.3	66.9
Providing to those who are charged with implementing improved care the power to authorize and make the desired changes[b]	64.9	55.6	70.3
Delegating to nonclinician staff the responsibility to carry out aspects of care that were the responsibility of clinicians[b]	63.9	55.6	68.8
Organizing people into teams focused on accomplishing the change process for improved care	60.9	58.0	62.6
Reporting measurements of individual clinician performance for comparison with peer clinicians[c]	60.3	48.9	66.9
Using opinion leaders or role modeling or other strategies to encourage support for changes	57.3	54.4	59.0
Using piloting or pretesting of changes and evaluating the impact before introducing practicewide changes[c]	51.4	38.2	59.0
Designing care improvements to make physician participation less work than before[b]	46.9	38.9	51.6
Providing training to clinicians and staff on how to involve patients/families in quality improvement	30.1	27.4	31.6
Using formal quality improvement or efficiency approaches (eg, Lean, Plan-Do-Study-Act, rapid cycles, Six Sigma, Model for Improvement)	30.5	26.7	32.9
Including patients on quality improvement committees or teams	15.5	12.1	17.5
Overall score, mean (SD)[b]	11.5 (3.8)	10.7 (4.1)	11.9 (3.5)

Note: Pearson χ^2 test for categorical variables and independent samples t tests for continuous variables.

[a] Includes practices that entered the study at Level 3 and practices that advanced from Level 1 to Level 3 during the study.

[b] P <.05, difference by level.

[c] P <.01, difference by level.

[d] Range: 0 to 18, with higher scores indicating greater use of strategies.

Table 5. Items Assessing Organizational Change Ability

		Recognition Level	
Item	**Overall (N = 249)**	**Level 1, % (n = 91)**	**Level 3,[a] % (n = 158)**
The clinicians in our practice adhere to practice policies.	83.3	82.2	83.9
The leaders of our efforts to improve care quality are enthusiastic about their task.[b]	82.3	74.4	86.7
The clinicians in our practice espouse a shared mission and policies.	79.8	75.8	82.1
The working environment in our practice is collaborative and cohesive, with a shared sense of purpose, cooperation, and willingness to contribute to the common good.	77.4	76.9	77.1
When making changes at our practice, we choose new processes of care that are more advantageous than the old for everyone involved (patients, clinicians, and our entire practice).	68.7	71.1	67.3
The thinking of our leadership is strongly oriented toward systems.	68.0	61.1	72.1
We have greatly improved the quality of care in the past year.	67.3	61.1	70.9
We have many clinician and staff champions interested in leading the improvement of care quality.	64.2	58.4	67.5
Most of the other health care resources in our community (hospitals, community groups, specialist offices) are supportive of the medical home concept.	59.5	59.6	59.5
Our practice operations rely heavily on organized systems.[b]	58.5	48.9	64.1
Our practice attaches more priority to quality of care than to finances.	57.7	62.5	55.1
We have received feedback from patients that they have benefited from the changes we have made.	56.5	53.3	58.2
Our practice is undergoing considerable stress as the result of internal changes. (reverse coded)	41.9	47.2	38.9
Our resources (personnel, time, financial) are too tightly limited to improve care quality now. (reverse coded)[b]	21.1	28.1	17.2
Overall score, mean (SD)[b,c]	9.5 (3.0)	9.0 (3.2)	9.8 (2.8)

Note: Values are percentage that agree or strongly agree. Pearson χ^2 test for categorical variables and independent samples t tests for continuous variables.

[a] Includes practices that entered the study at Level 3 and practices that advanced from Level 1 to Level 3 during the study.

[b] P <.05, difference by level.

[c] Range: 1 to 14, with higher scores indicating greater change ability.

and organizations that qualify practices as PCMHs should consider how to balance incentives for practices to organized systems as well as to promote patient engagement. Research is needed to demonstrate and identify the most successful ways to engage patients in PCMH implementation.

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