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# Reasons Primary Care Practices Chose Patient Experience Surveys During Patient-Centered Medical Home Transformation

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**Abstract:** Patient-centered medical home takes years to attain. Fifteen-to-eighteen percent of US primary care practices in 2008-2017 sought or maintained patient-centered medical home recognition. We conducted interviews with a stratified-random sample of 105 of these practices to determine why patient experience surveys were chosen. Fifty-one were using a Consumer Assessment of Healthcare Providers and Systems survey and 53 administering another patient survey. The 3 most common reasons were (1) to compare performance against other practices, which requires systematically collected data across large numbers of practices (ie, the Consumer Assessment of Healthcare Providers and Systems survey), (2) participation in an external patient-centered medical home program, and (3) survey administration cost. Leaders invested in a second patient survey for quality improvement needs. **Key words:** CAHPS, patient-centered care, patient-centered medical home, patient experience, quality improvement, quality measurement, survey

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**P**OLICY MAKERS, providers, and insurers turned to the patient-centered medical home (PCMH) as a potential solution to the fragmented, inefficient delivery of US health care (Fifield et al., 2013; Perry et al., 2016; Pines et al., 2015; Timbie et al., 2017). Patient-centered medical home focuses on team-based care to better address patient needs, continuity and coordination of care, enhanced access, and aligning incentives for quality and patient safety (National Committee for Quality Assurance, 2017). Patient-centered medical home requires changes to nearly every aspect of care (Nutting et al., 2009; Wagner et al., 2014), takes years (Sugarman et al., 2014), requires resources (Qureshi et al., 2020; Stout & Weeg, 2014), and fundamental shifts in orientation and practice culture (Cronholm et al., 2013).

Capturing data related to these PCMH changes is key to making care

more- patient-centered. Providers typically use patient experience survey data to make care more patient-centered (Friedberg et al., 2009; Geissler et al., 2013; Quigley et al., 2015), often using it alongside other data to identify and monitor improvement and establish training and accountability structures. Evidence from individual health systems (Afendulis et al., 2017; Davies et al., 2008; Quigley et al., 2015; Quigley et al., 2017; van den Berk-Clark et al., 2018), literature reviews (Schlesinger et al., 2015) and statewide efforts (Friedberg et al., 2011; Kern et al., 2013; Paustian et al., 2014) indicate that patient experience data are used for quality improvement (QI) and focusing on PCMH goals (Cousart et al., 2019; Maeng et al., 2012; Maeng et al., 2013; Quigley et al., 2020; Quigley, Qureshi, AlMasarweh, et al., 2021; Quigley, Slaughter, Qureshi, et al., 2021; Xenakis et al., 2020).

National Committee for Quality Assurance (NCQA) included patient experience measurement and its use for QI in their PCMH standards to drive more widespread measurement and use of patient experiences and also to evaluate whether PCMH changes are successful from the patient perspective. To this aim, the Consumer Assessment of Healthcare Providers and Systems (CAHPS) PCMH items were designed to measure relevant PCMH topics, such as after-hours access and self-management support (Hays et al., 2014; Scholle et al., 2012). Despite the existence of the gold standard CAHPS survey, other patient surveys exist that may capture similar concepts. Yet, research on practice leaders' decisions about choice of patient experience survey during PCMH is lacking. We investigate what patient experience survey practice leaders chose to use, how they were administered, and the rationale for their choices.

## METHODS

### Design and sample

We conducted a stratified random selection of practices across the US by region (Northeast/Midwest/South/West) (U.S. Department of Commerce, 2018), physician

count, PCMH-level and years of recognition, and administration of the CAHPS Clinician and Group Survey (CG-CAHPS) plus PCMH items (Agency for Healthcare Research and Quality, 2021). All practices were in the 2008-2017 NCQA PCMH recognition directory (National Committee for Quality Assurance, 2017) and had applied for NCQA PCMH recognition. The NCQA is the most widely adopted PCMH program in the United States with an estimated 13 000 practices, roughly 15% to 18% of all US primary care practices, obtaining NCQA PCMH recognition 2008-2017 (National Committee for Quality Assurance, 2017). The national sample included 105 of 294 practices (36% response rate). Both code saturation (ie, heard all themes) and meaning saturation (ie, understanding all themes) are achieved with 12 interviews per type and we had minimum 31 per group (Hennink & Kaiser, 2022; Hennink et al., 2017). Sampling is described elsewhere (Qureshi et al., 2020). See Supplemental Digital Content Table 1, available at: <http://links.lww.com/JACM/A128>, which lists detailed practice characteristics. The sampling goal was to construct a national sample of practices representing those who currently, previously, and never used the CAHPS-PCMH survey; sampling was not meant to approximate national distribution of primary care practices.

We identified practice leaders knowledgeable about PCMH implementation through self-attestation of their presence at the practice during PCMH implementation and their role within PCMH. We conducted hour-long phone interviews, administered the PCMH Assessment (Safety Net Medical Home Initiative, 2019) (after the interview via e-mail), and collected copies of any non-CAHPS patient experience surveys used during PCMH transformation. Data collection was from June to October 2017 and April to June 2018; the 5-month break resulted from a federal shutdown/stop-work-order. We recorded and transcribed the interviews, providing a \$75 honorarium. See Supplemental Digital Content Table 2, available at: <http://links.lww.com/JACM/A129>, which provides detailed practice leader characteristics.

## Analytic approach

We entered transcripts into Dedoose, a Web application for analyzing qualitative data (Dedoose Version 8.0.35, 2018). We established structural codes that mapped to research questions (Bernard & Ryan, 2010) using systematic, inductive procedures to generate insights from responses (Bradley et al., 2007) and develop themes (Charmaz, 2000; Glaser & Strauss, 1967). We coded early transcripts independently, noting topics, survey used, decisions about survey choice, and experiences with NCQA PCMH recognition. We conducted content analysis to identify topics (Krippendorff, 2004) and finalized our codebook (Bernard & Ryan, 2010). We used team meetings to reach consensus, identify discrepancies, refine concepts, and define codes (Miller & Crabtree, 1999). Coders suggested new codes and the coding team discussed codebook changes and resolved discrepancies by consensus. We employed interrater reliability exercises among the four-person coding team, compared coding agreement between coders, and obtained a pooled kappa coefficient (0.93), indicating “very good” agreement (Cohen, 1960; Landis & Koch, 1977). We employed ongoing training among coders on emerging subcodes using the training module.

We examined the patient experience surveys administered and used rationale for those choices, and the process practice leaders underwent to make these decisions. We reviewed similarities and differences by PCMH history and by survey.

Study protocols were approved by RAND’s Human Subjects Protection Committee (IRB\_Assurance\_No:FWA00003425; IRB\_Number:IRB00000051) and by the US Office of Management and Budget (OMB\_No. 0935-0236).

## RESULTS

### Patient experience surveys

Thirty-three practices (of 105) were currently administering the CAHPS-PCMH survey, 18 practices (10 that had never

administered and 8 that had previously administered CAHPS-PCMH) were currently administering a CG-CAHPS survey (without PMCH items), and 53 practices were administering a non-CAHPS patient experience survey; 1 practice was not administering a patient experience survey (they were finalizing use of the CAHPS-PCMH survey). Of these 53 practices, 30 administered a “homegrown” survey and 23 used another standardized survey (eg, Crossroads, Medstatic, Press Ganey proprietary survey). Half of the practices that administered a “homegrown” survey included actual CAHPS items, either by using a subset of CG-CAHPS items (5/30) or by adapting CAHPS items (8/30). Eight practices administering the CAHPS-PCMH survey administered multiple surveys (Table 1).

Despite differing survey choices, half administered both English and Spanish patient experience surveys and the other half administered English-only surveys. The most common vendor was Press Ganey (30%), followed by in-house administration (26%) and the most common mode was mixed-mode (31%) using mail with e-mail follow-up, followed by mail-only (23%), in-office-only (20%), or e-mail only (15%). Of the practices administering the CAHPS-PCMH survey, half (51%) used the 12-month reference version, 22% the visit-based survey, 8% a 6-month reference version, and 8% chose a different reference period (eg, 3-month reference period) (Table 2).

Seventy-seven percent of practices included the option for patients to provide narrative responses on the survey. Of those, the majority (78%) offered comment text boxes (1 or more times throughout the survey) and the remaining (23%) used a single open-ended question. Half (52%) that currently administered the CAHPS-PCMH survey included an open-ended question and 80% of both those that previously administered and never administered the CAHPS-PCMH survey included an open-ended question. A practice leader pointed out how comments help QI:

We monitor wait times, we keep going back and look at those measures, we also read patient

**Table 1.** Patient Experience Surveys Used, Vendor and Reporting Frequency

	Never Administered CAHPS-PCMH Survey (N = 41)	Currently Administered CAHPS-PCMH Survey (N = 33)	Previously Administered CAHPS-PCMH Survey (N = 31)	Total (N = 105)
Patient experience survey <sup>a</sup>	% (N)	% (N)	% (N)	% (N)
CAHPS + PCMH	0% (0)	100% (33)	0% (0)	31% (33)
CG-CAHPS	24% (10)	0% (0)	26% (8)	17% (18)
Homegrown	46% (19)	0% (0)	35% (11)	29% (30)
Non-CAHPS standardized survey	29% (12)	0% (0)	35% (11)	22% (23)
No patient experience survey	0% (0)	0% (0)	0% (1)	0% (1)
Years using patient experience survey	Mean Years (N)	Mean Years (N)	Mean Years (N)	Mean Years (N)
Using <i>any</i> patient experience survey	8.7 (41)	7.8 (33)	6.7 (31)	7.8 (105)
Using CAHPS survey	4.4 (14)	6.0 (33)	3.0 (28)	4.6 (75)
Using CAHPS-PCMH survey	0 (0) <sup>a</sup>	5.8 (33)	2.0 (28)	4.1 (61)
Vendor	% (N)	% (N)	% (N)	% (N)
Press Ganey	32% (13)	30% (10)	26% (8)	30% (31)
In-house (or internal)	39% (16)	3% (1)	32% (10)	26% (27)
National Research Corporation (NRC)	2% (1)	9% (3)	6% (2)	5% (6)
eClinicalWorks	2% (1)	18% (6)	2% (1)	8% (8)
Crossroads	12% (5)	0% (0)	0% (0)	5% (5)
DataStat	0% (0)	12% (4)	2% (1)	5% (5)
Other	10% (4)	27% (9)	26% (8)	20% (21)
Do not know	2% (1)	0% (0)	2% (1)	2% (2)
Reporting frequency				
Annually	12% (5)	42% (14)	6% (2)	20% (21)
Biannually	7% (3)	0% (0)	2% (1)	4% (4)
Quarterly	17% (7)	12% (4)	29% (9)	19% (20)
Monthly	37% (15)	21% (7)	23% (7)	28% (29)
Weekly	2% (1)	0% (0)	0% (0)	1% (1)
Real time	12% (5)	18% (6)	19% (6)	16% (17)
No regular reporting	0% (0)	0% (0)	10% (3)	3% (3)
Do not know	12% (5)	6% (2)	10% (3)	10% (11)

Abbreviations: CG-CAHPS, Consumer Assessment of Healthcare Providers and Systems Clinician and Group Survey (CG-CAHPS); PCMH, patient-centered medical home.

<sup>a</sup>One practice was not administering a patient experience survey at the time of the interview; they were finalizing a contract to use the CAHPS-PCMH survey, so "type of patient experience survey" totals to 104.

**Table 2.** Patient Experience Survey Mode, Language, Reference, and Open-Ended Options

	Never Administered CAHPS-PCMH Survey (N = 41)	Currently Administers CAHPS-PCMH Survey (N = 33)	Previously Administered CAHPS-PCMH Survey (N = 31)	Total (N = 105)
	% (N)	% (N)	% (N)	% (N)
Mode +				
Single mode	59% (24)	73% (24)	68% (21)	66% (69)
Mixed mode	37% (15)	27% (9)	29% (9)	31% (33)
Do not know	5% (2)	0% (0)	2% (1)	3% (3)
Language				
English	34% (14)	64% (21)	52% (16)	49% (51)
English and Spanish	63% (26)	36% (12)	45% (14)	50% (52)
Reference period				
12 mo	7% (3)	48% (16)	23% (7)	25% (26)
6 mo	2% (1)	9% (3)	0% (0)	4% (4)
3 mo	10% (4)	0% (0)	0% (0)	4% (4)
Visit-based	2% (1)	30% (10)	2% (1)	11% (12)
Do not know	2% (1)	12% (4)	0% (0)	5% (5)
None	76% (31)	0 (0%)	74% (23)	51% (54)
Open-ended options				
Included open-ended text box(es) and open-ended question	80% (33)	48% (16)	81% (25)	70% (74)
Only comment text box(es)	59% (24)	42% (14)	61% (19)	54% (57)
Only open-ended question(s)	22% (9)	6% (2)	19% (6)	16% (17)

Abbreviations: CAHPS, Consumer Assessment of Healthcare Providers and Systems; PCMH, patient-centered medical home.

comments to see if we're still getting the same issues raised by patients. We use the Plan-Do-Study-Act process to review our newly-implemented processes to make sure they are working, and made an impact, adjusting if we need to. —CT-11421

Practices currently administering the CAHPS-PCMH survey had administered the CAHPS-PCMH survey twice as long on average as sites that had previously administered the CAHPS-PCMH survey, whereas practices that had never administered the CAHPS-PCMH survey had administered their current patient experience survey on average 1 year longer than practices currently administering the CAHPS-PCMH survey and on average 2 years longer than practices that had previously administered the CAHPS-PCMH survey.

### **Decisions about patient experience surveys**

Several themes emerged about how patient experience surveys were chosen and why practices changed surveys. Patient experience surveys were selected for 3 main reasons: (1) a leadership decision (rather than an implementation or care delivery improvement decision), (2) participation in an external PCMH program, and (3) costs associated with administering CAHPS surveys.

Eighty-one percent of practices reported selecting their patient experience survey based on a leadership decision. In these cases, the patient experience survey was selected by the leaders in charge of the practice, not those in charge of implementing PCMH changes in the practice. The decision was not about the specific content of the CAHPS-PCMH survey but about the practice leaders' ability to benchmark performance against other practices on standardized metrics. Twenty percent reported that their practice chose their patient experience survey primarily to meet NCQA's quality measurement PCMH standard; this was most common in practices that previously implemented the CAHPS-PCMH survey. Practices that never administered the CAHPS-PCMH survey instead most often developed their

own homegrown surveys to target specific areas of PCMH change they were focusing on. One practice leader reported:

For QI, we actively measure using our patient experience surveys. We have access measures that each clinic has to choose an area to work on. [SITE] worked on no-shows by focusing on better utilization of staffing schedules, which is an administration issue, but also the measures on our patient experience survey that tell us whether patients are getting in for appointments in a timely manner. We have survey questions about appointments for new patients, physicals, hospital follow-up visits, and we looked at this by established and new patients. Administratively, we review data on same-day availability. We need to know this patient data to understand, Are we giving enough access for same-day availability? Is the access we're providing something being used, and meeting the needs of patients? Another site tracked continuity of care. They reviewed data to answer, How does all of the scheduling work with continuity of care? Are providers seeing their actual patients? What do patients say about this? All of that stuff is measured quarterly on our own patient experience survey to help us know where are we going? Is it improving; is it not improving? —CT-13393

Practices that either never implemented or previously implemented the CAHPS-PCMH survey were more likely to report using the CAHPS survey before their initial PCMH implementation. Practices currently administering the CAHPS-PCMH survey chose to pursue PCMH in tandem with the choice to administer the CAHPS-PCMH survey rather than making these choices independently.

More than 70% of practices chose to change their patient experience survey during the course of PCMH transformation. Practices that previously administered the CAHPS-PCMH survey were the most likely to change their patient experience survey. Many of the practices that previously implemented the CAHPS-PCMH survey were part of programs or initiatives that mandated the CAHPS-PCMH survey. Once those programs ended, or once those programs required practices to pay administration costs for the CAHPS-PCMH survey, those practices chose to either stop

or switch to a new survey. A practice leader pointed out:

We do our own surveys. We did CAHPS-PCMH when we were still within the [NAME] state program. We're no longer part of that program, and they were the ones to mail out CAHPS surveys. We didn't do that ourselves, but because we were part of that group, they did it for us, and then gave us the data and feedback. Here internally, we have our own patient surveys we give to our patients usually twice a year, with obviously different questions to see how we're doing; some questions are similar to CAHPS questions. —PD-4170

Practices that currently administer the CAHPS-PCMH survey reported that they added an additional survey alongside their use of the CAHPS-PCMH survey, which was required for NCQA's Distinction of Patient Experience Reporting. A variety of factors dictated the addition of a second patient experience survey, but the most common reason mentioned was the desire to obtain patient experience data more frequently so that the data would be more useful for implementing and monitoring PCMH changes (rather than for other reasons such as public reporting or performance tracking or benchmarking). Some practices mentioned that they chose to add a second survey to target specific aspects of patient experience, such as probing more closely on wait times or laboratory test turnaround. One practice leader explained:

CG CAHPS is only done once a year and our supplemental survey is done for every visit, every procedure, for all our patients; ours' is more comprehensive and more timely. We get data from our survey monthly. —CD-4064

Common across all practices was the desire to change from the core CG-CAHPS survey or the CAHPS-PCMH survey due to the high cost of administration. Practices that were able to have survey administration paid through a state program or by a larger network/organization did not report issues with the CAHPS survey administration costs. A practice leader with these circumstances stated:

We've had an internal patient survey for the last 22 years. It's fairly robust, but we realized that it did not have the ability to generalize or make comparisons; it wasn't vetted by evidence-based and random controlled studies, so we started doing the CAHPS program. We did HCAHPS in the hospital first. We actually hired a company to do the CAHPS surveys and liked that very much. Unfortunately, there is a cost of that service to administer CAHPS, and it's hard to spend money on surveys. It was costing us \$20,000-\$25,000 a year. —PD-4273

## DISCUSSION

Patient-centered medical home transformation aims to redesign primary care delivery, focusing on patient-centered care that is comprehensive, coordinated, accessible, and high quality. To achieve these goals and standards, practices make many changes to their practice over several years. Practices typically measure patient experiences of care to meet PCMH goals. Most measure patient experience using a CAHPS survey (Accreditation Association for Ambulatory Health Care, 2020; The Joint Commission, 2020). The CAHPS data provide practices with valuable information for QI activities centered on patients and specifically to improve patient centeredness, as it helps practice leaders to maintain focus on patient experience as it reviewed alongside other practice data (eg, operational, clinical/health outcomes) (Quigley et al., 2015; Quigley, Qureshi, AlMasarweh, et al., 2021). We found that the 3 most common reasons for choosing a patient experience survey during PCMH were (1) to compare performance against other practices, which requires systematically collected data across large numbers of practices, that is, the CAHPS survey, (2) participation in an external PCMH program, and (3) cost of survey administration. Leaders also reported investing in a second patient survey to gain specific, timely actionable information for QI needs.

Practices who chose to administer the CAHPS-PCMH survey did so because of their participation in programs that required the use of the CAHPS-PCMH survey and the



ability to benchmark performance against other practices. Evidence from a large single organization case study in California indicated that CAHPS data were used for QI during PCMH transformation alongside other data to identify and monitor areas of improvement and to establish training and accountability structures with primary care providers to improve performance (Quigley et al., 2015). The CG-CAHPS data have also helped practice leaders and providers support a range of mechanisms to undergo practice change, including performing daily huddles, adding or restructuring staff, supporting stable care teams, planning and coordinating with care teams, and assessing provider performance on patient-provider interactions. Our findings expand this evidence on the use of CAHPS data during PCMH transformation and point out the importance of its use for benchmarking performance against other practices. Benchmarking allows practice leaders to identify when they are performing similar or better to other practices in addition to highlighting areas for needed and continued improvement. Given that the PCMH transformation process takes years to both attain and maintain recognition, the ability to track performance against other practices is an important tool for practice leaders and possible only with a survey that is administering systematically and similarly across a large number of practices.

Practice leaders in past studies have reported that key areas of PCMH change are mostly covered in the CG-CAHPS survey (Quigley et al., 2017). They reported using CG-CAHPS data to improve access to routine and urgent care, wait times, providers spending enough time and listening carefully, and courteousness of office staff. Other evidence indicates that several non-CAHPS topics are commonly measured for PCMH transformation: ease of scheduling, being informed about delays, and provider helpfulness/courteousness (Xenakis et al., 2020). Our study expands this by indicating that practice leaders also choose to administer an additional survey alongside the CAHPS-PCMH survey to allow them to target and

improve areas of patient experience not found on the CG-CAHPS survey, such as probing more closely on wait times, laboratory test turnaround, visit type, or specific procedures. We also found that practices that never administered the CAHPS-PCMH survey and instead developed their own homegrown survey did this to target the specific areas of PCMH change they were focusing on. Taken together, these findings highlight that practice leaders will develop their own surveys, add measures, and/or collect additional data when they deem it necessary for making improvements to achieve PCMH transformation.

### Limitations

First, although the sample of practices was large, varied, and included practices with a range of PCMH history, it is not a nationally representative sample of practices. The study sample reflects a group of practices that are often motivated by reimbursement mandates and enforced by leadership. Also, an unknown number of practices are probably using patient surveys to improve their care processes but have not chosen to pursue NCQA PCMH certification. As such, results are reported in percentages to show the variety and breadth of responses reported by practice leaders. Practice leaders knowledgeable about PCMH and patient experience data may not know all the reasons that a survey is chosen. Future work is needed to determine whether there is alignment between practice leaders' perspectives and other leadership, especially in larger organization, concerning selection of patient experience measurement and survey choices.

Practices have diverse, varied approaches to pursuing PCMH recognition, including what practices leaders decide to measure and track as part of their improvement efforts. The CAHPS-PCMH survey helped practice leaders by providing standardized, systematic data on key patient experience domains that they used for benchmarking and comparison against other practices for continued improvement. Practices that needed to measure

and improve areas of patient experience not included on CAHPS surveys (such as wait times, laboratory test results) or wanted their data more frequently chose to administer a second patient experience survey alongside their CAHPS survey. Practice's patient experience measurement and improvement choices

are a foundational stepping stone and tool for their PCMH transformation, part of which can be realized only when practices choose a standardized patient experience tool such as the CAHPS-PCMH survey that collects data systematically and similarly across a large number of practices.

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