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Some Aspects of Patient Experience Assessed by Practices Undergoing Patient-Centered Medical Home Transformation Are Measured by CAHPS, Others Are Not

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Background and Objectives: Delivering care as a patient-centered medical home (PCMH) is being widely adopted across the United States by primary care practices to better meet patient needs. A key PCMH element is measuring patient experience for practice improvement. The National Committee for Quality Assurance (NCQA) PCMH recognition program requires practices to both measure patient experience and engage in continuous practice/quality improvement to attain PCMH recognition and then throughout full PCMH transformation. The NCQA recommends but does not require that practices administer the Consumer Assessment of Healthcare Providers and Systems (CAHPS) clinician and group patient experience survey (CG-CAHPS) plus 14 CAHPS PCMH items, known as the CAHPS PCMH survey. We examine aspects of patient experience measured by practices with a varying number of years on their journey of PCMH transformation. **Methods:** We randomly selected practices from the 2008-2017 NCQA directory of practices that had applied for PCMH recognition based on region, physician count, number of years and level of PCMH recognition, and use of the CG-CAHPS PCMH survey. We collected characteristics of the practices from practice leader(s) knowledgeable about the practice's PCMH history and patient experience data. We confirmed the patient experience surveys used during their PCMH history and requested copies of their non-CAHPS survey(s). For practices not administering the recommended CG-CAHPS survey (53/105 practices), we obtained and coded the content of their non-CAHPS surveys (68%; 36/53). We mapped the patient experience domains and specific measures to the CG-CAHPS survey (versions 2.0 and 3.0), CAHPS PCMH item set (versions 2.0 and 3.0), and the available CG-CAHPS supplemental items. **Results:** Whether or not practices administered the CG-CAHPS items, most of them addressed topics contained in the CG-CAHPS survey such as Access to care, Provider communication, Office staff helpfulness/courteousness, Care coordination, and Shared decision-making. The most common CAHPS measures included were Office staff helpfulness/courteousness and Provider communication. Common non-CAHPS measures included were Ease of scheduling, Being informed about delays, and Provider helpfulness/courteousness. **Conclusion:** NCQA PCMH practices included CAHPS items on their patient experience surveys even if they did not administer the full CG-CAHPS survey or the recommended CAHPS PCMH survey. To enhance the usefulness of patient experience surveys for practices undergoing PCMH changes, additional CAHPS measures could be developed related to key areas of PCMH change, including expanded access to care (ie, after-hours and weekend visits, ease of scheduling, being informed about delays), use of shared decision-making, and improvements in provider communication (ie, the provider is courteous, communication by other clinical staff members with the patient). These additional measures would assist practice leaders in capturing the breadth and depth of their PCMH transformation and its influence on providing more patient-centered care. Developing such items would help standardize the measurement of changes related to patient experience during PCMH transformation. Research is needed to determine whether a CAHPS survey is the best source of this information.

Key words: CAHPS, patient-centered medical home, patient experience, survey measures

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The patient-centered medical home (PCMH) model of primary care delivery has a rich history beginning in the 1960s.¹ The model was originally developed to provide comprehensive and continuous care to children¹ but was adapted to help redesign how fragmented primary care had become due to the increased utilization of specialties, growing specialized and technologically sophisticated care,²⁻⁵ and the decreased number of medical residents choosing primary care.⁶ Practices can obtain acknowledgement as a PCMH from several organizations, such as the National

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Committee for Quality Assurance (NCQA). The NCQA PCMH recognition program is the most widely adopted program in the country, with an estimated 13 000 practices obtaining NCQA PCMH recognition in the United States from 2008 to 2017.⁷

The NCQA provides guidance, resources, and oversight to help practices obtain recognition as a PCMH. Practices applied to the NCQA for PCMH recognition and received a level 1, level 2, or level 3 designation of how well they met the PCMH standards (ie, level 1 ranged between 35 and 59 points, level 2 ranged from 60 to 84 points, and level 3 ranged from 85 to 100 points; all 3 levels required 6 of 6 must-pass elements). With the NCQA, PCMH level 3 signifies that the practice has become an advanced primary care practice. This designation means that the practice has undergone a transformation in quality and safety enhancement and has established a foundation for coordination across the continuum of care. This means that the level 3 practice, for example, offers extended hours, care management to patients with chronic illnesses, etc, that are the core PCMH must-pass elements, and some practices also offer the optional criteria elements such as behavioral health integration, referrals to specialists, or other advanced services. So, level 3 indicated the practice is an advanced primary care practice and is an accredited PCMH recognized practice.

Typically, to maintain their accreditation as a PCMH recognized practice and to meet the various elements of the 6 PCMH standards, which evolved every 3 years (ie, 2008, 2011, 2014, 2017), level 3 PCMH recognized practices continued to pursue changes related to additional or new aspects of the PCMH standards (either core or optional) and reapplied to maintain their accreditation as PCMH recognized as an advanced primary care practice, indicating that initial recognition as a level 3 PCMH only starts a practice's journey of PCMH transformation.

The overarching goal of PCMH transformation is inherently focused on improving care provided to patients and includes a requirement that practices measure patient experience and use these data to implement quality improvement (QI) to improve patient experience. The collection of patient experience survey data is a vital part of performance measurement and the associated QI activities that are at the center of transforming into a PCMH and maintaining PCMH recognition.⁸ Practices, however, are not required by the NCQA to collect patient experience data using a specific survey. Rather, it is *recommended*, but optional, to administer the Consumer Assessment of Healthcare Providers and Systems (CAHPS) clinician and group survey (CG-CAHPS). The CG-CAHPS survey was designed to inform practices about patient experiences of ambulatory care in areas that the patient is the best source of information and to be used for QI to make care experiences higher quality and more patient-focused.^{9–11} CAHPS surveys, developed in 1995, are now the US standard for collecting information about patient experiences of care.^{12–14} In 2009, the CAHPS PCMH item set was developed in collaboration with the NCQA to reflect NCQA PCMH

standards. A survey that combines the CAHPS PCMH item set and the CG-CAHPS core items is known as the CAHPS PCMH survey.¹⁵ Similar to the CG-CAHPS survey, the NCQA recommends that practices use the CAHPS PCMH survey to guide their transformation process, but it is optional.

Despite the large number of practices recognized by the NCQA as PCMHs, no research to date has summarized the content of the patient experience surveys administered by practices as they make changes to attain initial recognition as a PCMH and then over the course of their PCMH transformation. We collected characteristics of practices from practice leaders knowledgeable about the practice's PCMH history and patient experience data. We asked about the history of their patient experience surveys used for their PCMH application and PCMH transformation and examined the content of the patient experience surveys administered during PCMH transformation. The goal was to examine and describe the patient experience content areas that practice leaders included in their patient experience surveys during their PCMH transformation. We reviewed and coded the content of the survey questions, and identified whether the content aligned with the NCQA PCMH recommended CG-CAHPS 2.0 or 3.0 domains or recommended CAHPS PCMH 2.0 or 3.0 items, or the CG-CAHPS supplemental items.

METHODS

Design

We randomly selected practices from across the United States from the census of approximately 15 000 practices that had applied for NCQA PCMH recognition from 2008, when the NCQA recognition program began to 2017,¹⁶ stratified by region, physician count, PCMH history, and use of the NCQA-recommended CAHPS PCMH survey (never, previously, or currently administered). Practices were sampled across these key dimensions to gain a broad range of practices across the United States pursuing PCMH recognition. Our analyses first examined results by whether the practice used a CAHPS survey or a non-CAHPS survey and then examined results also by type of the CAHPS survey used (ie, CG-CAHPS survey, CAHPS PCMH survey). All practices had applied for NCQA PCMH recognition and received a level 1, level 2, or level 3 designation of how well they met the NCQA PCMH standards: level 1 or level 2 indicates an aspiring PCMH practice, whereas level 3 designates the attainment of NCQA's PCMH recognition. We measured PCMH history by both the level of NCQA PCMH recognition and the length of time a practice had maintained its level 3 PCMH recognition status: level 3 PCMH status for less than 3 years, 3 to 5 years, or 5 years or more. We included adult practices and excluded pediatric practices.

We collected practice characteristics and information about PCMH changes and patient experience data from practice leaders knowledgeable about the practice's PCMH history and patient experience data. Practice leaders were identified on the basis of their knowledge

of the practice's PCMH application process, changes, and use of data to meet PCMH goals. We confirmed the patient experience surveys used during their PCMH history and requested copies of their non-CAHPS patient experience survey(s). All study protocols were approved by RAND's Human Subjects Protection Committee (FWA00003425), the Institutional Review Board of record, and by the Office of Management and Budget.

Data

We collected information on 105 practices. We confirmed the patient experience surveys used during their PCMH history and requested copies of non-CAHPS patient experience surveys. To include a large stratified sample of practices, data were collected from June 2017 to June 2018.

Analytic approach

We uploaded the non-CAHPS surveys into Dedoose,¹⁷ a Web application for managing, analyzing, and presenting qualitative and mixed-methods research data. We developed an *a priori* codebook and identified categories for the codes.¹⁸ Three coders (L.X., C.P., N.Q.) coded surveys independently, noting all patient experience topics. During team meetings, the coding team explored the data to reach consensus on codes, identify discrepancies, refine concepts, and define codes for analysis.¹⁹ We employed interrater reliability exercises with the senior subject matter expert (D.D.Q.) and 3 coders (L.X., N.Q., C.P.) to refine codes and code descriptions. After code refinement, we estimated a pooled κ of 0.94, indicating very good agreement.^{20,21} We conducted content analysis to identify the domains and measures on the surveys. We then mapped the coded list of patient experience domains and specific measures to the content of CG-CAHPS 2.0 and 3.0 surveys, CAHPS PCMH item set, and CG-CAHPS supplemental items. All results are reported as frequencies and proportions of the surveys, with questions mapped to patient experience domains. CG-CAHPS 2.0 and 3.0 surveys contain a 0 to 10 overall rating and 4 composite measures: Access to care, Provider communication, Care coordination, and Helpfulness/Courtesy of office staff. The PCMH item set is 14 items related to the PCMH standards: Access to care, Provider communication, Care coordination, Shared decision-making, and Self-management support.

RESULTS

Practice characteristics

Practices that fielded a CAHPS survey (ie, either the CG-CAHPS survey or the CAHPS PCMH survey) and those that did not field a CAHPS survey were similar based on the stratification criteria. Overall, one-third of practices (31%) had 1 to 2 physicians on staff, with another third (28%) that had 3 to 5 physicians on staff. Half (50%) were affiliated with a hospital, and most (82%) were part of a medical group or network. A third (30%) were physician owned; another third of the practices were federally qualified health centers (35%),

and 20% were hospital owned. Most (84%) practices staffed only primary care physicians, and most (79%) treated both adults and children (Table 1). Practices that used a CAHPS survey were slightly more likely to be affiliated with or owned by a hospital, which might be explained by the hospital's use of Press Ganey as its vendor for the H-CAHPS survey.

Types of surveys

We examined the type of patient experience surveys administered across the 105 practices pursuing PCMH (Table 1). Thirty-three were currently administering the recommended CAHPS PCMH survey and an additional 18 were currently administering the CG-CAHPS survey (without the CAHPS PCMH items). Ten of these 18 had never used the CAHPS PCMH survey, and 8 had previously used it. Half ($N = 53/105$) were administering a patient experience survey that was neither the CG-CAHPS survey nor the CAHPS PCMH survey. Of these 53 practices, 30 administered a "homegrown" survey that practices themselves constructed and was only used at their health system or site. The remaining 23 practices used another non-CAHPS standardized survey (eg, Crossroads, Medstatic, Press Ganey proprietary survey). One practice was not administering a patient experience survey, as it was finalizing a contract to use the CAHPS PCMH survey for its next survey period. For the 53 practices using a non-CAHPS survey, we obtained 36 non-CAHPS surveys (68%) to examine.

Practice leader characteristics

Three-fourths of the practice leaders in the 53 practices administering a non-CAHPS survey (74%) and in the 36 practices for which we examined non-CAHPS surveys (78%) had other job functions besides PCMH implementation. Also, most practice leaders were working at the practice throughout the entire PCMH implementation period (51% for all 53 non-CAHPS survey practices and 58% for the practices for which we examined their non-CAHPS surveys). More than half of practice leaders were involved with the first PCMH application (51% and 56%, respectively), whereas most were involved in subsequent applications (52% and 45%, respectively). Practice leaders were heavily involved in PCMH implementation as part of the team of providers and staff who decided on and implemented the necessary changes to satisfy PCMH standards (64% and 69%, respectively). Half were also coordinators for PCMH efforts at their practice (49% and 50%, respectively), whereas most also reported being part of the team that reviewed data (including patient experience survey data) to determine PCMH changes (64% and 69%, respectively).

Content of non-CAHPS surveys

We analyzed the content of 36 non-CAHPS surveys and identified 12 main patient experience domains: Access to care (94%), Provider communication (94%), Office staff helpfulness/courteousness (92%), Care coordination (78%), Office environment and hours

Table 1. Practice Characteristics

	Used CAHPS Survey (N = 52), n (%)	Used Non-CAHPS Survey (N = 53), n (%)	Overall (N = 105), n (%)
PCMH history			
Level 1 or 2 (ie, not PCMH recognized)	13 (25)	15 (28)	28 (27)
Level 3, PCMH recognized: <3 y	16 (31)	11 (21)	27 (26)
Level 3, PCMH recognized: 3-5 y	10 (19)	11 (21)	21 (20)
Level 3, PCMH recognized: 5+ y	13 (25)	16 (30)	29 (28)
Providers at primary care practice			
Primary care only	43 (83)	40 (75)	83 (79)
Primary care and specialists	9 (17)	13 (25)	22 (21)
Practice size (ie, number of physicians)			
Very small/1-2 physicians	17 (33)	16 (30)	33 (31)
Small/3-5 physicians	15 (29)	14 (26)	29 (28)
Medium small/6-9 physicians	10 (19)	12 (23)	22 (21)
Medium/10-24 physicians	10 (19)	8 (15)	18 (17)
Large/>24 physicians	0 (0)	3 (6)	3 (3)
Patient population			
Adult only	9 (17)	13 (25)	22 (21)
Adult and children	43 (83)	40 (75)	83 (79)
Hospital affiliation			
Hospital affiliated	30 (58)	22 (42)	52 (50)
Not hospital affiliated	22 (42)	31 (58)	53 (50)
Group or network status			
Part of group or network	44 (85)	42 (79)	86 (82)
Not part of group or network	8 (15)	11 (21)	19 (18)
Ownership			
Privately owned	15 (29)	16 (30)	31 (30)
Hospital-owned	14 (27)	7 (13)	21 (20)
Federal qualified health center	17 (33)	19 (36)	36 (34)
Other ownership structure (incl. health system-affiliated, medical/academic health center, or HMO)	6 (12)	11 (21)	17 (16)
Patient experience survey at time of interview ^a			
CAHPS	52 (100)	0 (0)	52 (50)
CG-CAHPS only	18 (35)	0 (0)	18 (17)
CAHPS + PCMH items	33 (63)	0 (0)	33 (31)
No survey (previously CAHPS + PCMH items)	1 (2)	0 (0)	1 (1)
Non-CAHPS	0 (0)	53 (100)	53 (50)
Homegrown	0 (0)	30 (57)	30 (29)
Other survey	0 (0)	23 (43)	23 (22)

Abbreviations: CAHPS, Consumer Assessment of Healthcare Providers and Systems; CG-CAHPS, CAHPS clinician and group patient experience survey; HMO, health maintenance organization; PCMH, patient-centered medical home.

^aPractices were interviewed between 2017 and 2018.

(61%), Shared decision-making (56%), Continuity of care (44%), Care and treatment (44%), Privacy and confidentiality (39%), Billing (33%), Managing health (31%), and Mental and emotional health (11%). We mapped the domains and specific measures to CG-CAHPS 2.0 and 3.0 surveys, CAHPS PCMH item set, and CAHPS supplemental items (Table 2). Almost all non-CAHPS surveys also included Global measures (89%).

The 2 most common measures within the “Access to care” domain were as follows: “Wait time at the clinic” (81% of all non-CAHPS surveys) and “Medical questions answered after hours” (69%). Neither of these topics are in the CG-CAHPS 3.0 survey; however, “Patients getting the information they needed after clinic hours” (36%) is a CG-CAHPS 2.0 item and a PCMH 3.0 item. The CG-CAHPS 2.0 survey also included an item about “Being seen within 15 minutes” (which we categorized under “Wait time at clinic”). The non-CAHPS surveys also addressed 2 measures not on CAHPS surveys: “Ease of scheduling appointments” (33%) and “Patients being informed about delays” (33%). The non-CAHPS items about “Ease of scheduling appointments” and “Satisfaction with wait time” addressed whether scheduling your primary care appointment was easy (these items used either the 5-option responses of “excellent to poor” or “very good to very poor”).

Provider communication was included on 94% of all the non-CAHPS surveys. The most common survey items within Provider communication were as follows: “Provider listens” (83%), “Provider was easy to understand” (81%), and “Provider spends enough time” (75%), which is a CG-CAHPS 2.0 measure. In addition, 11% of the surveys used the same CG-CAHPS 2.0 item asking whether the “Provider gave easy-to-understand information.” Some surveys shortened this item by removing the time reference or asked whether the provider used “words” that the patient could understand. Another 11% used an item with no stem, for example, “Provider listened to patient,” or “Asked specifically about the experience during the visit.” Both “Provider spends enough time” (75%) and “Provider was respectful” (33%) are measures on CG-CAHPS 2.0 and 3.0 surveys. Finally, the non-CAHPS surveys often included a measure on whether the “Provider was helpful and courteous” (69%), which is not a CAHPS item.

The Office staff helpfulness/courteousness domain included CAHPS 2.0 measures and appeared on 92% of the non-CAHPS surveys. The domain included 2 measures: “Office staff are courteous, respectful, and friendly” (86%) and “Office staff are helpful” (69%). The CG-CAHPS 2.0 measure (“Office staff are helpful”) assesses frequency (ie, how often) using a “never”/“sometimes”/“usually”/“always” response scale, whereas the non-CAHPS items asked the patient to rate how courteous or respectful staff were using a 5-point poor-to-excellent response scale.

Care coordination was measured using items about the provider coordinating the patient’s care, medica-

tion topics, and referrals. Care coordination appeared on 78% of the non-CAHPS surveys. A common non-CAHPS measure asked whether the “Provider and staff worked together to provide care” (36%). Measures similar to CAHPS items asked about whether “Someone at the clinic followed up with the patient about test results” (44%) and the provider’s “Knowledge of patient’s medical history” (33%); the wording of these 2 items were identical to CG-CAHPS items and used the CAHPS response options of “yes, definitely/yes, somewhat/no” On the majority of the surveys, the question about someone at the clinic following up on test results was the same as the CAHPS item, except in a handful of cases where the question was shortened to “Practice informs of blood tests or x-rays” or “Notifications of results.” Non-CAHPS items about “Discussing medications” were included in 36% of the surveys, as was whether the “Provider knows about care from the specialist.”

Measures of Office environment and hours were included, with the most common measure asking patients whether the “Office was clean and neat” (39%). Items related to Shared decision-making were included in just over half the surveys (56%). The most common item came from the CG-CAHPS 2.0 item: “Discussing health goals and making decisions with your provider about your care,” which was included in 50% of surveys. Measures about the “Main reason for the visit” under the domain of Continuity of care were commonly included (39%). Privacy and confidentiality items were included a third of the time (33%), asking patients about the “Clinic maintaining patient privacy and confidentiality”; however, none of these were CAHPS measures.

Several patient experience domains were included in less than a third of the non-CAHPS surveys: Managing health, Mental and emotional health, and Billing. Technology (including health information technology [HIT]) items were not included in the non-CAHPS surveys, but a CAHPS HIT supplemental item set exists²² (available at: <https://www.ahrq.gov/cahps/surveys-guidance/item-sets/HIT/index.html>).

Finally, Global measures were common on the non-CAHPS surveys. The “Overall rating of the provider” (45%) is a CG-CAHPS 2.0 measure. The common Global measures not on CAHPS surveys were as follows: “Overall assessment of the clinic” (36%), “Likelihood of recommending the clinic” (56%), and “Likelihood of recommending the provider” (44%). The CG-CAHPS 2.0 visit survey includes an item asking, “Would you recommend this provider’s office to your family and friends?” and the CG-CAHPS 3.0 survey also includes this item.

CONCLUSIONS

From a stratified random sample of practices all pursuing PCMH recognition and transformation, half administered the CAHPS survey (ie, either the CG-CAHPS survey or the CAHPS PCMH survey) whereas the other half did not administer a CAHPS survey. To understand the content of these non-CAHPS patient experience

Table 2. Patient Experience Survey Domains Administered During PCMH Transformation, Mapped to the CAHPS Survey or Item Sets

Domain (% of Surveys) (N = 36)	Measure	Non-CAHPS Survey, n (%)	In CAHPS Survey
Access to care (94%)	Wait time at the clinic	29 (81)	
	Medical questions answered after hours	25 (69)	X
	Ease of scheduling appointments	12 (33)	
	Patients being informed about delays	12 (33)	X
	Patients getting information they needed after clinical hours	12 (33)	X
	Satisfaction with wait time	8 (22)	
	Appointment/wait time—nonurgent care	7 (19)	X
	Getting same-day appointments	4 (11)	
	Mode of scheduling	4 (11)	
	Wait time to appointment	4 (11)	
	Reminders-appointments/tests	2 (6)	X
	Appointment/wait time—urgent care	0	X
	Seen within 15 min	0	X
	Informed about length of wait	0	X
	After-hours care provided	0	X
Provider communication (94%)	Provider listens	30 (83)	X
	Provider was easy to understand	29 (81)	X
	Provider spends enough time	27 (75)	X
	Provider was helpful and courteous	25 (69)	
	Provider respectful	12 (33)	X
	Provider/nurses sensitive to patient needs	9 (25)	
	Nurse communication	8 (22)	
	Provider gave easy-to-understand information	4 (11)	X
	Provider caring /inspire trust	0	X
Office staff helpfulness/ courteousness (92%)	Patient encouraged to ask questions	0	X
	Office staff are courteous, respectful, and friendly	31 (86)	X
	Office staff are helpful	25 (69)	
Care coordination (78%)	Someone at the clinic followed up with the patient about test results	16 (44)	X
	Provider and staff worked together to provide care	13 (36)	
	Discussing medications	13 (36)	X
	Provider knows about patient care from the specialist	13 (36)	X
	Knowledge of the patient's medical history	12 (33)	X
	Knowledge of care from other providers	11 (31)	X
	Provider referrals to a specialist	8 (22)	
	Give information about medications	7 (19)	
	Ease of obtaining medication	4 (11)	
	Explained/ordered blood test, x-rays, other tests	3 (8)	X
	Medication history	2 (6)	X

(continues)

Table 2. Patient Experience Survey Domains Administered During PCMH Transformation, Mapped to the CAHPS Survey or Item Set^a (Continued)

Domain (% of Surveys) (N = 36)	Measure	Non-CAHPS Survey, n (%)	In CAHPS Survey
Office environment and hours (61%)	Patient care from a specialist	0	X
	See an acupuncturist or herbalist	0	X
	Office was near and clean	14 (39)	
	Comfortable environment	9 (25)	
	Convenient office hours	8 (22)	
	Convenient location	4 (11)	
	Safe environment	3 (8)	
	Services for mobility impaired	2 (6)	X
	Office interpreter services	1 (3)	X
Shared decision-making (56%)	Discrimination	0	X
	Discussing health goals and making decisions with your provider about your care	18 (50)	X
	Challenges with health goals	4 (11)	X
	Discuss surgery or procedures	0	X
Continuity of care (44%)	Main reason for visit	14 (39)	X
	Length of time with the provider	12 (33)	X
	Identifying the provider	9 (25)	X
	Medical home	2 (6)	
Care and treatment (44%)	Gives good advice/treatment	8 (22)	
	Information on follow-up care	5 (14)	
	Confidence in care provider	1 (3)	
	Experience/comfort with examination	0	X
Privacy and confidentiality (39%)	Clinic maintained patient privacy and confidentiality	12 (33)	
Billing (33%)	Explanation of bill	10 (28)	
Managing health (31%)	Health promotion	9 (25)	X
	Care and prescriptions for chronic conditions	0	X
Mental and emotional health (11%)	Asked the patient about mental and/or emotional health and stress	6 (17)	X
Technology (0%)	Patient use of technology	0	X
	Provider use of technology	0	X
	Information via Web site and easy to understand	0	X
	Patient use of technology	0	X
Global measures (89%)	Likelihood of recommending the clinic	20 (56)	
	Likelihood of recommending the provider	16 (44)	X
	Overall rating of the provider	15 (42)	X
	Overall assessment of the clinic	13 (36)	
	Return to the clinic	5 (14)	

Abbreviation: CAHPS, Consumer Assessment of Healthcare Providers and Systems.

^aA "0" indicates there were no surveys that we reviewed that included the item(s). An "X" denotes that the item(s) are present in a CAHPS survey.

surveys and what aspects of patient experience practices were interested in collecting, trending, and measuring during their PCMH transformation, we examined the specific domains and measures in these non-CAHPS surveys. We obtained 68% (36/53) of these non-CAHPS surveys from practices pursuing PCMH.

The most common patient experience survey domains administered by practices undergoing PCMH transformation included in the non-CAHPS surveys were as follows: Access to care (94%), Provider communication (94%), Office staff helpfulness/courteousness (92%), and Care coordination (78%). In these non-CAHPS surveys, we found that many practices were still administering specific CG-CAHPS items. Most commonly, practices undergoing PCMH transformation that were administering non-CAHPS surveys included exact CAHPS measures on Provider communication (ie, provider spends enough time, provider listens, amount of time with the provider), medical questions answered after hours, office staff courteousness, follow-up on test results, and the provider knows patient medical history. This is not surprising, given that all CAHPS measures are rigorously developed,²³ commonly used as benchmarks of care quality and that the 14-item CAHPS PCMH item set was specifically developed to reflect the standards for achieving a quality PCMH practice. While many practices did not use the recommended core CG-CAHPS survey, nor include the CAHPS PCMH items, they did choose to include a few CG-CAHPS measures or unconventionally adapt the CG-CAHPS measures, as they measured specific items of interest and importance to meet their clinic needs or PCMH goals.

Practice leaders have an intimate knowledge of their practice operations. They recognize the connection between understanding what the patient needs and experiences are and its association with providing quality care.^{24,25} Practices also have diverse and varied approaches to pursuing the initial PCMH recognition and the myriad of choices along the path of PCMH transformation, and though there are PCMH standards and guidelines for providing PCMH quality of care, the day-to-day changes to achieve PCMH recognition are appropriately tailored to site-specific needs and goals. As a result, practices pursuing PCMH transformation need to consider what information they can use from their patient experience survey to help meet PCMH transformation goals. More and more practices are examining how to use patient experience data to gauge their progress and identify gaps or areas of improvement,^{10,26-29} which is also recognized by the requirement of continuous QI being included in the NCOA PCMH standards.

On the basis of the non-CAHPS items included by these PCMH-transforming practices, new CG-CAHPS items could be developed so that practices could collect standardized measures to assess aspects of PCMH transformation on patient experience related to appointment reminders, wait time, cleanliness of the office, and assessing the main reason for visit. Prac-

tices also wanted additional information on Provider communication related to whether providers are helpful and courteous or whether providers and nurses are sensitive to patient needs. These newly developed measures could be supplemental items or be included in the PCMH item set.

In sum, additional CG-CAHPS items in key PCMH topic areas, Access to care (ie, for after-hours and weekend visits, ease of scheduling, being informed about delays), Shared decision-making, and Provider communication (ie, the provider is courteous, communication by other clinical staff members and the patient), could assist practice leaders in their efforts to capture the breadth and depth of PCMH transformation and its influence on providing more patient-centered care. Research is needed to determine whether the CAHPS survey is the best source of this information.

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