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# **Comparison of Patient and Physician Opinion of Patient Centered Medical Home Fundamentals**

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### **Abstract**

**Objective**—Although conceptually there is agreement on how the Patient Centered Medical Home (PCMH) should be organized, there is no such agreement on what components constitute a PCMH. Considering that patients perspectives should be included in the design of a PCMH we evaluated patient opinion on PCMH based on National Committee for Quality Assurance (NCQA) elements.

**Methods**—An anonymous, voluntary survey was administered to patients at three US Academic Medical Centers. Questions sought opinion on the NCQA key components of essential elements of the PCMH. Analysis of the survey responses was conducted using SAS version 9.1

**Results**—780 surveys were returned. There were no differences in response to the survey according to age, by sex, race, or site. Differences did exist in patient insurance status by site (chi-sq<.0001) and by race (chi-sq<.0012). Patients felt strongly that the ability to coordinate care, the ability to help patients manage their own disease, and the ability to rack lab results were important. Patients listed care coordination, patient self-management, and improved access to care as one of their top 5 attributes of a PCMH.

**Conclusions**—Patients were consistent in their opinions that care coordination, and patient self-management we important elements of a PCMH. They also believe that improved access to care is another core component.

#### INTRODUCTION

The Patient Centered Medical Home (PCMH) is a new model of care designed to place the patient at the center of the health care delivery paradigm. First described by the American Academy of Pediatrics in 1967, it is now the transformative vision of care supported by all major primary care organizations including: the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association (1,2).

The major principles of the PCMH model include: 1. Each patient should heave a personal physician, 2. Physicians direct and lead the medical practice, 3. Whole person integrated

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care, Enhanced access to care (including same day), and 4. Payment reform to support the framework needed to provide PCMH care. Clear (preliminary) evidence exists which has shown that the PCMH model of care improves outcomes, reduces cost, and improves patient and physician satisfaction (3-7).

Despite the improved outcomes and cost savings attributable to PCMH activity, very little is known about how such a care system is perceived by patients. We sought to determine patient's opinion on key elements of a PCMH as defined by the National Committee for Quality Improvement. Such information can help to inform teaching and implementation of PCMH activity, as the process of PCMH care evolves.

#### **METHODS**

An anonymous, voluntary survey was administered to patients who receive their care at three academic medical centers across the US from June to October 2010. The study sample consisted of a convenience sample of patients who presented to offices of the participating academic medical center departments of family medicine. Refusals were not recorded but were uncommon. IRB approval was obtained from all participating institutions.

The patient survey consisted of a small introduction which explained that the PCMH was a new model of patient care and that there are many components involved in this model. The introduction further explained that we were asking for the patients help in determining which of the elements they felt were the most important. This was followed by demographic questions regarding race, insurance status, marital status, educational level, and income level..

Questions sought patient opinion on the National Committee for Quality Assurance (NCQA) key components and essential elements of the Physician Practice Connections® - Patient-Centered Medical Home<sup>TM</sup> (8). The survey focused on the key components due to the fact that major stakeholders such as the Centers for Medicare and Medicaid Services (CMS) look to the NCQA for recognition of health initiatives and quality indicators.

The survey consisted of two sets of questions. The first set included questions regarding twenty-one NCQA components of PCMH care and were formatted using a standard Likert-type scale (Disagree Strongly, Disagree Somewhat, Neutral, Agree Somewhat, Agree Strongly). The second set of questions listed the same twenty-one elements but then asked patients to mark the top five they considered to be the most important. Patients were not asked to rank their top 5 choices but simply to choose the five they felt were of the most important.

Descriptive analysis of the survey responses was conducted using SAS version 9.1 (SAS Institute, Cary, NC, USA). Responses were also analyzed to determine whether there were differences according to patient gender, race, insurance status, income or the presence of chronic disease.

#### **RESULTS**

A total of 780 surveys were returned. The median patient age was 47.4 years, 65.7% were female, 69.9% were Caucasian, 22.1% were African American, 21.28% were high school graduates, 22.1% were college graduates, 16.4% were covered by Medicaid, and 55.3% had private insurance (Table 1).

There were no differences in responses to the patient survey according to age, by sex, race, or site. There were no significant differences in proportion of male/female patients by race

or site. Differences did exist in patient insurance status by site (chi-sq p<.0001) and by race (chi-sq p=.0012).

Patient opinions about the importance of specific clinical practices as it pertains to a PCMH demonstrated that 75% or more strongly agreed that the most important attributes were (Table 2): 1) The ability to coordinate a patient's care between other doctors and hospitals is important; 2) The ability to provide patients information to manage their own disease is important; 3) The ability to transmit prescriptions with safety checks is important; and 4) The ability to follow up on labs which were ordered is important.

When patients were asked what they thought were the 5 most important attributes of a PCMH based on NCQA elements, the results were:1) Ability to coordinate a patient's care between other doctors and hospitals is important (54%); 2) Ability to develop a personalized treatment plan for patients is important (51%); 3) Ability to search a patient's medical history is important (51%); 4) Improving access to care is important (44%); and 5) Ability to provide patients information to manage their own disease is important (34%) (Table 3).

#### DISCUSSION

The fundamental attribute of a PCMH is patient-centered care (9). That is providing care as the patient wants it, not as the "system" mandates. According to the Common Wealth Fund, patient-centered care requires: 1. Education and shared knowledge; 2) Involvement of family and friends: 3) Collaboration and team management; 4) Sensitivity to nonmedical and spiritual dimensions of care; 5) Respect for patient needs and preferences; and 6) free flow and accessibility of information (9). To maximize these attributes, as well as those attributable to NCQA recognition, it is important to understand what patients believe about the PCMH model of care. Although conceptually there is agreement on how a PCMH should be organized, there is no such agreement on what components constitutes a PCMH (10,11). As such, the evolution of the PCMH model of care by necessity must take into account the patient perspective on how care should be delivered.

Our research found that patients were consistent in that they felt that care coordination and help with patient self-management are important elements of a PCMH practice as evidenced by their choice of these options regardless of how they were asked. In addition, they felt that access to care, ability to follow up on labs (which is related to care coordination), and development of a personalized treatment plan (which is related to patient self-management) to be integral to PCMH care.

The key components of a PCMH as selected by our sample are in line with reports from offices and systems practicing the PCMH model of care (12,13). The Patient-Centered Medical Home National Demonstration Project found that improved care coordination and increased access to care were significant positive changes seen in practices following implementation of the PCMH model of care (12). The Group Health Cooperative reported improved patient metrics in three areas: 1) coordination; 2) access; and 3) goal setting (13).

Care coordination is a key element that patient's felt is important in a PCMH. It is likely that many of them had experienced some difficulty with care coordination given the suboptimal amount of care coordination in the US. Various factors affect the ability to safely coordinate care including poor communication, wrongly completed forms, lack of physician relationship, and use of informal support mechanisms (14-18). Kripalani et al reported that direct communication between hospital physician and primary care physician occurred only 3%-20% of the time (14). When discharge summaries, and other important information that needed to be communicated from HP to PCP's was factored in, they found that 25% of the time, the quality of the patients follow up visit with their PCP was affected.

The importance patients place on access to care is of significant importance. Primary care offices are overwhelmed by demand and it is not uncommon for patients to wait weeks for a routine appointment and have to overcome significant barriers when acute care is needed (19,20). Due to such barriers, many patients seek care elsewhere including emergency departments, and other physicians (21-23).

Use of the Emergency Department for non-urgent routine health services is a universal and expensive problem (24,25). A current brief from the Center for Studying Health System Change found that only 47.3% of patient visits to the ED were classified as either urgent or emergent (24).the cost associated with reduced access is not insignificant. The median cost for an emergency department visit in the US is \$299, compared to the same service being provided in a hospital outpatient clinic (\$131) or a private physician's office (\$63) (26). Furthermore, although the average total cost (including ancillary services) for an emergency room visit and a hospital outpatient clinic visit were nearly identical (\$560 vs. \$557), a physician office visit for the same problem was significantly less (\$121) (26).

There are limitations to our study. It was conducted at three academic medical centers and therefore is not generalizable to other types of practice contexts. Second, the sample is one of convenience and was not a random sample of the U.S adult population seeking care. Nevertheless, the responders were a diverse group of patients and physicians drawn from three distinct geographical areas and thus are able to provide insight and direction on PCMH elements as primary care moves forward in the evolution of the PCMH.

The only way to deliver patient centered care is to place that which matters to the patient in the center (27). Improved care coordination and increased access are only parts of a bigger need. As the PCMH process evolves it is important to incorporate patient opinion and help in educating residents and students on PCMH care as well as designing how such care should be delivered. Our results are consistent with others and demonstrate that care coordination and access are fundamental elements that patients believe must be included in a PCMH.

#### REFERENCES

- 1. Sia C, Tonniges TF, Osterhus E, Taba S. History of the medical home concept. Pediatrics. 2004; 113:1473–8. [PubMed: 15121914]
- [Accessed 8-30-10] Joint Principles of the Patient-Centered Medical Home. Available at http:// www.medicalhomeinfo.org/joint%20Statement.pdf
- 3. Beal, Ac; Doty, MM.; Hernandez, Se, et al. Closing the divide: How medical homes promote wquity in hralth care: Results from the Commonwealth Fund 2006. Health Care Quality Survey. Jun. 2007
- 4. Bodenhemier T. Coordinating care: A perilous Journey through the health system. NEJM. 2008; 358:1064–1072. [PubMed: 18322289]
- 5. Adams, J.; Grundy, P.; Kohn, MS., et al. Patient-centered medical home: What, why, and how. IBM global Services: Institute for business value; 2009.
- Reid RJ, Fishman PA, Onchee Y, et al. Patient-Centered Medical Home demonstration: A
  prospective, quasi-experimental, before and after evaluation. The American Journal of Managed
  Care. 2009; 15:e71–e87. [PubMed: 19728768]
- 7. Grumbach, K.; Bodenheimer, T.; Grundy, P. Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence From Prospective Evaluation Studies in the United States. UCSF Center for Excellence in Primary Care; Available at http://www.pcpcc.net/content/pcmh-outcome-evidence-qualityUpdated 11-16-2010 [Accessed 11-1-10]
- 8. National Committee for Quality Assurance. [accessed 3-2-10] Physician Practice Connections® Patient-Centered Medical Home<sup>TM</sup>. Available at http://www.ncqa.org/tabid/631/default.aspx

 Hudon C, Fortin M, Haggerty JL. Measuring a patients perspective on patient-centered care: a systematic review of tools for family medicine. Ann Fam Med. 2011; 9:155–164. [PubMed: 21403143]

- 10. Berenson RA, Hammons T, Gans DN, et al. A house is not a home: keeping patients at the center of practice redesign. Health Aff. 2008; 27:1219–1230.
- 11. Friedberg MW, Lai DJ, Hyssey PS, et al. A guide to the medical home as a practice-level intervention. Am J Manag Care. 2009; 15:S291–S299. [PubMed: 20088633]
- Jaen CR, Ferrer RL, Miller WT, et al. Patient outcomes at 26 months in the patient-centered medical home national demonstration project. Ann Fam Med. 2010; 8:s57–s67. [PubMed: 20530395]
- 13. Reid, RJ.; Coleman, K.; Johnson, AJ., et al. Health Aff. 2010. The group health medical home at year two: cost savings, higher patient satisfaction, and less burnout for providers. DOI: 10.13377/hlthaff.2010.0158
- 14. Kripalani S, LeFevre F, Phillips C, et al. Deficits in communication and information transfer between hospital-based and primary care physicians: Implications for patient safety and continuity of care. Journal of American Medical Association. 2007; 297:831–841.
- 15. Hanasagi H, Olsson M, Hussain A, et al. Is information sharing between the emergency department and primary care useful to the care of frequent emergency department users? Eur J Emerg Med. 2008; 15:34–39. [PubMed: 18180664]
- Afilal M, Lang E, Leger R. Impact of a standardized communication system on continuity of care between family physicians and the emergency department. CJEM. 2007; 9:79–86. [PubMed: 17391577]
- 17. WHO collaborating Center for Patient Safety Solutions. Patient Safety Solutions. 2007. Communicating during patient hand-overs; p. 1solution 3
- 18. Johnson JK, Arora VM. Improving clinical handovers: creating local solutions for a global problem. Qual Saf Health Care. 2009; 18:244–245. [PubMed: 19651924]
- 19. Steinbauer JR, Korell K, Erdin J, Spann SJ. Implementing open-access scheduling in an academic practice. Family Practice Management. 2006; 13:59–64. [PubMed: 16568598]
- Mehrotra A, Keehl-Markowitz L, Ayanian JZ. Implementing Open-Access Scheduling of Visits in Primary Care Practices: A Cautionary Tale. Annals of Internal Medicine. 2008; 148:915–922. [PubMed: 18559842]
- 21. Murray M, Berwick DM. Advanced access: reducing waiting and delays in primary care. Journal of the American Medical Association. 2003; 289:1035–40. [PubMed: 12597760]
- 22. Murray M, Tantau C. Same-day appointments: exploding the access paradigm. Family Practice Management. 2000; 7:45–50. [PubMed: 11183460]
- 23. Christakis DA, Mell L, Koepsell TD, Zimmerman FJ, Connell FA. Association of lower continuity of care with greater risk of emergency department use and hospitalization in children. Pediatrics. 2001; 107:524–9. [PubMed: 11230593]
- Cunningham, PJ.; May, JH. Insured Americans Drive Surge in Emergency Department Visits.
   Center for Studying Health System Change; Oct. 2003 Issue Brief No. 70
- 25. Keeping chronically ill patients out of the ED. Journal Editorial. Hospital Case Management. 2008; 16:68–70. [PubMed: 18548789]
- Machlin, SR. Medical Expenditure Panel Survey. Jan. 2006 Expenses for a Hospital Emergency Room Visit, 2003. Statistical Brief 111
- Schall M, Sevin C, Wasson JH. Making high-quality, patient-centered care a reality. J Ambulatory Care Management. 2009; 32:3–7.

## Table 1

# Demographics

Patients	
Median Age	47.4
Male	34.3 %
Female	65.7 %
Race/Ethnicity	
Caucasian	69.98 %
Asian	2.64 %
African American	22.11 %
Hispanic	2.64 %
Other	2.64 %
<b>Education Level</b>	
Some High School	7.7 %
High School/GED	21.28 %
Some College	28.99 %
College Graduate	22.07 %
Some Graduate School	5.32 %
Professional Degree	14.63 %
Insurance Status	
Medicaid	16.37 %
Medicare	16.51 %
Private Insurance	55.3 %
Self Pay	3.99 %
Other	7.84 %

Table 2

NCQA PCMH Components receiving a response of strongly agree (response rate greater than 75%).

Patient Response	
Ability to coordinate a patient's care between other doctors and hospitals	
Ability to provide patients information to manage their own disease	
Ability to transmit prescriptions with safety checks	
Ability to follow up on labs	
Ability to follow up on labs	

## Table 3

# Five Most Important Attributes of a PCMH

Patient Response	Per Cent
Ability to coordinate a patient's care between other doctors and hospitals	54
Ability to develop a personalized treatment plan for patients	51
Ability to search a patient's medical history	51
Improving access to care is important	44
Provide patients information to manage their own disease	34