Introduction

The Patient-Centered Medical Home (PC-MH) is an approach to providing comprehensive primary care for children, youth and adults. The PC-MH is a health care setting that facilitates partnerships between individual patients, and their personal physicians, and when appropriate, the patient’s family.

The AAP, AAFP, ACP, and AOA, representing approximately 333,000 physicians, have developed the following joint principles to describe the characteristics of the PC-MH.

Principles

**Personal physician** - each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.

**Physician directed medical practice** – the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.

**Whole person orientation** – the personal physician is responsible for providing for all the patient’s health care needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life; acute care; chronic care; preventive services; and end of life care.

**Care is coordinated and/or integrated** across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (e.g., family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.

**Quality and safety** are hallmarks of the medical home:

- Practices advocate for their patients to support the attainment of optimal, patient-centered outcomes that are defined by a care
planning process driven by a compassionate, robust partnership between physicians, patients, and the patient’s family.

- Evidence-based medicine and clinical decision-support tools guide decision making.
- Physicians in the practice accept accountability for continuous quality improvement through voluntary engagement in performance measurement and improvement.
- Patients actively participate in decision-making and feedback is sought to ensure patients’ expectations are being met.
- Information technology is utilized appropriately to support optimal patient care, performance measurement, patient education, and enhanced communication.
- Practices go through a voluntary recognition process by an appropriate non-governmental entity to demonstrate that they have the capabilities to provide patient centered services consistent with the medical home model.
- Patients and families participate in quality improvement activities at the practice level.

**Enhanced access** to care is available through systems such as open scheduling, expanded hours and new options for communication between patients, their personal physician, and practice staff.

**Payment** appropriately recognizes the added value provided to patients who have a patient-centered medical home. The payment structure should be based on the following framework:

- It should reflect the value of physician and non-physician staff patient-centered care management work that falls outside of the face-to-face visit.
- It should pay for services associated with coordination of care both within a given practice and between consultants, ancillary providers, and community resources.
- It should support adoption and use of health information technology for quality improvement.
- It should support provision of enhanced communication access such as secure e-mail and telephone consultation.
- It should recognize the value of physician work associated with remote monitoring of clinical data using technology.
- It should allow for separate fee-for-service payments for face-to-face visits. (Payments for care management services that fall outside of the face-to-face visit, as described above, should not result in a reduction in the payments for face-to-face visits).
- It should recognize case mix differences in the patient population being treated within the practice.
- It should allow physicians to share in savings from reduced hospitalizations associated with physician-guided care management in the office setting.
- It should allow for additional payments for achieving measurable and continuous quality improvements.

**Background of the Medical Home Concept**

The American Academy of Pediatrics (AAP) introduced the medical home concept in 1967, initially referring to a central location for archiving a child’s medical record. In its 2002 policy statement, the AAP expanded the medical home concept to include these operational characteristics: accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective care.

The American Academy of Family Physicians (AAFP) and the American College of Physicians (ACP) have since developed their own models for improving patient care called the “medical home” (AAFP, 2004) or “advanced medical home” (ACP, 2006).
American Academy of Family Physicians (AAFP)
American Academy of Pediatrics (AAP)
American College of Physicians (ACP)
American Osteopathic Association (AOA)

Guidelines for Patient-Centered Medical Home (PCMH) Recognition and Accreditation Programs

February 2011

In 2007, the Joint Principles of the Patient-Centered Medical Home were released by the four primary care physician societies—the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), the American College of Physicians (ACP), and the American Osteopathic Association (AOA)—and have since been endorsed by 19 additional physician organizations, including the American Medical Association, as well as the Patient-Centered Primary Care Collaborative (PCPCC), a multi-stakeholder coalition with a mission to develop and advance the patient-centered medical home. Following the release of these Joint Principles, the PCMH concept has become a fast-growing model of primary care redesign across the country, with many demonstration and pilot projects underway or in development.

As a result of the proliferation of test* projects and the overall growing interest in the PCMH concept, there are now multiple entities developing or offering medical home recognition or accreditation programs. The primary care physician societies have long supported the need for robust recognition and/or accreditation programs to help assess whether a given practice is delivering care based on the PCMH model. Therefore, to assist with the development and use of these programs, the AAFP, AAP, ACP, and AOA offer these “Guidelines for Patient-Centered Medical Home Recognition and Accreditation Programs.”

All Patient-Centered Medical Home Recognition or Accreditation Programs should:

1. **Incorporate the Joint Principles of the Patient-Centered Medical Home**

   The Joint Principles of the Patient-Centered Medical Home are intended to describe the characteristics of a PCMH, including: a personal physician in a physician-directed, team-based medical practice; whole person orientation; coordinated and/or integrated care; quality and safety; enhanced access; and payment.

2. **Address the Complete Scope of Primary Care Services**

   The Institute of Medicine (IOM) has developed a commonly accepted definition of primary care which is as follows: “Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community” (IOM, 1996). The term “integrated” in the IOM definition encompasses “the provision of comprehensive, coordinated, and continuous services that provide a seamless process of care.”

* The term “test” projects is intended to encompass both pilot and demonstration projects, which may have different meanings, as well as other PCMH research and quality improvement projects and initiatives that may chose to utilize a recognition or accreditation program.
The patient-centered medical home model facilitates ideal primary care and therefore recognition and accreditation programs should attempt to assess all of the primary care domains outlined by the IOM—comprehensiveness, coordination, continuity, accessibility, and patient engagement and experience. This will further ensure that every recognized or accredited entity provides care consistent with the Joint Principles, including, but not limited to, having a whole person orientation which means taking responsibility for coordinating each patient’s full array of health care services using a team-based approach—i.e., delivering care for all stages and ages of life, acute care, chronic care, behavioral and mental health care, preventive services, and end of life care—and coordinating and/or integrating care for services not provided by the PCMH across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (e.g., family, public and private community-based services).

3. **Ensure the Incorporation of Patient and Family-Centered Care Emphasizing Engagement of Patients, their Families, and their Caregivers**

   A commonly accepted definition of “patient-centered care” also is provided by the IOM: Patient-centered care is “healthcare that establishes a partnership among practitioners, patients, and their families (when appropriate) to ensure that decisions respect patients’ wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care” (IOM, 2001). Therefore, recognition and accreditation programs for the patient-centered medical home should attempt to incorporate elements that assess a practice’s or organization’s ability to implement patient- and family-centered care based on the needs and preferences of their patients, family, and caregivers; incorporate shared-decision making; encourage and support self-management and self-care techniques; facilitate complete and accurate information sharing and effective communication; encourage active collaboration of patients/families in the design and implementation of delivery of care; ensure cultural and linguistic competency among its clinicians and staff; and collect and act upon patient, family, and caregiver experience and satisfaction data. There should also be special considerations to align program standards, elements, characteristics, and/or measures with populations that have specific needs such as the pediatric and geriatric populations.

4. **Engage Multiple Stakeholders in the Development and Implementation of the Program**

   The development, implementation, and evaluation of a patient-centered medical home recognition or accreditation program should be a transparent process, open to input (e.g., through a public comment period) from all relevant stakeholders, such as clinicians, practice staff, patients and families, professional societies, private and public payers, employers/purchasers, health care-oriented community organizations including patient and family advocacy groups, and representatives from quality improvement programs.
5. **Align Standards, Elements, Characteristics, and/or Measures with Meaningful Use Requirements**

Recognition and accreditation programs related to the patient-centered medical home should actively work to align their standards, elements, characteristics, and/or measures with the meaningful use criteria outlined by the Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology (ONC). In the short term, these programs should clearly identify which of their standards, elements, characteristics, and/or measures are related to the meaningful use criteria. Then, over time, those items should evolve to align sufficiently with the meaningful use criteria such that CMS and ONC might allow recognized or accredited entities to receive “credit” based on achievement of PCMH status.

6. **Identify Essential Standards, Elements, and Characteristics**

Recognition and accreditation programs for the patient-centered medical home should clearly identify a set of standards, elements, and/or characteristics that are considered essential (i.e., core to being a medical home practice). These should include but not be limited to: (1) Advanced Access Principles (e.g., same day appointments, extended hours, group and e-visits, and patient portals); (2) Comprehensive Practice-based Services (e.g., acute and chronic care, prevention screening and ancillary therapeutic, support, or diagnostic service); (3) Effective Care Management (e.g., demonstrated capacity to execute population management); (4) Care Coordination (e.g., between providers and other practices, subspecialty care, hospitals, home health agencies, nursing homes, and/or community-based care resources); (5) Practice-based Team Care; and (6) Guarantees of Quality and Safety (e.g., incorporation of evidence-based best practices, clinical outcomes analysis, regulatory compliance, risk management, and medication management).

These items should be based on the best available evidence, which can be determined via literature review; ongoing evaluation of the individual standards, elements, and/or characteristics and the program as a whole; evaluation of implementation tools and resources; evaluations of projects, organizations, and practices that are utilizing the program; and expert stakeholder, patient, and family input. Flexibility for practices in satisfying these essential elements should be a feature of all recognition and accreditation programs. These standards should be applicable to different sizes of practices from a small solo practice to a large multispecialty group and also be implementable in different geographic settings from rural areas to large metropolitan cities.

7. **Address the Core Concept of Continuous Improvement that is Central to the PCMH Model**

Transforming to a patient-centered medical home is a process requiring a culture of continuous quality improvement that will be different for each practice. Therefore, patient-centered medical home recognition and accreditation programs should foster practice transformation and acknowledge progress towards the medical home ideal by providing increasingly complex goals for practices to meet. These progressive goals
could be reflected through different levels of recognition or accreditation, as well as through the use of practice-level outcomes measurement and time-limited recognition or accreditation that would require the need to periodically reapply.

Additionally, recognition and accreditation programs should include goals that are more advanced or aspirational in nature for practices to pursue. For example, calling for the practice to seek feedback from its patients and families on key aspects of its operations and to document practice changes in response to that information. These goals could be presented as potential future standards, elements, policy changes, or characteristics that some practices or organizations might want to achieve sooner. Inclusion of these objectives would provide an opportunity for recognized or accredited medical homes to consider steps beyond the essential standards, elements, characteristics, and existing levels of the recognition or accreditation process. This approach also would allow recognizing and accrediting bodies to learn about the challenges, relevance, and implications of these more advanced elements.

8. Allow for Innovative Ideas

Patient-centered medical home recognition and accreditation programs should encourage applicants to submit innovative approaches (e.g., best practices) for providing patient/family-centered care, particularly in a team-based environment. This approach can also provide a data set from which the certifying, recognizing, or accrediting body, and possibly others, can learn about innovative ideas (e.g., best practices).

9. Care Coordination within the Medical Neighborhood

According to the Joint Principles, a medical home is characterized by every patient/family having a personal physician who provides first contact care, understands the health care needs of the patient/family, facilitates planned co-management across the lifespan, and has the resources and capacity to meet the patient/family needs. Recognition and accreditation programs for the patient-centered medical home should acknowledge the care coordination role of the PCMH practice or organization within the larger medical neighborhood and community that shares the care for its patients and families, including transitions across practices and settings (e.g., pediatric/adolescent care transitioning to adult care), interactions with the specialist and subspecialist practices, hospitalists, and care facilities such as hospitals and nursing homes and their connections to home and community based support services.

10. Clearly Identify PCMH Recognition or Accreditation Requirements for Training Programs

Recognition and accreditation programs for the patient-centered medical home should address the unique nature of health professional training programs (e.g., residency programs) by providing clarifications and/or additional explanations where necessary to permit such training site practices to be considered by recognition and accreditation programs.
Additionally, patient-centered medical home recognition and accreditation programs should consider the “Joint Principles for the Medical Education of Physicians as Preparation for Practice in the Patient Centered Medical Home,” released by AAFP, AAP, ACP, and AOA, when developing and/or revising their programs (AAFP, AAP, ACP, and AOA, 2010).

11. Ensure Transparency in Program Structure and Scoring

Programs for the recognition or accreditation of patient-centered medical homes should clearly identify which standards, elements, and/or characteristics relate to each other so that practices and organizations can tackle the prerequisite items first before moving on to others that rely on the responses and documentation for the previous items. Provision of a “roadmap” such as this will result in the recognition or accreditation process being more user friendly in terms of how the applicants can approach the requirements and move along the continuum toward medical home transformation, while still allowing for variation.

Similarly, those programs that involve scoring, rating, or ranking of practices and organizations against their established standards, elements, and/or characteristics should ensure that their scoring processes are informed by evidence, and are as transparent, consistent, and objective as possible. The scoring processes for these programs should include the provision of specific feedback to applicants regarding the calculation of their scores, highlight areas of strengths and weaknesses relative to the program’s requirements, and acknowledge incremental improvements that have been or can be achieved.

12. Apply Reasonable Documentation/Data Collection Requirements

It may be necessary for a patient-centered medical home recognition or accreditation program to require provision of documentation by practices and organizations in order to verify that they are indeed implementing the standards, elements, and/or characteristics of the program. This documentation may be prospective “proof” of processes and structures that indicate the submitting practice or organization is capable of providing preventive, acute, and chronic care consistent with the patient-centered medical home model and/or process and outcome measure data that meet certain performance or improvement thresholds (e.g., chronic care management, provision of preventive services, patient experience). For any documentation approach that is taken, the requirements should be transparent, consistent, and regularly reviewed for their relevance and reliability. Documentation requirements found not to be relevant or reliable should be removed from the requirements when identified. Further, programs should be prepared to provide comprehensive and accessible technical assistance to applicants that supplement clear application and documentation instructions.

Additionally, recognizing and accrediting bodies should consider collaborating with health information technology (health IT) vendors, such as registry and EHR companies, to ensure that the vendors incorporate structured data elements that will enable collection of the necessary data, according to patient population (e.g., pediatrics, geriatrics, adult), to meet the documentation requirements for each of the standards, elements, and/or
characteristics. This could eventually allow applicants to submit the required
documentation directly from their health IT solutions. Recognizing and accrediting
bodies should also consider consulting with public health agencies to ascertain those data
elements that could effectively measure and enhance knowledge of health and healthcare
disparities in a community.

13. Conduct Evaluations of the Program’s Effectiveness and Implement
Improvements Over Time

Entities involved in the development and implementation of patient-centered medical
home recognition or accreditation programs should exhibit a commitment to
comprehensively evaluate and improve their programs over time, informed by evidence,
field testing, the experience of the stakeholders utilizing their programs including patients
and families, public comment, and the changing health care environment. The evaluation
should include qualitative measures that address quality of care (preventive, acute, and
chronic) across all ages and cultural backgrounds; patient, family, and health care
professional satisfaction; and the effectiveness of the recognition/accreditation program’s
technical assistance and guidance to applicants; as well as quantitative measures that
address health outcomes, utilization and program costs, and the changing health care
environment. Results of these evaluations should be published in the professional
literature.

Additionally, in order to ensure that the participating practices are fulfilling the
program requirements, recognizing and accrediting entities should conduct random site
visits and/or audits of a percentage of those practices. The participating practices should
in turn have a transparent and easy-to-use mechanism for providing direct feedback to the
recognizing or accrediting entities, and receive assurance of a timely response when a
response is appropriate or requested.

References:
AAFP, AAP, ACP, and AOA. 2010. “Joint Principles for Medical Education of
Physicians as Preparation for Practice in the Patient-Centered Medical Home.”
Available at: http://www.acponline.org/running_practice/pcmh/understanding/educ-
joint-principles.pdf [accessed March 2, 2011].

Institute of Medicine (IOM). 1996. Primary Care: America’s Health in a New Era.
Molla S. Donaldson, Karl D. Yordy, Kathleen N. Lohr, and Neal A. Vanselow, eds.

Margarita P. Hurtado, Elaine K. Swift, and Janet M. Corrigan, eds. Washington, DC:
National Academy Press.
Patient-Centered Medical Homes (PCMHs) are transforming primary care practices into what patients want, focusing on patients themselves and all of their healthcare needs. They also are foundations for a healthcare system that gives more value by achieving the ‘triple aim’ of better quality, experience and cost. This white paper lays out our vision for achieving that goal by chronicling PCMH evolution to date, challenges before us, potential solutions underway and those yet to be developed.

More than 10 percent of U.S. primary care practices, approaching 7000 altogether, are recognized as PCMHs by the National Committee for Quality Assurance (NCQA), which has the nation’s largest PCMH program. To earn NCQA recognition, practices must meet rigorous standards for addressing patient needs. That means offering access afterhours and online so patients get care where and when they need it. PCMHs get to know patients in long-term partnerships, rather than hurried, sporadic visits. They make treatment decisions together with patients based on individual preferences. They help patients become better engaged in their own healthy behaviors and healthcare. Everyone in the practice – from clinicians to front desk staff – works as a team to coordinate care from other providers and community resources. This maximizes efficiency by ensuring that highly-trained clinicians are not doing tasks lower level staff can do. They also avoid costly and preventable complications and emergencies by focusing on prevention and managing chronic conditions.

A growing body of evidence documents PCMHs’ many benefits, including better quality, patient experience, continuity, prevention and disease management. Studies also show lower costs from reduced emergency department visits and hospital admissions. Other studies show reduced income-based disparities in care and provider burnout. Yet some have equivocal results.

PCMHs’ power in improving the quality, cost and experience of primary care, however, only begins the broad change our health care system needs. Other providers and facilities must build on PCMH foundations to establish patient-centered care throughout all of healthcare. This is beginning in Patient-Centered Specialty Practices (PCSPs), which help specialists become part of medical neighborhoods to improve quality and access. Adoption of patient-centered strategies also is underway in many emerging Accountable Care Organizations (ACOs). ACOs build on a solid PCMH foundation to coordinate doctors, hospitals, pharmacies, other providers and community resources and make sure people get all the care they need. They share savings from reduced waste and inefficiency if they also improve quality.

### Key Facets of Patient-Centered Medical Homes

- **Enhanced Access After Hours & On-Line**
- **Long-term Patient & Provider Relationships**
- **Shared Decision Making**
- **Patient Engagement on Health & Healthcare**
- **Team-Based Care**
- **Better Quality & Experience of Care**
- **Lower Cost from Reduced Emergency Department & Hospital Use**
But this still is only a start. Most providers today are not yet in PCMHs, PCSPs or ACOs. Those who are may be on steep learning curves, or lack the capabilities, commitment and resources to sustain transformation. PCMH transformation is not easy and requires a long-term commitment from every team member and a significant financial investment. Practices may face technological or legal challenges with electronic access privacy and liability. Coordination with community services, public health, dental, post-acute and other settings is minimal. Linking with behavioral care is particularly challenging yet critical because many with chronic illness also have behavioral co-morbidities. Payments and other supports vary widely among insurers and may not be sufficient, especially for non-face-to-face and team-based services not traditionally covered. Also, most patients are unaware of PCMHs. Focus groups with PCMH patients show they are aware of better access and coordination, but not the PCMH name. Those not in PCMHs often doubt such care is even possible.

We are making steady progress in addressing many of these challenges. For example, Medicare is moving to support PCMHs with both performance-based and non-face-to-face chronic care management payments. Interest in PCSPs and ACOs is growing, and patients, providers and payers with PCMH experience agree this is the future we all want. This journey to get better healthcare value by focusing on patients will succeed.

Goals for PCMH and Beyond

We have several goals for the Patient-Centered Medical Home:

- Primary care clinicians will improve quality, patient experience, coordination and value through better prevention and access to reduce emergency department and hospital care.
- Primary care will be the foundation of a high-value health care system that provides whole person care at the first contact. Everyone in primary care practices – from physicians and advanced practice nurses to medical assistants and frontline staff – should practice to the highest level of their training and license in teams to support better access, help with self-care, and coordination.
- PCMHs will show the entire health care system what patient-centered care looks like. Patient-centered care is “respectful of and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions.” Individuals and families get help to be actively engaged in their own healthy behaviors, health care, and in decisions about and their care.
- PCMHs will revitalize the “joy of practice” in primary care, making it more attractive and satisfying.

This vision is becoming reality in many parts of the country. For example in Vermont, NCQA-recognized PCMHs are being widely adopted as the foundation for the state’s “Blueprint for Health.” Purchasers and policymakers there are now engaging a broader set of providers – specialists, hospital systems and community providers of social and long-term services and supports – to align incentives for better value.

The Medical Neighborhood – While primary care is the foundation for delivery system transformation, PCMHs alone cannot change the entire system. Data sharing among primary care, specialists, hospitals, and other providers is needed to maximize coordination and management. Our current payment system drives greater use of services, especially high-volume services for hospitals and many specialists. Primary care spending is low and a small share compared to other providers, which limits access to capital for information technology and other systems to support outreach, patient engagement and analysis. Other parts of the system must also have strong incentives to change if we are to realize better outcomes.
**Patient-Centered Specialty Practices:** Specialty care clinicians provide many services and many patients seek specialists’ care directly without primary care consults. For patients with certain chronic conditions, specialists serve as primary care providers for extended periods of time. Creating better ways for information to flow effectively among primary care clinicians and specialists is critical for care coordination and reducing duplicative care. In 2013, NCQA launched the Patient-Centered Specialty Practice (PCSP) program to recognize specialists that use systems and processes needed to support patient-centered care, including strong communication with other providers.

**Accountable Care Organizations:** ACOs are bringing communities of doctors, hospitals and other providers together to improve outcomes and lower costs. They share in any savings if they can show improved quality. Medicare and many other insurers now support these "shared savings" opportunities. PCMHs provide the solid foundation ACOs must build to assure quality, patient-centered care. ACOs also can help build and redistribute funding to primary care to develop critically important PCMH infrastructure.

**Behavioral Health:** This is a key focus for better integration, particularly in Medicaid where many high-cost enrollees have behavioral conditions. Integrating behavioral health poses additional challenges from heightened privacy concerns, culture differences, and patients’ tendency to avoid primary care. Unaddressed behavioral health conditions can exacerbate physical health conditions, which increases disability and cost. Medicaid “health home” initiatives are now working to address this by either bringing primary care into behavioral health practices or providing behavioral health expertise in primary care settings. Some states use NCQA’s PCMH and PCSP standards to define health home capabilities.

**Public Health:** Bringing complementary strengths of public health and primary care together has great potential. Some public health providers—school-based, HIV and community health centers—provide primary care and can be PCMHs. The Health Resources and Services Administration is helping community health centers become PCMHs. North Carolina is using public health staff to visit at-risk pregnant women in their homes to help primary care providers engage these patients and get them better prenatal care. Vermont also is connecting its PCMHs and providers of long-term services and supports to provide much needed information and coordination to support patients’ full set of needs and circumstances. Helping all PCMHs connect with community resources that can also improve health will be critical going forward.

**Worksite, Retails Clinics and Pharmacies:** Other settings receiving increased interest include worksites, retail clinics and pharmacies. Worksite clinics are increasingly serving as employees’ main primary care setting. Retail clinics that treat minor problems in drug stores and other convenient settings are expanding to address wellness, health promotion, and chronic care management. Many refer patients back to community primary care clinicians for needed follow up. Pharmacies also are taking on new roles with immunizations, health and wellness screenings, adherence and other medication management services. As these options gain in popularity and scope, it becomes increasingly important to share information between them and PCMHs.

**NCQA PCMH Evolution to Date**

The American Academy of Pediatrics introduced the medical home concept in 1967. A generation later, in 2004 the specialty of family medicine called for all patients to have a “personal medical home.”xii In 2003 NCQA launched Physician Practice Connections, a PCMH precursor program. In 2007, leading primary care associations released Joint PCMH Principles.xiii In 2008, NCQA launched the first PCMH Recognition program, with updates to raise the bar in 2011 and 2014. NCQA’s PCMH program is the largest, with over 34,600 clinicians at 6,800 sites – about 10 percent of all primary care clinicians.
<table>
<thead>
<tr>
<th>Year</th>
<th>Version</th>
<th>Elements of the Program</th>
</tr>
</thead>
</table>
| 2003 | Physician Practice Connections | PCMH precursor recognized use of systematic processes and health IT to:  
- Know and use patient histories  
- Follow up with patients and other providers  
- Manage patient populations and use evidence-based care  
- Employ electronic tools to prevent medical errors |
| 2008 | PPC- PCMH | First PCMH model implemented the Joint Principles, emphasizing:  
- Ongoing relationship with personal physician  
- Team-based care  
- Whole-person orientation  
- Care coordination and integration  
- Focus on quality, safety and enhanced access |
| 2011 | PCMH 2011 |  
- Incorporated health information technology meaningful use criteria  
- Added content and examples for pediatric practices on parental decision-making, age-appropriate immunizations, teen privacy, etc.  
- Added voluntary distinction if the practice participates in NCQA’s standardized survey of patient experience  
- Added content and examples for behavioral health |
| 2014 | PCMH 2014 |  
- Further integrate behavioral health  
- Additional emphasis on team-based care  
- Care management for high-need populations  
- Encourage involvement of patients and families in practice management  
- Alignment of Quality Improvement activities with the “triple aim” of improved quality, cost and experience of care  
- Alignment with health information technology Meaningful Use Stage 2 |

_Broad Support:_ Many public and private sector initiatives support PCMH transformation. The Department of Defense is working to transform all of its primary care practices into NCQA PCMHs. The Department of Health and Human Services is helping hundreds of community health centers and Federally Qualified Health Centers to also become PCMHs. The Office of the National Coordinator for Health Information Technology’s Regional Extension Centers provide technical assistance to practices. Congress is advancing legislation to move Medicare beyond demonstration programs in selected states to support PCMHs nationwide with new payments to reward value and non-face-to-face chronic care management services. In addition, states and private insurers have programs in place to support PCMHs in more than three dozen states.

Practices of all sizes earn NCQA recognition. Most have fewer than 8 clinicians, and over one third have only one or two, even though larger practices with more staff and other resources can more readily make the transformation. More than 75 percent of NCQA PCMHs have achieved Level 3 Recognition, representing the most advanced capabilities. Level 1 Recognition is for practices beginning to achieve meaningful transformation.

PCMH penetration is greatest in states that provide the most technical and financial support in making this powerful transformation. In New York State, for example, one quarter of all primary care practitioners are in NCQA-recognized PCMHs. Some states and initiatives use other medical home programs.
Attributes for Success: There are many paths to becoming successful PCMHs – they do not all look alike and generally take local circumstances and preferences into account. NCQA has identified several key attributes that contribute to PCMH success:

- Most successful practices have received financial or technical assistance, or both, to transform. They particularly value practical examples and support for meeting requirements, and worry about maintaining their financial sustainability.
- Organization leadership, a team-based approach, health information technology and delegating self-management education to non-physician team members are also features of most successful practices.
- Involving patients and families in practice improvement efforts through advisory committees, ombudsmen or navigators, is a hallmark of some of the best PCMHs.
- They take a systems approach and, as result, have data, standard measurements, technical assistance, leadership and personnel.
- Having quality improvement systems in place, further distinguishes high performers.

Challenges and Concerns

Despite the successes of PCMHs and the NCQA approach, feedback shows that not everyone embraces the program. Some concerns are specific to NCQA, others relate to broader challenges.

Concerns about the NCQA Approach: Despite its popularity, NCQA’s process is criticized for focusing on practice structure rather than outcomes, its cost and frequency. NCQA recognition involves a detailed assessment of practice capabilities and processes because evidence suggests structure and process drive outcomes. A multi-stakeholder committee – expert in primary care and representing clinicians, payers, consumers and others – convenes to define key expectations. The public also is invited to comment. The key elements are expressed as written standards, or a series of statements that describe the expectations. The standards provide a clear roadmap to what practices need to have in place to be successful as PCMHs.
NCQA evaluates how well practices meet expectations. Some are “must pass” and practices failing them cannot get NCQA recognition, regardless of how well they do otherwise. Practices that pass all “must pass” requirements and achieve a minimum number of points are then recognized as PCMHs for three years. The number of points also determines their Recognition level, with Level 3 Recognition for the highest scores.

Using NCQA’s Interactive Survey System, practices upload documentation, such as screen shots and reports, to show how they meet expected capabilities and processes. NCQA reviews the documentation off-site. Some stakeholders contend that on-site review is more effective but there is no evidence to support this extra cost. Compiling documentation itself requires significant administrative effort.

Structure vs. Outcomes – NCQA assesses the structural capabilities and processes needed to be PCMHs. Practices must demonstrate continuous quality improvement on at least two clinical, patient experience, or cost/utilization measures, but NCQA does not evaluate overall outcomes. Some PCMH initiatives do measure outcomes if they have claims and other information. But practices themselves often lack data on hospital admissions, emergency room visits and other care provided outside the practices. Also, practices are diverse and often lack enough of any particular type of patient to support robust case sampling. Working toward measuring outcomes in PCMHs is a top NCQA priority, and our ultimate goal is a balance of structural and performance measures, as we have for NCQA Health Plan Accreditation. However, structural measures are the best option until we have consensus and good data sources on the best outcome measures for PCMH evaluation. Further, structural measures are useful as a roadmap that tells practices what they need to do to become PCMHs.

NCQA has developed an approach to measuring PCMH patient experience, which moves towards outcomes, but it involves additional costs and uptake is slow. By doing this we have learned that:

- **Patient Experience is Another Powerful Improvement Tool:** Measuring patient experience provides critical feedback that that practices can use to identify and address areas for further improvement.
- **Choice of Measures is Critical:** The Consumer Assessment of Healthcare Providers & Systems Clinician and Group (CG-CAHPS) survey now includes PCMH-specific questions, such as on after-hours access. Initial feedback suggests that these measures are sound, distinct from traditional core measures and distinguish successful PCMHs. Sponsors using them, such as the Veterans Administration, want to continue using them. There is a version control problem, with different versions of the CG-CAHPS being used for different quality reporting programs. Also, the survey is long and work must continue to further refine it.
- **Alignment Also Matters:** Agreement on a core set of measures is necessary for establishing benchmarks and minimizing burden. However, some related initiatives, including ACO pilots, are requiring or considering different CG-CAHPS survey versions focusing on different reporting levels (individual clinician, practice, ACO, etc.). This discourages PCMHs in those initiatives from also reporting the PCMH version and thus hinders development of needed benchmarks.
- **On-site Patient Surveys are Problematic:** Some vendors promote patient surveys when they get care and contend that this supports faster analysis and improvement. However, it also creates opportunities for gaming by coaching patient responses. Ensuring fair results and comparisons is essential if such measures get more weight, particularly if they are used as criteria for financial incentives.

**Cost of Recognition**—NCQA PCMH Recognition fees range from $210 to under $150 per clinician per year, and almost all practices receive some type of discount. (Please see Appendix A for a full price chart.) For example, practices get a 20 percent discount when sponsored by payers and 10-20 percent if they are part of a multi-site group. Cost concerns are more common in smaller practices and those hiring consultants or staff to support recognition.
Greater concerns exist on related costs, such as for electronic health records that are needed to achieve Level 3 recognition, despite federal electronic health record “meaningful use” financial incentives. Enhanced revenue available to many PCMHs should also be considered in considering costs. This includes direct support from payers plus benefits of NCQA PCMH alignment with health IT meaningful use and other incentive programs for which NCQA recognized practices are directly prepared.

Three-Year Recognition—NCQA requires practices to be re-evaluated every three years. Many practices fully commit to ongoing practice transformation through development of care teams, integrating more advanced data exchange and tracking and developing more strategies to engage patients. However, some revert to “business as usual” after achieving NCQA recognition. Some stakeholders wonder if PCMH performance should be monitored more frequently to make sure practices meet expectations. Others suggest that payment should evolve from per-member-per-month fees to reward PCMHs’ actual performance on outcomes, which requires consensus on and data sources.

Concerns about Financial and Practice Support – PCMHs often are supported by sponsors or initiatives with financial incentives for participation. Many practices say recognition renewal is highly dependent on continuing financial support. Support varies, but per-member per-month coordination fees are common, as are across the board fee schedule increases. Practices also may receive bonus payments for high performance on clinical quality and resource use measures. Some sponsors and initiatives pay for NCQA survey-related fees and training. Others go further and support care coordinators that practices may share (as in Vermont), integrated health information technology and connections to behavioral health and long-term services and supports resources.

To strengthen this financial support, some suggest weighting per-member per-month payments for complex patients. There also is interest in building advanced measurement reporting systems for more streamlined benchmarking, larger incentives and eventually shared savings. This offers another way to prevent PCMHs from reverting to business as usual.

Multi-payer initiatives, such as those sponsored by Medicare, Medicaid and commercial plans together, furnish the strongest incentive for practices to participate, especially when they use similar standards and payments. Practices have less reason to invest in PCMH transformation if they have:

- Uneven or inadequate financial support. Sponsors must pay enough to cover ongoing PCMH costs either in direct incentive payments or other types of support.
- Fragmentation among payers. If different sponsors use different incentives or standards, practices may be less sure about whether or where to participate.
- Payers who are concerned about legal challenges for aligning payment strategies. States like Montana have enacted statutory antitrust protections for PCMH initiatives to address this.

Broader concerns — Excellent primary care embodied in the PCMH is fundamental to better health care. Yet it is unrealistic to expect primary care to be the only locus for delivery system reform when so much health care (and health care spending) is driven by specialty providers.

- How to bring in specialists? – NCQA is working to create better connections among clinicians in the PCSP program. This program contains similar standards as PCMH with specific expectations for specialty and primary care clinician communication and agreement on how to work together to better coordinate patient care. However, other steps also are needed to create better incentives for specialists to collaborate and focus on value, for example through payment strategies.
Many initiatives build on a traditional fee-for-service foundation, where payments and quality measurement determinations are based on patients who seek care in PCMHs. Sponsors often pay PCMHs for patients assigned to them (common in Medicaid and HMOs) or based on attribution algorithms (common in PPOs and Medicare) that match patients to providers they see. However, disagreements sometimes exist about which patients are which providers’ responsibility (patients seeing multiple primary care providers may most need PCMH coordination efforts). There also is increasing interest in finding ways to help practices reach and engage broader populations, including those who do not seek care.

**What about the Small Practice?** Regions with many small, traditionally organized practices also tend to have shortages of providers and resources, such as high-speed internet access, which may make advanced primary care more challenging. However, we must support practices of all type and places. And we must do so while we continue to push for greater accountability from practices with greater resources and in more integrated environments. That is why consistent, meaningful support from all payers for practices to transform into and maintain themselves as PCMHs is so critically important.

**How to better address pediatric concerns?** – NCQA added standards in 2011 to better address pediatricians concerns, such as parental decision-making, age-appropriate immunizations and teen privacy. However, we continue to explore how we might better support pediatricians’ efforts in other areas, such as well-child care.

**How to build patient demand for PCMHs?** – Most people choose health care providers through word-of-mouth references from friends and family. Yet efforts to build on that by educating patients about PCMH benefits and help them seek them out for care are only beginning. Consumer Reports has featured PCMHs in its highly-regarded pages and a few other press accounts are appearing. Some payers are promoting PCMHs through patient education, featuring recognized practices in provider directories, and placing PCMHs into tiers with lower cost sharing. Much more must be done, though, for PCMH recognition status to become a key factor in patients’ choice of new primary care providers.

**How to incorporate medication management?** Medications are involved in 80 percent of all treatments, yet lack of coordination across providers leads to poor outcomes. Improving medication management can be a critical element of both PCMHs and ACOs.

### Potential Solutions

All of these challenges can and must be addressed. Potential strategies include better practice supports, making the transformation process more efficient, aligning policies to better support this movement, building up from PCMHs to medical neighborhoods and ACOs, and other steps.

**Supporting Practices** – To provide better support to practices working to transform into PCMHs, NCQA has a certification program for the growing numbers of consultants that offer to help practices prepare for PCMH evaluation. These Certified Content Experts must complete two rigorous PCMH education seminars and pass a comprehensive exam validating their knowledge of NCQA standards and guidelines, application procedures, survey processes and documentation requirements. Less than 80 percent of applicants pass. Certification helps practices gauge how well consultants understand NCQA’s program requirements. NCQA also has a pre-validation program that evaluates electronic health records, registries, population health management tools and related software’s alignment with PCMH requirements. NCQA verifies that pre-validated products completely meet one or more PCMH requirements and gives practices automatic credit for them, which reduces documentation needs.
Several states are also working to help practices transform and maintain status as PCMHs. Vermont stands out for its initiative, which supports care coordinators that practices can share and connects PCMHs to providers of long-term services and supports to enhance care coordination. In some states, public-private partnerships provide practice transformation support, such as HealthTeamWorks in Colorado. Other states, like Pennsylvania, hope to use federal State Innovation Model grants to expand PCMHs throughout their states by providing technical support to more practices, especially rural, urban and smaller ones. There is growing recognition that all payers – federal, state and commercial alike – must increase primary care payment rates and align PCMH standards and payment policies to ease the burden.

There also continues to be great interest in advancing information exchange needed for good care coordination and measurement through better health information technology. Even sophisticated electronic medical records have only limited ability to help analyze data needed to maximize improvement. PCMHs ability to improve the health of broad populations simply cannot happen without advanced informatics capabilities that few health IT vendors now provide.

Building from PCMH – Extending patient-centeredness beyond primary care also is crucial, both for supporting PCMHs themselves and improving quality, cost and experience throughout the health care system. PCMHs can provide the best care coordination only when all other providers also understand the importance and are committed to sharing information and working together to meet patient need. The Patient-Centered Specialty Practice – The standards and expectations in NCQA’s PCSP program directly build on what we have learned with PCMHs. Moreover, the goal of the PCSP program is to provide more support to PCMHs by enhancing coordination among clinicians in different practices. There is today often a serious disconnect between primary care providers and the specialists to whom they refer patients. The typical primary care provider coordinates with 229 physicians in 117 practices. But coordination between primary care and specialty providers is often lacking. In fact, up to half of referring physicians did not know if patients had seen the specialist to whom they had been referred. Some suggests that a standard structure and guidelines for specialty-primary care coordination could have as much or more return-on-investment as better clinical care. To fill this gap NCQA developed the PCSP program based on the “medical neighborhood” concept, developed by the American College of Physicians and Agency for Healthcare Research & Quality. It builds on the PCMH program to improve communication and care coordination with:

- Written referral agreements on specialists’ roles and responsibilities and expectations for sharing information and coordinating care;
- Standards for timely access to care and clinical advice based on patient need;
- A systematic approach to track patients and coordinate care;
- Measuring performance to identify and act on needed improvements; and
- Three Recognition levels to support pay-for-performance programs.

PCSPs have great potential to improve quality, cost and patient experience. After launching in 2013, over 70 practices in 17 specialties stepped forward as “early adopters;” 30 have submitted applications.

Accountable Care Organizations – ACOs also build on a solid PCMH foundation to bring patient-centered care to entire health care communities. ACOs coordinate doctors, hospitals and other health professionals to make sure people get all the care they need, while eliminating waste and inefficiency. Payments to ACOs reward efficiency rather than the volume of services they provide, if they can show improved quality.
NCQA’s ACO accreditation program assesses how well an ACO is likely to provide high quality, efficient care. We specifically evaluate whether an ACO:

- Ensures access to and availability of care;
- Protects patient rights, including privacy;
- Has a solid foundation of patient-centered primary care;
- Has the necessary care management and coordination capabilities;
- Monitors practice patterns and uses performance data to improve quality;
- Uses decision supports to help patients and providers identify the best care; and
- Has necessary stakeholder participation, structure, contracting and payment arrangements.

Additional Approaches – Additional avenues for building on and strengthening PCMHs include:

- Incorporating patient-centered care and PCMH principles into physician, nurse and other training, as some schools are beginning to do.
- Exploring how to tailor Scope of Practice policies for non-physician professionals to help the workforce best prepare for these changes to the delivery system.
- Consider other types of oversight between the 3-year Recognition cycles to ensure that practices continue to meet expectations and identify and address gaps.
- Developing better data sharing among payers and providers and more consolidated reporting systems to facilitate care management and benchmarking for quality improvement purposes.
- Have PCMHs report performance measures to establish benchmarks to identify and address gaps and support more advanced payment models. There are important challenges to meeting this goal, however, particularly with small practices that may not have the financial and/or technical resources, or enough patients for statistically valid results.
- Have successful recognized PCMHs review and provide feedback to practices beginning the PCMH transformation.
- Getting more and better patient feedback on how they perceive PCMH practices and what they think needs to improve. Some practices are beginning to do this already by collecting patient experience surveys, establishing patient advisory councils or having some patients themselves serve as navigators to help others and get feedback from them.

Conclusion

PCMHs are making substantial improvements in the quality, cost and experience of care. We have the momentum to leverage these gains and expand patient-centered approaches throughout our health care system. The challenges are significant but surmountable, and dwarfed by the increasing evidence and broad consensus among stakeholders that this is the direction in which we must and all want to go. The progress, goals, challenges and potential solutions discussed in this paper should help clarify where we are and what we must still do. But there will surely be more challenges and potential solutions that we need to identify and address. We look forward to continuing to work with all stakeholders to further this amazing journey to transform health care by focusing on what patients themselves truly need and want.
References


5. Takach, M, Re-inventing Medicaid: State Innovations to Qualify and Pay for Patient-Centered Medical Homes Show Promising, Health Affairs, July 2011. http://content.healthaffairs.org/content/30/7/1325.abstract


Appendix A

NCQA PCMH Recognition Pricing*

<table>
<thead>
<tr>
<th>Number of Clinicians</th>
<th>Survey Tool License Fee</th>
<th>Standard Three-Year Application</th>
<th>Sponsored Three-Year Application*</th>
<th>Total Standard Cost per Year / per Clinician</th>
<th>Total Sponsored Cost per Year / per Clinician</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$80</td>
<td>$550</td>
<td>$440</td>
<td>$210 / $173</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>$80</td>
<td>$1,100</td>
<td>$880</td>
<td>$393 / $197</td>
<td>$320 / $160</td>
</tr>
<tr>
<td>3</td>
<td>$80</td>
<td>$1,650</td>
<td>$1320</td>
<td>$576 / $192</td>
<td>$467 / $156</td>
</tr>
<tr>
<td>4</td>
<td>$80</td>
<td>$2,200</td>
<td>$1760</td>
<td>$760 / $190</td>
<td>$613 / $153</td>
</tr>
<tr>
<td>5</td>
<td>$80</td>
<td>$2,750</td>
<td>$2200</td>
<td>$943 / $189</td>
<td>$760 / $152</td>
</tr>
<tr>
<td>6</td>
<td>$80</td>
<td>$3,300</td>
<td>$2640</td>
<td>$1127 / $188</td>
<td>$907 / $151</td>
</tr>
<tr>
<td>7</td>
<td>$80</td>
<td>$3,850</td>
<td>$3080</td>
<td>$1310 / $187</td>
<td>$1050 / $150</td>
</tr>
<tr>
<td>8</td>
<td>$80</td>
<td>$4,400</td>
<td>$3520</td>
<td>$1493 / $187</td>
<td>$1200 / $150</td>
</tr>
<tr>
<td>9</td>
<td>$80</td>
<td>$4,950</td>
<td>$3960</td>
<td>$1677 / $186</td>
<td>$1347 / $150</td>
</tr>
<tr>
<td>10</td>
<td>$80</td>
<td>$5,500</td>
<td>$4400</td>
<td>$1860 / $186</td>
<td>$1493 / $149</td>
</tr>
<tr>
<td>11</td>
<td>$80</td>
<td>$6,050</td>
<td>$4840</td>
<td>$2043 / $186</td>
<td>$1640 / $149</td>
</tr>
<tr>
<td>12</td>
<td>$80</td>
<td>$6,600</td>
<td>$5280</td>
<td>$2227 / $186</td>
<td>$1787 / $149</td>
</tr>
<tr>
<td>&lt;50</td>
<td>$80</td>
<td>$6,600 + $10/# &gt;50</td>
<td>$5280 + $8/# &gt;50</td>
<td>$2227 + $3.34/# &gt;50</td>
<td>$1787 + $2.67/# &gt;50</td>
</tr>
</tbody>
</table>

* As of February, 2014.
The Changes Involved in Patient-Centered Medical Home Transformation

Edward H. Wagner, MD, MPH,a,* Katie Coleman, MSPHa, Robert J. Reid, MD, PhDb,c Kathryn Phillips, MPHd, Melinda K. Abrams, MSe, Jonathan R. Sugarman, MD, MPHd

KEYWORDS
• Chronic illness • Primary care • Patient-centered medical home

KEY POINTS
• In 2007, the major primary care professional societies collaboratively introduced a new model of primary care: the patient-centered medical home (PCMH).
• The basic attributes and expectations of a PCMH are outlined, but not with the specificity needed to help interested clinicians and administrators make the necessary changes to their practice.
• To identify the specific changes required to become a medical home, literature was reviewed and consensus with two multistakeholder groups was sought. This article describes the eight consensus change concepts and 32 key changes that emerged from this process, and the evidence supporting their inclusion.

The Patient Protection and Affordable Care Act makes it clear that building a strong primary care sector is now a major goal of American health care policy.1 Underlying this focus on primary care is the premise that more effective care will reduce costs for individuals with chronic illness by improving the quality, experience, and efficiency of their care. The focus on chronically ill patients stems from the fact that beneficiaries with multiple chronic conditions account for “virtually all” of the recent growth in...
Medicare spending. Agreement is now widespread that traditionally organized primary care practices must redesign their infrastructure and the way they organize and deliver care if they hope to achieve more effective, less costly care. In an effort to foster practice transformation and reform payment, the major primary care professional societies proposed a new model of primary care, which couples practice transformation with payment reform. They labeled this new model the patient-centered medical home (PCMH).

The PCMH has many roots: earlier work defining primary care and patient-centered care, the observation that children with major health problems benefit from a general pediatric medical home, and the Chronic Care Model. The Joint Principles of the Patient-Centered Medical Home (February 2007) wove these threads into the PCMH and added payment reform. The PCMH represents an amalgamation of two well-established models: the Pediatric Medical Home model and the Chronic Care Model. The Pediatric Medical Home model clearly places the accountability on the generalist physician team for assuring that care is comprehensive, continuous, accessible, coordinated, and patient- and family-centered. The elements of the Chronic Care Model comprise structural and functional modifications to practice that support patient activation and planned proactive care, and produce better patient outcomes.

The two models are complementary: one describes what patients should expect and how the practice can meet those expectations; the other describes how care should be structured and delivered. Both, however, emphasize the centrality of the relationship between the primary care team and the patient/family. Furthermore, both advocate for the empowerment of patients and their families so that they play a greater role in their health and health care. Although the Joint Principles describe basic attributes and expectations of a PCMH, they do not provide a definition or description of a PCMH that is sufficiently operational to help interested practices and clinicians understand and implement the requisite changes in practice structure and function. To meet this need, the authors sought to define the characteristics of fully transformed medical homes and the changes to practice infrastructure, organization, and care delivery needed to get there. This article describes the consensus change concepts and key changes that emerged from this process, and the evidence supporting their inclusion.

**METHODS**

Defining the practice changes to become a PCMH from an operational perspective was an important early step in the Commonwealth Fund’s Safety Net Medical Home Initiative (SNMHI). The initiative is helping 65 community health centers or other safety net practices in five different regions (Colorado, Idaho, Massachusetts, Oregon, and Pittsburgh) implement the PCMH and evaluate its impacts. The methods used to develop the changes have been described in more detail elsewhere.

To define the characteristics of a PCMH for the SNMHI, project staff reviewed literature related to the definitions and characteristics of a PCMH, including definitions of patient-centered care, descriptions of the Pediatric Medical Home and Chronic Care models, and related topics. They also studied related practice transformation initiatives. Because the efforts to become a PCMH should be guided by the goals of the transformation, the authors first considered the objectives of becoming a medical home. They then tried to identify high level change concepts, which are general notions or approaches to change found to be useful in developing specific ideas for changes that lead to improvement, and then identified more specific key changes under each change concept. Both change
concepts and key changes describe general directions for practice transformation to encourage creativity and adaptation to local resources and circumstances.

The authors then convened a panel of experts and stakeholders in the delivery of primary care, including provider, health plan, patient, and research representatives, to review and edit the preliminary change concepts. A second panel, convened for another PCMH transformation project, reviewed the changes approved by the first panel.

**Preliminary Characterization of a PCMH**

Based on the literature review and study of transformation efforts already underway or completed, the authors developed a preliminary list of features of a PCMH and related change concepts. They suggested that, to become fully developed medical homes, practices would have to implement changes in eight areas. These areas would begin with ensuring (1) engaged leadership and (2) an effective quality improvement strategy, and (3) linking patients with specific providers and care teams (empanelment). Then, through (4) continuous, team-based relationships, patients would receive (5) organized, evidence-based care and (6) patient-centered interactions. PCMHs would assure that patients would get the care they need when they need it in the practice through (7) enhancing access and, from outside the practice, by more effectively (8) coordinating care. Within each of these eight areas or change concepts, the authors suggested three to five more specific features or key changes.

**RESULTS**

**The Goals of PCMH Transformation**

Broad agreement was reached that effective PCMHs should improve patient experience, the quality of clinical care especially for patients with chronic illness, and the work satisfaction of physicians and other primary care staff. Both panels believed that the sustainability of the PCMH model and rationale for increased primary care payments hinged on its ability to reduce health care costs. They emphasized the importance of improved care for patients with multiple chronic conditions because of their high health care costs. Cost data and emerging evidence from pilot evaluations suggested that PCMH-like interventions have the potential to decrease total health care costs principally through reducing emergency room use and hospitalizations for ambulatory care–sensitive conditions.29,31,32

**The Change Concepts**

**Engaged leadership**

Leadership support of any initiative is obviously helpful, but it is pivotal when the initiative involves major changes in a practice’s culture and usual ways of working.33 Implementing the PCMH often requires disruptive changes to the culture, roles, and routines of a practice.28 Active involvement of senior leaders in the change process seems to be crucial. In one study, experts in clinical system redesign reported that “direct involvement of top- and middle-level leaders” was most critical to success.34 Leaders must also recognize that creating and sustaining PCMHs takes considerable time and will engender frustration and unrest.

A useful model for leading transformational change in primary care suggests that effective leaders have knowledge and skills in three important domains: (1) systems thinking, or the capacity to understand the practice as a series of interrelated processes that determine performance; (2) envisioning change, or recognizing the gap between current and optimal practice and promising changes to close the gap; and (3) change
management, or implementing proven strategies for quality improvement and engaging staff in the process. The authors’ suggested key changes reflect these domains. Specific activities and changes recommended under engaged leadership are as follows:

- Provide visible and sustained leadership to lead overall cultural change and specific strategies to improve quality and spread and sustain change.
- Ensure that the PCMH transformation effort has the time and resources needed to be successful.
- Ensure that providers and other care team members have protected time to conduct activities beyond direct patient care that are consistent with the medical home model.
- Incorporate the practice’s values regarding creating a medical home for patients in staff hiring and training processes.

The first and second key changes recognize leadership’s essential role in transformation, including the establishment and support of a quality improvement strategy and infrastructure. Effective leaders can support culture change through increasing the involvement of patients and staff in the process, assuring support from the Board of Directors, and using data and success stories to sustain enthusiasm. Because primary care practices are complex adaptive systems, changes have impacts that ripple throughout the organization. Therefore, effective leaders ensure that boundaries and communication barriers among staff are eliminated; all components of the practice are involved in improvement and transformation; and staff development inculcates the values of providing a medical home for patients.

**Quality improvement strategy**

Implementing something as complex as the eight change concepts of the PCMH is very different from changing a process; it fundamentally changes a practice’s culture and operations, and affects most staff and clients. Change of this magnitude has been called “practice transformation.” Based on their evaluation of a national PCMH implementation pilot, Nutting and colleagues suggested that this transformation requires “epic whole-practice reimagination and redesign.” Successful practices seemed to have “adaptive reserve,” or the leadership and capacity to fundamentally redesign their organization, and an explicit quality improvement (QI) strategy or approach. Studies have confirmed the link between high performance and an explicit QI strategy. To establish an effective strategy, a practice should

- Choose and use a formal model for quality improvement
- Establish and monitor metrics to evaluate routinely improvement efforts and outcomes; ensure all staff members understand the metrics for success
- Ensure that patients, families, providers, and care team members are involved in quality improvement activities
- Optimize use of health information technology to meet meaningful use criteria.

The key changes mentioned collectively create a sustainable continuous QI program that relies on involvement of staff and patients, proven methods for testing ideas for change, and performance measurement. Most successful practice organizations use QI methods that rely on rapid cycles of change and continuous measurement. Little rigorous evaluative or comparative research is available to help practices choose among these approaches. Considerable experience now suggests that selecting a QI strategy and integrating it into the organization’s

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***
culture and operations are more important than worrying about which one to choose.

Trying to improve quality without a trusted measurement system has generally proven futile. Audit and feedback of relevant quality indicators has been shown to improve practice performance.\textsuperscript{42} The work of the National Quality Forum is providing care delivery organizations with a carefully vetted, consensus menu of potential measures.\textsuperscript{43} But many challenges exist to obtaining and interpreting clinical performance measures, especially in smaller practices.\textsuperscript{44} Given the importance of patients with multiple chronic illnesses in adult primary care, measuring performance among this group raises additional considerations, such as the appropriateness of recommended clinical targets or the need for generic measures, such as functional status.\textsuperscript{45}

The involvement of staff in improvement activities provides a grounded perspective on current processes and ideas for change, and may make changes more acceptable.

The final key change, optimizing use of information technology, has now been defined by the Meaningful Use criteria established by the Office of the National Coordinator of Information Technology.\textsuperscript{46} These criteria define the data and functions that should be included in an effective electronic medical record (EMR). Although the implementation of EMRs has accelerated, many practices still do not use them to their full capacity.\textsuperscript{47}

**Empanelment**

The foundation of the PCMH is the longitudinal relationship between patients and providers and the practice team. When patients visit the same practitioner, greater compliance with prescribed medications, improved identification of medical problems, increased patient and provider satisfaction, fewer hospital admissions, and lower overall costs are seen.\textsuperscript{48} In many fee-for-service practices, no explicit process links a patient with a specific provider. Because key features of a medical home, such as continuous team-based healing relationships, enhanced access, population-based care, and care coordination, depend on the existence of strong patient-provider relationships, establishment of these linkages (empanelment) must be an early step in the transformation to a PCMH.

To create patient-provider relationships consistent with the preferences of both parties, a practice should

- Assign all patients to a provider panel and confirm assignments with providers and patients; review and update panel assignments on a regular basis
- Assess practice supply and demand, and balance patient load accordingly
- Use panel data and registries to proactively contact and track patients according to disease status, risk status, self-management status, and community and family needs.

The decision to link a patient with a provider begins with an examination of the past use of the practice by each patient.\textsuperscript{49} In general, patients who tend to see a particular provider are initially assigned to that provider, and others with less consistent use patterns are assigned after discussion among relevant providers.\textsuperscript{50} These tentative links should then be reviewed by the provider and the patient and adjusted accordingly. This empanelment process may be especially challenging in safety net practices, though it has been effectively accomplished in these organizations.\textsuperscript{49}

The process of empanelment provides practices with important information concerning workloads that can help to balance demand among providers. Review of panel data at Group Health Cooperative showed that many primary care panels were too large to provide high-quality care, and they were reduced.\textsuperscript{51} Although many patients had to be reassigned to different providers, with well-designed patient

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***
information and thoughtful management, satisfaction did not decline among the reasigned patients.\textsuperscript{52}

Patient panels and information systems with registry functionality enable staff to identify and reach out to patients with unmet needs. For example, a practice can review its patients with diabetes to identify who may be out of control or missing preventive or chronic care services, and schedule them for a planned visit. Defined panels also enable the measurement and feedback of performance at the individual provider level.

**Continuous and team-based healing relationships**

A primary goal of empanelment is to establish patient-provider continuity, which has been linked to better health outcomes, especially among patients with chronic illness.\textsuperscript{53,54} An effective medical home reinforces this relational continuity and organizes its systems and processes to support it. However, growing evidence shows that the best care is provided by well-organized teams, not isolated clinicians. To provide continuous team-based healing relationships, effective PCMHs should

- Establish and provide organizational support for care delivery teams that are accountable for the patient population/panel
- Link patients to a provider and care team so both patients and provider/care teams recognize each other as partners in care
- Assure that patients are able to see their provider or care team whenever possible
- Define roles and distribute tasks among care team members to reflect the skills, abilities, and credentials of team members.

Although the relationship between clinician and patient is crucial, growing evidence suggests that clinical care improves when other practice team members help meet the clinical needs of patients. For example, team involvement in care has been shown to be among the most efficacious interventions for improving disease control in patients with diabetes,\textsuperscript{55} hypertension,\textsuperscript{56} and depression.\textsuperscript{57} Researchers have estimated that providing care to a patient panel consistent with consensus chronic disease and preventive care guidelines would take a primary care provider 18 hours each practice day.\textsuperscript{58} But work volume is not the only factor that necessitates team care; many of the services chronically ill and other patients need do not require physician involvement, and some, such as self-management counseling or care coordination, are often better performed by team members other than the physician.\textsuperscript{59} A recent European review suggests that enhancing the collective clinical expertise of the team improves processes of care, but also confirms how little is known about the determinants and characteristics of effective teamwork.\textsuperscript{60}

The PCMH should reinforce the ongoing patient-provider link at every opportunity. Abundant evidence confirms that seeing the same clinician over time leads to higher patient satisfaction, more complete preventive care, and better outcomes among people with chronic illnesses.\textsuperscript{54,61–64} Three aspects of continuity have been described in the literature: continuity of clinical information, continuity of management, and continuity of relationship.\textsuperscript{63} Continuity of clinical information and management continuity (consistency of clinical approach) have been improved through the use of shared electronic records that incorporate decision support. However, the real power of continuity resides in continuity of the relationship between patient and provider.\textsuperscript{65} The question is, though, are the benefits of seeing the same provider jeopardized when a patient has an interaction with someone else on the team? One study suggests that no decrease in patient satisfaction occurs when a patient sees someone else on the practice team.
as long as the patient perceives the provider to be part of a well-functioning team with good communications.66

Care teams seem to function best when each member has clearly defined roles that are made transparent to patients. Involving staff in clinical care does not come naturally to many clinicians. It can be facilitated by a deliberate process of delineating and matching the tasks involved in meeting a panel’s needs with the skills, credentials, and interests of staff members. The goal is to have every member of a practice team working “at the top of their license,” providing all the care their license or certification allows. Innovative practices have shown that talented medical assistants can do more than take vital signs and room patients, including providing self-management support,67 reviewing registries, and reaching out to high risk patients needing service. When assigning tasks or roles, practices should ensure that the staff is appropriately trained for their designated functions. Given the high turnover in staff positions, cross-training is also prudent.

**Organized evidence-based care**

Considerable evidence now suggests that implementation of the elements of the Chronic Care Model improves the quality of care for patients with chronic conditions.9,68 Important elements of the CCM, such as team care, patient activation and self-management support, and linkage to community resources, are included in other PCMH change concepts. Table 1 shows how the key elements of the Chronic Care Model have been included in the eight change concepts. The changes included in organized evidence-based care largely address the underuse of proven preventive interventions, clinical assessments, and treatments, which continues to be a major problem in chronic illness care. The Institute of Medicine report, *Crossing the Quality Chasm*,69 primarily attributes the failure to provide scientifically proven services to deficiencies in systems of care, not in the providers working in those systems. Providers are frequently unaware when their patients are in need of a given test or treatment, and, if aware, may not get around to addressing it in a rushed problem-related visit. To routinely deliver organized evidence-based care, PCMHs should

- Use planned care according to patient need
- Identify high-risk patients and ensure they are receiving appropriate care and case management services
- Use point-of-care reminders based on clinical guidelines
- Enable planned interactions with patients by making up-to-date information available to providers and the care team before the visit.

Many of the services proven beneficial to chronically ill patients are periodic and predictable, such as foot examinations in patients with diabetes and forced expiratory volume in the first second of expiration (FEV₁) or peak flow monitoring in patients with asthma, and their administration can be planned. Planned visits are organized to ensure that all needed services are identified before the visit and delivered at the visit. Although limited formal study has been performed of planned care, except for group visits, considerable quality improvement experience suggests its value.70–72 These visits can be initiated through identifying patients in need of services from registries or other data sources, inviting them in for a visit, and obtaining needed test results before the visit. Alternatively, planned care can be delivered during patient-initiated encounters if information systems can efficiently identify needed services and practice teams review the data before the visit and organize their work so that identified service needs are met.

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***
High-risk patients with multiple problems often need more intensive clinical support in addition to assistance with navigating the health care system. The provision of more intensive follow-up and clinical management, in addition to help with care coordination, has generally been called care or case management. Nurse care managers can improve outcomes and reduce costs for elderly and complex chronically ill populations when closely integrated with or embedded in primary care.\(^{32,55,56,73,74}\) Because nurse care managers focus on a very small segment of the practice panel at highest risk of major morbidity, they cannot be expected to meet all of the care coordination needs of a practice. To systematically ensure that patients receive the services they need in a timely way, the practice must know what evidence-based guidelines apply to a specific patient at that time. Provider reminder systems reflecting evidence-based guidelines and embedded in an EMR have been shown to increase the likelihood that recommended services are delivered.\(^{75}\)

### Patient-centered interactions
*Crossing the Quality Chasm* includes patient-centeredness as one of the six goals of high-quality health care.\(^{69}\) Patient-centered care involves patients in decisions about their care and in the process of care to ensure that it is consistent with the patient’s preferences, values, and culture. Other definitions of patient-centered care

\[\text{Table 1}\]

<table>
<thead>
<tr>
<th>Change Concept</th>
<th>Key Changes</th>
<th>Chronic Care Model Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaged leadership</td>
<td>Visible leadership for culture change and QI</td>
<td>Health care organization</td>
</tr>
<tr>
<td>Quality improvement strategy</td>
<td>Use formal QI model</td>
<td>Health care organization</td>
</tr>
<tr>
<td></td>
<td>Establish metrics to evaluate improvement</td>
<td>Information systems</td>
</tr>
<tr>
<td></td>
<td>Optimize use of health information technology</td>
<td></td>
</tr>
<tr>
<td>Empanelment</td>
<td>Use panel data to manage population</td>
<td>Information systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proactive care</td>
</tr>
<tr>
<td>Continuous, team-based</td>
<td>Establish and support care delivery teams</td>
<td>Practice redesign</td>
</tr>
<tr>
<td>relationships</td>
<td>Distribute roles and tasks among team</td>
<td>(team care)</td>
</tr>
<tr>
<td>Organized evidence-based care</td>
<td>Use planned care according to patient need</td>
<td>Practice redesign</td>
</tr>
<tr>
<td></td>
<td>Use patient data to enable planned interactions</td>
<td>(planned care)</td>
</tr>
<tr>
<td></td>
<td>Use point-of-care reminders</td>
<td>Decision support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Information systems</td>
</tr>
<tr>
<td>Patient-centered interaction</td>
<td>Encourage patient involvement in health and care</td>
<td>Activate patients</td>
</tr>
<tr>
<td></td>
<td>Provide self-management support at every encounter</td>
<td>Self-management support</td>
</tr>
<tr>
<td>Enhanced access</td>
<td>Care coordination</td>
<td>Community resources</td>
</tr>
<tr>
<td></td>
<td>Link patients with community resources</td>
<td>Practice redesign</td>
</tr>
<tr>
<td></td>
<td>Provide care management services</td>
<td>(care management)</td>
</tr>
</tbody>
</table>

---

\[\text{Wagner et al}\] 248

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***
emphasize: the patient “as a whole person” rather than a set of diseases or risk factors, the patient’s own role in managing health and illness, the social and emotional aspects of illness and care, and the provision of clear and comprehensible information. Taking a broader view of patient-centeredness, the authors recommend five key changes that a practice can implement to facilitate patient-centered interactions:

1. Respect patient and family values and expressed needs.
2. Encourage patients to expand their role in decision-making, health-related behaviors, and self-management.
3. Communicate with patients in a culturally appropriate manner, in a language and at a level that the patient understands.
4. Provide self-management support at every visit through goal setting and action planning.
5. Obtain feedback from patients/families about their health care experience and use this information for quality improvement.

The quality of care from the perspective of patients and their families generally depends on the extent to which their care is consistent with their needs, preferences, values, and expectations. Despite this seemingly obvious relationship, medical care has generally not placed much emphasis in eliciting this information from patients. Although people vary in the extent to which they want to make decisions about their care, most want the opportunity to discuss treatment options and share their preferences and concerns about treatment. Interventions to increase patient involvement in decision-making, primarily decision aids, are now widely available. They seem to have positive effects on patient satisfaction and adherence to treatment, and can influence treatment choices, especially related to discretionary surgery.

Roughly one-half of patients leaving medical encounters do not comprehend what was recommended by the provider; these patients are, therefore, less likely to adhere to treatment recommendations and generally have worse outcomes than those who can recount the provider’s advice. Making certain that patients and their providers understand each other is an essential goal of a patient-centered practice. Practices with significant non–English-speaking clientele should have reliable translation services or language-concordant staff. Routine assessment of health literacy and use of teach-back or “closing the loop” (asking patients to recount what they have been asked to do) can substantially increase comprehension of medical advice and recommendations.

The ability of patients to effectively manage (self-management) their chronic illnesses is an important determinant of good outcomes. Evidence now indicates that most patients can acquire the skills to become competent self-managers with appropriate support. Most of the published evidence on the effectiveness of self-management support interventions pertains to time-limited group or individual interventions. Because the challenges of self-managing most chronic illnesses fluctuate in content and intensity over time, most experts now recommend that self-management support be an ongoing process best performed in the context of clinical interactions. This function necessitates the availability of practice team members trained to help patients set self-management goals, identify and solve problems in reaching goals, and develop realistic action plans. A new role, the health coach, is emerging to meet the need for self-management support in primary care. Medical assistants and even lay people have, with appropriate training, proven to be effective health coaches.
Measurement of the effectiveness of a PCMH is incomplete without assessing patient experience. Many health care organizations routinely measure patient satisfaction, but often the measures and methods used do not allow the practice to use the data to identify improvement opportunities and evaluate successes. Patient experience measures differ from traditional satisfaction instruments in that they assess key behaviors or activities that occurred during patients’ interactions with the health care provider or system, thus providing a clearer path for intervention and quality improvement. The use of valid instruments and scientifically based sampling methods increase the usefulness of patient experience data.92,93 Several studies show that positive patient experience is significantly associated with better clinical quality outcomes, greater adherence to clinicians’ advice, reduced malpractice risk, and increased patient loyalty to the practice or provider.93–96

Enhanced access
Accessibility, which is the ability to receive acceptable medical care whenever one needs it, is a defining element of high-quality primary care. In reality, however, many Americans have difficulty seeing their doctor when they feel ill, during or outside of traditional office hours. Recent Commonwealth Fund surveys suggest that access to primary care is worse in the United States than in the other 10 developed countries studied. Only one in four American adults with chronic illness could get an appointment the same day if they were sick.97 A survey of primary care physicians found that less than one-third of American primary care doctors reported that they provide after-hours care, the lowest of the 11 countries surveyed.98 Barriers to accessing primary care, such as limited urgent care appointments, or after-hours care, contribute to costly avoidable hospitalizations and emergency room use.99 Therefore, a PCMH should

- Promote and expand access through ensuring that established patients have 24/7 continuous access to their care teams via phone, e-mail, or in-person visits
- Provide scheduling options that are patient and family-centered and accessible to all patients
- Help patients attain and understand health insurance coverage.

Patients should be able to communicate 24 hours a day, 7 days a week with a provider who knows them and has access to their clinical information. Developing enhanced telephone access to the practice during and after clinic hours is an important element. Telephone access to providers during office hours can be improved through more efficient management of incoming calls.31 Telephone access after hours through triage or consultation services has increased clinician satisfaction and reduced clinical workload, but patients express dissatisfaction if they view the service as a barrier to being seen.100–102 A variety of community-based approaches have been used to provide after-hours primary care services.103 Community-based primary care cooperatives in the Netherlands and other countries provide telephone triage and in-person care after hours to the patients of the participating primary care physicians. One evaluation indicated that the cooperative reduced emergency department use by more than 50%.104 Whatever the coverage arrangement, it should be carefully explained to clients of a medical home so that after-hours coverage meets expectations.

Practices must implement flexible appointment systems to accommodate varying patient needs, including: same-day appointments for patients who wish to be seen that day; longer appointments for patients with more complex issues; and appointments made in advance to address preventive services and follow-up. Open- or advanced-access appointment scheduling has been proposed as a way to better

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***
meet patients’ needs. A recent review suggests that implementing advanced access improves appointment waiting time and reduces no-show rates, but effects on patient satisfaction are inconclusive. An early step in the implementation of advanced access is to ensure that the practice has the capacity to meet the demand for its services. Balancing supply and demand, a key step in the empanelment process, is crucial to improving access.

Medical homes, especially those serving lower-income populations, should develop the capacity to help their patients understand or obtain health insurance. Estimates show that as many as 20% of Medicaid-eligible children and 12% of Medicaid-eligible children with major chronic conditions are uninsured because their parents lacked the necessary information or were intimidated by the enrollment process.

**Care coordination**

High-quality medical care now requires that many patients, especially those with chronic illness, receive medical and nonmedical services from multiple providers and organizations. However, breakdowns in communication between providers and organizations limit the effectiveness of these services and contribute to medical errors, unnecessary hospitalizations, duplicate procedures, inappropriate drug regimens, and gaps in follow-up care. Problems after discharge of patients from the hospital highlight this issue. One in five Medicare recipients discharged from the hospital are readmitted within 30 days after discharge; approximately one-half will return to the hospital without having seen a physician in the community. The lack of follow-up is not surprising given that many primary care physicians are not made aware that their patients have been hospitalized.

Although coordinating care is everyone’s responsibility, the PCMH should protect its patients from the damage associated with fragmentation of care. They should help patients access important community services, make key referrals, clarify expectations for prereferral and postreferral care, and facilitate timely transfer of information. To better coordinate care, the PCMH should

- Link patients with community resources to facilitate referrals and respond to social service needs
- Integrate behavioral health and specialty care into care delivery through co-location or referral agreements
- Track and support patients when they obtain services outside the practice
- Follow up with patients within a few days of an emergency room visit or hospital discharge
- Communicate test results and care plans to patients.

Medical homes have an obligation to identify high-quality patient-friendly organizations and programs in their community. For critical services such as cardiology, behavioral health, or weight loss, it helps to have general working agreements in place with the providers and their organizations. The goals of these agreements are shared expectations that could reduce the chances of ineffective or failed referrals, duplicate testing, breakdowns in communication, or other misunderstandings.

Many patients will need more than a referral slip to have a safe and satisfying referral or transition; they may need help securing an appointment, figuring out how to pay for the service, or making certain that all of their providers are well informed. To identify and remedy problems in the referral or transition process, the PCMH should have the capacity to identify and track patients as they move across settings and disciplines. Electronic referral systems that are part of shared EMRs or separate
Web-based programs can facilitate appointment making and referral tracking, and improve the quality and timeliness of the communication.\textsuperscript{114} Care management of patients recently discharged from the hospital reduces morbidity and prevents readmissions.\textsuperscript{115–118} Although these transition management activities begin in the hospital, they must be followed by effective follow-up care in the PCMH. Recent research found that one-half of discharged medical patients, most of whom had a primary care physician, failed to have timely follow-up appointments with their PCP.\textsuperscript{119} Those without timely primary care experienced higher rates of hospital readmission.\textsuperscript{119} Therefore, PCMHs should contact their patients shortly after discharge from the emergency department or hospital. Because many hospitals seem to make little effort to identify a patient’s primary care physician, PCMHs will have to initiate conversations with the hospitals and emergency departments that commonly serve their patients.

Finally, an important element of care coordination is timely communication of test results and care plans with patient. Patients clearly want to know the results of tests performed. Preference studies indicate that most patients find timely mail or electronic communication of normal results to be acceptable, but strongly prefer a telephone call for abnormal results.\textsuperscript{120}

\textit{Implementing the Changes}

Epic whole-practice reimagination and redesign will not become a reality unless practices start with a stable “core structure,”\textsuperscript{28} which includes reliable business and clinical operations, limited staff turnover, and established information systems. QI experience strongly suggests that practices have great difficulty making changes while in the throes of implementing an EMR or dealing with key staff turnover. The change concepts and key changes build on one another, suggesting that sequential implementation will be most practical and effective. Meaningful practice change is unlikely unless an organization has the internal capacity to learn and change, or “adaptive reserve.”\textsuperscript{121} Adaptive reserve largely seems to be a function of unified leadership that can envision a future, facilitate staff involvement in a strategy for getting there, and devote time to plan, make, and evaluate changes. Engaged leadership and putting in place an effective QI strategy should therefore be initial priorities. Most of the remaining change concepts assume a primary patient-provider relationship, so empanelment should be tackled next. Once patients are in panels, practice teams should begin work on changing the way they deliver care. This step usually involves selected changes from three change concepts: continuous and team-based healing relationships, patient-centered interactions, and organized evidence-based care. Early changes include establishing practice teams and defining roles, using data systems to begin planning care, and developing the capacity to routinely provide self-management support. Care coordination is a critical practice function that should be addressed when team role assignments are considered. Access has two major components: after-hours coverage and a more patient-friendly appointment system. The former should be undertaken early, because it may be critical to assuring continuity and reducing emergency room use. The latter can be arduous, and might best be addressed after care teams and delivery have been reorganized. The SNMHI Web site includes guides for implementing each of the change concepts (http://www.qhmedicalhome.org/safety-net/about.cfm).

The change concepts are intended to guide the formulation and testing of specific practice changes reflective of the unique needs, capabilities, and culture of each practice organization. They serve as the goals of practice change, not the specific methods through which to reach the goals. The key changes, although more actionable,
generally are also not specific or concrete enough to implement as such. They should be viewed as opportunities for innovation and adaptation rather than prescriptions for implementation. As practices use and test the key changes and evidence accumulates, they will become more specific and useful.

**SUMMARY**

The components of the PCMH identified collectively capture the major features of the Medical Home and Chronic Care Models.

The change concepts described also correlate closely with other definitions of the PCMH and with the National Committee on Quality Assurance’s PCMH recognition program criteria. These criteria focus more on the availability of electronic data than do the change concepts, which place more emphasis on the functions of information systems (whether electronic or paper) in patient care, such as using patient data for outreach and care planning, performance measurement, and clinician reminders.

The authors believe that implementation of the PCMH as defined earlier best meets the needs of patients with chronic illness. In addition to receiving care from a provider and practice team that knows them as a person and is organized in accord with the Chronic Care Model, chronically ill patients will be more likely to have the continuity of care, enhanced access, and care coordination that will help them avoid unnecessary emergency room visits and hospitalizations. As the number of a patient’s chronic conditions increases, the number of physicians seen, health care costs, reported medical errors, and coordination problems also increase. A well-organized PCMH should help to avoid this expensive and potentially dangerous spiral.

The authors wrestled with the question as to whether the change concepts and their more specific changes should only include items supported by robust evidence showing that they contribute to reaching the PCMH goals. Although the recommended changes should adhere to evidence as much as possible, the reality is that the evidence supporting some of the essential and defining features of primary care, such as after-hours coverage or care coordination, is limited. Therefore, the more specific recommendations embedded in many of the key changes should be viewed as provisional, subject to change as new evidence emerges. The change concepts and key changes described are providing the guiding framework for statewide PCMH transformation efforts in Washington, Massachusetts, and Montana in addition to the SNMHI. As experience grows, more insight should be gained into how this model can better serve as a template for transformed primary care.

**REFERENCES**


***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***
27. Barr MS. The need to test the patient-centered medical home. JAMA 2008;300(7):834–5.

***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***


***THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW (TITLE 17 U.S. CODE)***


Primary Care Medical Home Comparisons

- HRSA/BPHC’s “National Quality Recognition Initiatives Resources: Comparison Chart”

- Urban Institute’s ”Comparison of Ten Patient-Centered Medical Home Recognition Tools”

- Medical Group Management Report’s “Patient Centered Medical Home Guidelines - A Tool to Compare National Programs”

- The American College of Physicians’ updated “Medical Home Builder”
# Federal Initiatives – $ Support

<table>
<thead>
<tr>
<th>QUALITY INITIATIVE</th>
<th>JOINT COMMISSION</th>
<th>NCQA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) HRSA Accreditation <em>[since 1997]</em></td>
<td>X (includes PCMH certification option)</td>
<td></td>
</tr>
<tr>
<td>2) HRSA Medical/Health Home <em>[since 2010]</em></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3) FY ‘11 HRSA Quality Improvement &amp; PCMH Supplemental Grant ($35k) <em>[in 2011]</em></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4) FY ‘12 HRSA Quality Improvement &amp; PCMH Supplemental Grant (~$55k) <em>[in 2012]</em></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>5) CMS FQHC Advanced Primary Care Practice Demonstration  <em>[in 2011]</em></td>
<td></td>
<td>X (selected sites)</td>
</tr>
</tbody>
</table>
Comparison to NCQA PCMH Recognition

www.jointcommission.org/the_joint_commission_and_ncqa_a_comparison_of_requirements/

NCQA Level 3 PCMH Recognition Requirements Compared to 2011 Joint Commission Standards and EPs

This tool, prepared by The Joint Commission, compares the National Committee for Quality Assurance (NCQA) general standard areas for its 2011 version of the Patient-Centered Medical Home to the specific Joint Commission requirements for its Primary Care Medical Home. While there are differences between The Joint Commission’s evaluation and scoring process (see table below), this analysis demonstrates that The Joint Commission’s Primary Care Medical Home option requirements are comparable to NCQA’s Patient-Centered Medical Home Level 3 requirements.

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>THE JOINT COMMISSION</th>
<th>NCQA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Primary Care Medical Home</td>
<td>Patient-Centered Medical Home</td>
</tr>
<tr>
<td>Award Label</td>
<td>Designation</td>
<td>Recognition</td>
</tr>
<tr>
<td>Accreditation of organization also required?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Levels of Achievement?</td>
<td>NO</td>
<td>YES: Levels 1, 2, 3</td>
</tr>
<tr>
<td>Need to submit documentation?</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>On-site survey process for all organizations to evaluate compliance?</td>
<td>YES</td>
<td>NO (Conducted through on-line submission of documentation)</td>
</tr>
<tr>
<td>On-site consultation regarding approaches to standards compliance?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Copy of preliminary report available on site?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Scope of Evaluation</td>
<td>Entire organization</td>
<td>Delivery site specific</td>
</tr>
<tr>
<td>Length of award</td>
<td>3 years</td>
<td>3 years</td>
</tr>
</tbody>
</table>

© Copyright, The Joint Commission
Joint Commission PCMH vs. NCQA

Easier in 5 Ways

1. Single organization for both PCMH and accreditation (including lab & behavioral health, if applicable).
2. Single site visit integrates evaluation of both (“2 for 1”).
3. PCMH Certification applies to the entire organization (not just a single site).
4. Surveyors provide on-site tools, tips, and suggestions for compliance.
5. Continuing assistance throughout the post-survey follow-up period.

Harder in 4 Ways

1. More requirements must be in compliance.
2. On-site surveys are unannounced (unless seeking first time accreditation).
3. Annual self-assessment is required (“Periodic Performance Review”) during non-surveyed years.
4. Concerns about safety/quality from patients, staff, and community can be submitted to The Joint Commission.
PCMH Requirements Comparison: Joint Commission vs NCQA

Comparable Requirements (examples):
- Providing patients timely access to clinical advice
- Patients select their personal clinician
- Educating the patient about PCMH
- Partner with patient for treatment goals/plan
- Care coordination/tracking across multiple settings
- Providing self-management support to patient
- Offering culturally/linguistically appropriate services
- Care team involved in performance improvement
- Use of evidence-based clinical practice guidelines
- Electronic prescribing

<table>
<thead>
<tr>
<th>THE JOINT COMMISSION</th>
<th>COMPARES TO</th>
<th>NATIONAL COMMITTEE ON QUALITY ASSURANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory Care Accreditation</td>
<td></td>
<td>Level One - Patient-Centered Medical Home recognition</td>
</tr>
<tr>
<td>Primary Care Medical Home</td>
<td></td>
<td>Level Three - Patient-Centered Medical Home recognition</td>
</tr>
<tr>
<td>Certification option plus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulatory Care Accreditation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NCQA Requirements beyond Joint Commission:
- More specific expectations on care team roles/training
- Patient has electronic access to health information, appointments, test results, refills
- Use of electronic health record
- Additional & minimum performance measures (examples)
  - 80% pts with current problem list
  - 50% care transitions have medication reconciliation
  - Set goals & act on minimum of 3 preventive/chronic measures
- Identification of hi-risk/complex patients & patients with important conditions
PCMH Requirements Comparison cont.

**Joint Commission Requirements beyond NCQA:**

- **Patient Rights, including**
  - Making decisions regarding managing his/her care
  - Educating patients about their right to obtain care from other PCCs, seek second opinion, seek specialty care

- **Identify & Incorporate Health Care Literacy Needs**

- **Interdisciplinary team acts on recommendations from referrals**

- **Competency of Primary Care Clinician & Team**

- **Responsibility of PCC for team functioning**
Relationship of Joint Commission’s PCMH to HIT/Meaningful Use Reporting Requirements

Direct Overlap (8 of 15):
- E-prescribing
- Records patient demographics
- Maintains an up-to-date problem list of current and active diagnoses
- Maintains active medication list
- Maintains active medication allergy list
- At least one clinical decision support rule
- Exchanges key clinical information among providers
- Protects electronic health information

Potential Overlap:
- Implements drug to drug and drug allergy interaction checks
- Records and charts changes in vital signs
- Records smoking status for patients >13
- Reports ambulatory clinical quality measures
- Provides patients with an electronic copy of their health information
- Provides clinical summaries to patients for each office visit
- Uses CPOE for medication orders
Primary Care Medical Home Resources

- Joint Commission Primary Care Medical Home Website
  http://www.jointcommission.org/PCMH
  - PCMH requirements & Self-assessment Tool
  - Register for trial version of E-dition (Free 60-day access to electronic version of Ambulatory Care Standards)
  - Request application
  - News, articles and links to other resources!
  - Comparisons to other evaluative models.