

The Medical Home: Toward a Sustainable Future for High-Quality Family Care

By Jeff Link

History: From Medical Records to a Patient-Centered Approach

Originally developed as a way to manage the concerns of children with special health care needs, the term medical home has evolved a long way from its first published reference in the 1967 *Standards of Child Health Care*.¹ As a formal policy of the American Academy of Pediatrics (AAP) in 1977, the medical home initially referred to the storage of medical records for children with multiple health care providers.² Today's medical home continues to reflect its earliest emphasis on pediatric care, comprehensive record keeping, fulltime accessibility, and service continuity, however the American Academy of Family Physicians, the AAP and other professional organizations now recognize the medical home as a physician-directed, patient- and family-centered model in the primary care setting.

There a number of reasons why the meaning of the medical home has undergone such profound transformation—and why interest in a fifty-year-old idea has been revitalized. The biggest may have to do with the emergence of primary care as an attractive solution for increasing the availability, quality, and payment for health care services.³ As patients become increasingly dissatisfied with escalating health care costs, impersonal relationships with healthcare providers, and episodic, quick-fix treatments in hospitals and emergency care offices, primary care has come to be seen as a way to decrease health care expenditures, reduce disparities in the quality and accessibility of public health care, and increase patient satisfaction.

The patient-centered medical home (PCMH), now recognized as the standard by the AAP, American Academy of Family Physicians, American College of Physicians, and American Osteopathic Association, is a model for primary care intended to provide high-quality treatment and acute and chronic care management in a coordinated, family-centered manner.⁴ Ideally, the medical home offers a way for a personal physician to take a lead role in providing for all the patient's health care needs, or taking responsibility for arranging care with other professionals. Not only does the patient have an ongoing relationship with a physician trained to be her first contact, but her care is coordinated across all aspects of the system. From physicians to nurses, mental health providers to

¹ Sia C, Tonnings TF, Osterhus E, Taba S. History of the Medical Home Concept. *Pediatrics*. 2004; 113:1473-78.

² Malouin R, Merten S. *Measuring Medical Homes: Tools to Evaluate the Pediatric Patient- and Family-Centered Medical Home*. American Academy of Pediatrics. National Center for Medical Home Implementation. March 2010: 1-43. Available at: www.medicalhomeinfo.org.

³ Ibid.

⁴ American Hospital Association Committee on Research. *Patient-Centered Medical Home: AHA Research Synthesis Report*. September 2010. American Hospital Association Committee on Research. Available at <http://www.hret.org/patientcentered/resources/patient-centered-medical-home.pdf>

child development specialists, professionals across disciplines work as part of a team to care for the patient on an ongoing basis.

For a patient, the model leaves little reason to complain. Typically, the medical home improves access to care by allowing for open scheduling, expanded hours, and new telephone and web options for enhanced communication with a physician and support staff.⁵ It favors evidence-based care that aims to treat the whole patient. Regardless of his employment schedule, income, age, race, sex, medical history or location on the map, a patient can talk to a doctor whom he knows and trusts.⁶ For most of us, this means more autonomy and satisfaction in the management of our own treatment.

And there is clearly a need for better access to a good family doctor. Approximately 65 million Americans live in officially designated primary care shortage areas, and a recent survey found that only 27 percent of U.S. adults can easily reach their primary care physician by telephone, schedule timely visits, and obtain after-hours care.⁷ For many individuals seeking care, particularly those with acute and chronic conditions, the emergence of more than 100 medical home initiatives, at least 31 states planning or implementing PCMH pilots within Medicaid or the Children's Health Insurance model, and numerous private sector programs may come as a welcome sign of progress.⁸

As part of the national health care reform law, there is also a strong national push for broad implementation of the medical home model. Research suggests that transforming primary care to a PCMH model could reduce health care costs, improve the quality of care for patients with chronic conditions, strengthen the physician-patient relationship, and realign payment incentives with the type of long-term, coordinated care supported by science.⁹ The U.S. Department of Veterans Affairs is currently funding a \$250 million effort to adopt the PCMH model nationwide at its clinics, with an expectation of 80 percent participation by 2012 and full participation by 2015.¹⁰ And at least one federal demonstration model, the Multi-Payer Advance Primary Care Practice (MAPCP), is offering participating providers enhanced payments for Medicare patients, in exchange for medical home initiatives.¹¹

Building a Patient-Centered Medical Home

⁵ Safety Net Medical Home Initiative. Log A, Bailit M. *Health Reform and the Patient-Centered Medical Home: Policy Provisions and Expectations of the Patient Protection and Affordable Care Act*. Seattle, WA: Qualis Health and Bailit Health Purchasing, October 2010.

⁶ Martin JC, Avant RF, Bowman MA, et al. The Future of Family Medicine: a collaborative project of the family medicine community. *Ann Fam Med*. 2004; 2(Suppl 1): S3-S32.

⁷ "Patient-Centered Medical Homes," *Health Affairs*. September 14, 2010.

⁸ See note 4.

⁹ Jaen CR et al. Patient Outcomes at 26 months in the Patient-Centered Medical Home National Demonstration Model. *Ann Fam Med*. 2010; 8(Suppl 1):S57-S67; S92; Keckley P, Underwood H. *The Medical Home: Disruptive Innovation for a New Primary Care Model*. Deloitte Center for Health Solutions: Washington, DC; 2008.

¹⁰ See note 7.

¹¹ See note 4.

But what impact will the patient-centered medical home have on small, individual practices? And how do health care professionals, particularly those working with children and youth with special health care needs (CYSHCN), implement it in their practices? The answers may not be as discouraging as you had imagined. In 2007, the American Academy of Family Physicians, in collaboration with the AAP, the American College of Physicians, and the American Osteopathic Association outlined joint principles, which are formally recognized by the National Committee for Quality Assurance (NCQA) as the Physician Practice Connections—Patient-Centered Medical Home (PPC-PCMH standards).¹² Applying for recognition is straightforward and may be done online at the NCQA website (<http://www.ncqa.org/tabid/631/Default.aspx>). As part of the application process, practices receive free Web CT training on how to implement the nine PPC standards (below).¹³

Standard 1: Access and Communication

Standard 2: Patient Tracking and Registry Functions

Standard 3: Care Management

Standard 4: Patient Self-Management Support

Standard 5: Electronic Prescribing

Standard 6: Test Tracking

Standard 7: Referral Tracking

Standard 8: Performance Reporting and Improvement

Standard 9: Advanced Electronic Communications

PPC-PCMH builds upon the Physician Practice Connections (PPC) Recognition Program. Providers can apply for one of three recognition levels—basic, intermediate, and advanced; scoring is based on a 100-point scale. PPC-PCMH Recognition is more difficult to attain than PPC and requires 10 “must pass” elements. To date, nearly 10,000 physicians nationwide have been recognized by the NCQA in areas of diabetes care, cardiovascular care, back pain care, and other preventive and chronic care practices.¹⁴ To earn Level 2 or Level 3 recognition (Level 3 is the most distinguished), providers must earn satisfactory scores on the following items:¹⁵

- 1) Has written standards for patient access and patient communication
- 2) Uses data to show it meets its standards for patient access and communication
- 3) Uses paper or electronic-based charting tools to organize clinical information
- 4) Uses data to identify important diagnoses and conditions in practice
- 5) Adopts and implements evidence-based guidelines in three categories
- 6) Actively supports patient self-management

¹² National Committee for Quality Assurance (NCQA). The PPC-PCMH Fact Sheet. NCQA: Washington, DC; 2010; Available at: <http://www.ncqa.org/tabid/631/Default.aspx>

¹³ Ibid.

¹⁴ Ibid.

¹⁵ National Committee for Quality Assurance. PPC-PCMH Content and Scoring Summary. NCQA: Washington, DC; 2010. Available at: <http://www.ncqa.org/tabid/631/Default.aspx>; see note 12.

- 7) Tracks tests and identifies abnormal results systematically
- 8) Tracks referrals using paper-based or electronic system
- 9) Measures clinical and/or service performance by physician or across the practice
- 10) Reports performance across the practice by the physician

Another useful tool is the *Building Your Medical Home* toolkit,¹⁶ a comprehensive educational package designed for providers working with patients in a pediatric setting. Released in July 2009 by the AAP and National Center for Medical Home Implementation, the toolkit is available for free online (<http://www.pediatricmedhome.org/>) and designed to meet the NCQA standards. It includes a clinical care information checklist (i.e., Do you have a current list of ICD9 codes? Growth charts plotting head, weight, and head circumference? A template for age appropriate risk factors, etc.), practice performance measures, information on improving care coordination for families, strategies for children with special health care needs, and payment and finance models. Although it is aligned with the NCQA standards, this model places emphasis on a patient- and family-centered perspective, which some critics believe the NCQA standards fail to adequately reflect.¹⁷

Children and Youth with Special Health Care Needs

Families of children and youth with special health care needs (CYSHCN) may be particularly well served inside the family-centered medical home model, where they can develop an ongoing relationship with a pediatrician, family physician, or pediatric nurse who can provide a home base for care.¹⁸ Through a process of shared decision making with the parent, the child's first-contact physician can ensure the child receives proper immunizations and screenings, finds community resources and referral services, and receives support for school-related academic and behavioral issues.¹⁹

Due to the chronic and complicated nature of these children's health care needs, the medical home may also be a way to reduce costs. National data show that roughly 15% of all children have special health care needs, yet account for 80% of pediatric health care expenditures;²⁰ and a report of the National Center for Medical Home Implementation lists reduced ER visits, reduced hospitalization, reduced duplication of tests/services, and

¹⁶ American Academy of Pediatrics. *Building Your Medical Home*. July 2009. Available at: www.medhome.org

¹⁷ Kuzal AJ, Skoch EM. Achieving a patient-centered medical home as determined by the NCQA—at what cost and to what purpose? *Ann Fam Med*. 2009; 7:85-86; Malouin RA, Starfield B, Sepulveda MJ. Evaluating the tools used to assess the medical home. *Manag Care*. 2009; 18:44-48.

¹⁸ Homer CJ, Klatka K, Romm D, et al. A review of the evidence for the medical home for children with special health care needs. *Pediatrics*. 2008; 122:e922-e937.

¹⁹ New England Serve. *The Medical Home Partnership: Building a Home Base for Your Child with Special Health Care Needs* (2nd Edition, 2006). Available at: http://www.neserve.org/neserve/med_hm.html

²⁰ South Carolina State Medical Home Team. *A Provider's Introduction to Strengthening Medical Homes for Children with Special Needs*. Available at: www.medhome.org.

reduced caregiver lost work days as key program evaluation goals for this growing population.²¹ The Medical Home Index, found in the online *Building Your Medical Home* toolkit, is a validated, self-assessment and classification tool designed to evaluate how well a practice conforms to current medical home standards for children with special health care needs.²²

Pediatric and primary care teams such as the Illinois Children's Healthcare Foundation may be uniquely positioned to take advantage of federal funding for the creation of medical homes by bringing proposals to state Medicaid or public health agencies. Under Section 3502 of the Patient Protection and Affordable Care Act, grants are available to eligible entities who establish community-based, interdisciplinary health teams to support primary care providers (medical specialists, nurses, social workers, behavioral and mental health specialists) in creating medical homes within a given hospital service area.²³ A Vermont model, the Blueprint for Health, is one example worthy of study.²⁴ The grants provide capitated payments to providers who meet the following criteria:²⁵

- Submit plans for achieving long-term financial sustainability within three years
- Submit plans for integrating prevention initiatives, patient education, and care management
- Create an interdisciplinary health team that meets Health and Human Services standards
- Provide services to eligible patients with chronic conditions.

Illinois Medical Home Initiatives

The Illinois Chapter of the American Academy of Pediatrics (ICAAP) currently operates three medical home initiatives, which apply a special focus on improving services for children and youth with special health care needs.²⁶ Funded by the Maternal and Child Health Bureau, the Chicago Community Trust, and the Michael Reese Health Trust, these programs assist physicians, primary care practices, and community and state agencies across the state in building and enhancing the performance of medical home models.

In a manner consistent with national AAP guidelines, the Building Community-Based Medical Homes for Children program provides free medical home quality improvement support to practices, with the aim of providing preventive care and acute care and chronic care management in a coordinated, family-centered manner.²⁷ The program offers training in care coordination and assessment, as well as instruction on how to earn NCQA

²¹ See note 14.

²² Ibid.

²³ See note 4.

²⁴ See note 5.

²⁵ See note 4.

²⁶ American Academy of Pediatrics Illinois Chapter. *Medical Home Initiatives*. Available at: <http://illinoisAAP.org/projects/medical-home/>

²⁷ Ibid.

recognition and receive increased reimbursement through the Division of Specialized Care for Children (DSCC) at the University of Illinois at Chicago.

A second ICAAP program, Coordinating Care Between Early Intervention and the Primary Care Medical Home, strives to improve care coordination and referral services for children who screen positive for developmental delays.²⁸ In many Illinois communities, children eligible for early intervention services do not receive needed care because of a lack of communication between primary care practices, early intervention sites, and families. This program aims to bridge that gap.

Finally, in a joint program funded through a 3-year grant from the US Maternal and Child Health Bureau, ICAAP has teamed with DSCC, in an effort to improve access to high quality, coordinated, community-based services for children and youth with special health care needs.²⁹ A key focus of the grant is to train pediatricians, family physicians, and their staff in transitioning youth with special health care needs into the adult care system by improving their readiness and ability to access adult services. In a one-year pilot running from September 2010 to October 2011, training and curricula will be developed by experts across three fields: (1) pediatricians and family providers, (2) adult-oriented health care providers, and (3) youth and family care specialists. Evaluation from the pilot sites will help improve the curriculum prior to applying for American Board of Pediatrics quality improvement Part IV Maintenance of Certification credit.

Challenges and Opportunities

Nevertheless, real barriers exist to the provision of a medical home for children and youth with special needs, not the least of which is finding reimbursement for the type of enhanced care coordination recommended in the PPC-PCMH model.³⁰ Lack of empirical evidence regarding the real costs and benefits of instituting the medical home is another concern; and there is disagreement among primary care professionals as to how to measure aspects of the medical home such as care coordination and service continuity.³¹

In a 2010 report published by the National Center for Medical Home Implementation,³² Michigan State University researchers Rebecca Malouin and Sarah Mertin cite numerous historical obstacles to the creation of a medical home from the pediatrician's perspective, including, "a lack of interest by some pediatricians in providing coordinated care for CYSHCN, poor coordination with tertiary care centers and medical specialists and surgical specialists, a poor relationship with the educational system, the pediatrician's loss of income for coordinated care, the pediatrician's loss of power in the relationship when providing family-centered care, and concerns about the spread of misinformation

²⁸ Ibid.

²⁹ Ibid.

³⁰ Safety Net Medical Home Initiative. Bailit M, Phillips K, Long A. *Paying for the Medical Home: Payment Models to Support Patient-Centered Medical Home Transformation in the Safety Net*. Seattle, WA: Bailit Health Purchasing and Qualis Health, October 2010.

³¹ See note 2.

³² Ibid.

through parent support networks.”³³ A more current barrier may be that physicians in primary care practices are not trained to provide care coordination and do not have the information technology tools to undertake it successfully.³⁴

Hospitals also are likely to feel threatened by PCMH models. One of the outcomes in pilot programs is a reduction in hospital use, and enhanced federal grant funding may represent a shift away from the traditional fee-for-service payment structure.³⁵ More than that, hospital staff and specialists may be aggrieved to play a supportive role to the primary care physician, who will assume the lead role in coordinating patient care. In the private sector, the focus on technology implementation and the challenge of coordinating multiple providers may lead to a deterioration in care, at least in the short term. In a national pilot program, when TransforMED implemented a change facilitator, economic consultations, health IT and quality improvement training, patient ratings declined on 4 important measures.³⁶ Finally, some patients may be reluctant to embrace a “gatekeeper” approach, where the primary care physician is the chief decision maker, orchestrating all aspects of care.³⁷

Medical home models are effective in cost reduction when coordinated by large, privately funded insurance programs. In a pilot program, Group Health, which provides insurance and care to 500,000 residents in the Pacific Northwest, implemented PCMH at a Seattle area clinic.³⁸ The program invested \$6 more per patient per year and, in the two-year trial, reduced the patients in a single doctor’s care from 2,300 to 1,800.³⁹ In addition, the program reduced emergency, specialty, and hospitalization costs and improved performance on several quality measures. According to one assessment, Group Health generated a return of \$1.50 for every \$1 invested.⁴⁰

Successful implementation of the medical home has also occurred in state programs aimed at assisting private pediatric and family practices in serving Medicaid patients and low-income children. The Colorado Children’s Healthcare Access Program, for instance, worked with private practices in Denver to ensure enhanced Medicaid payments in exchange for coordinated care, a resource hotline, preventive and support services, and Medicaid billing assistance.⁴¹ The pilot program for 7,000 children led to higher immunization rates, lower emergency room visits, increased preventive care visits, and reduced Medicaid costs in affiliated practices.⁴² As of 2010, the program includes 116

³³ Sia CC, Peter MI. Physician involvement strategies to promote the medical home. *Pediatrics*. 1990; 85:128-30; See note 2.

³⁴ See note 9, Keckley and Underwood.

³⁵ See note 4.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*; see note 7.

⁴¹ See note 4.

⁴² *Ibid.*

practices and 405 providers, representing 93 percent of private pediatric practices and pediatricians in Colorado.⁴³

A similar program in the Midwest, the Michigan Children's Healthcare Access Program (MCHAP), has leveraged state funds to organize community-based care coordination, supportive services, and family provider education. As a result of these efforts, MCHAP has reported lower emergency room use and inpatient use among low-income children in Grand Rapids and surrounding Kent County.⁴⁴

The Survival of the Small Practice

However the question remains as to the efficacy of the medical home model for small pediatric and family practices, particularly those that operate independently with little state funding and without a large network of providers to deliver coordinated care. The influx of high-risk patients may be especially difficult for small practices accustomed to providing predictable care and treatment in routine office visits. For the patient-centered medical home to be successful, sustainable, payment reform must reward cost effective, first-contact primary care and support medical home costs not ordinarily reimbursed.⁴⁵

Under the health reform law, Medicare and Medicaid will both have demonstration programs for "bundled payment" structures—a middle ground between fee-for-service and global payment, which could decrease the popularity of FFS on the state and national level.⁴⁶ Unlike FFS, where fees are accrued for each service performed, bundled payments require a single payment for all medical procedures related to a treatment or condition. As a result, they may span multiple providers in multiple settings and put providers at financial risk for the cost of services for a particular treatment as well as costs associated with preventable complications.⁴⁷

Currently, there is a strong push toward performance-based payments, such as global payment or shared savings plans, which bundle payment at the patient level and assign pre-set dollar amounts for the care received during a time period. Designed to control costs, promote coordinated care, and reduce unnecessary services, performance-based plans place providers at some insurance risk. Metrics that assess health care access, patient experience, and clinical quality and efficiency may work to the advantage of community health centers or private practices with a large patient population, however they are likely to present problems for small practices without strong data management tools and the resources to assume the insurance risks.⁴⁸

Regardless of your view of the medical home, the reality is the healthcare reform package (The Reconciliation Act of 2010 and the Patient Protection Affordable Care Act) is likely to change the delivery of healthcare financing to reward providers who embrace such a

⁴³ Ibid.

⁴⁴ See note 4.

⁴⁵ See note 26.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

model.⁴⁹ For community health centers and independent practices that rely on federal funding for survival, this may make conversion to the PCMH model a necessity.

A report of the Safety Net Medical Home Initiative⁵⁰ recommends that health centers seek PPC-PCMH recognition or comparable state recognition for medical home achievement. In addition, health centers are advised to expand their capacity to accommodate an increase in Medicaid enrollment and an infusion of patients buying insurance coverage through new health exchanges. Lobbying state-level stakeholders may also be important. Section 2703 of the Patient Protection Affordable Care Act offers 90% matching funds to states that pursue the medical home option for Medicaid enrollees with “two chronic conditions, or one chronic condition and at risk of a second, or one serious and persistent mental health condition.”⁵¹ The Illinois Children’s Healthcare Foundation may be well positioned to take advantages of the pending changes by converting to a cost-effective, patient-centered medical home whose benefits to high-risk children can be demonstrated with empirical evidence.

⁴⁹ See note 5.

⁵⁰ Ibid.

⁵¹ See note 5.