

Will the Patient-Centered Medical Home Transform the Delivery of Health Care?

Timely Analysis of Immediate Health Policy Issues

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What Is a Medical Home?

The medical home is a model for delivering enhanced primary care that has been gathering momentum for several years and is now being tested in dozens of pilots nationwide, including as part of Medicare and Medicaid. The model is likely to gain even greater prominence in 2012, when accountable care organizations (ACOs) begin operating, since many believe that primary care practices belonging to an ACO will need to adopt at least some aspects of the medical home model to manage the care of their ACO's patient panel effectively enough to generate shared savings.¹

Despite all of the interest in the medical home, people disagree over how to define the concept and what components are most likely to produce the desired results—not just for vanguard practices, but also for more typical primary care practices. This report provides a status update on the medical home and offers observations for policy-makers about expectations for success of the model.

Also known as the *patient-centered* medical home,² the model attempts to orient doctors' offices more to patients' needs, such as by making it easier for patients to access care (through extended hours and greater use of phone calls and e-mails) and by more actively coordinating with other providers to manage all aspects of a patient's care. The model also

typically involves relying more on a team-based approach to delivering care to maximize efficiency and take advantage of the different team members' professional skills. The rationale for adopting this model—which often goes hand in hand with providing enhanced reimbursement rates to primary care clinicians—is that it will increase quality and reduce costs. It is also proposed as a way to reinvigorate primary care and attract more physicians to the field by increasing reimbursement rates and professional prestige.

Interest in the medical home is growing rapidly, with dozens of demonstrations underway and thousands of practices currently recognized as medical homes. But there is not broad agreement on which care processes or practice capabilities need to be in place for a practice to be considered a medical home, evidenced by the proliferation of different medical home definitions and accreditation standards advanced in recent years. For example, these definitions and standards differ on how quickly practices must return patients' phone calls after hours, whether an electronic health record (EHR) is needed to facilitate care coordination, how to execute proactive population management, and how quality should be measured and improved.

The closest thing to an agreed-upon definition is a set of principles jointly released by four primary care physician specialty societies in 2007.

(See box on following page.) These were subsequently endorsed by 19 more physician organizations, including the American Medical Association and the Patient-Centered Primary Care Collaborative, a multistakeholder medical home advocacy group with hundreds of organizational members.³

Part of the reason for the lack of agreement on how to define the medical home is that there is not yet rigorous evidence available about which practice capabilities and processes actually improve the quality of care and reduce costs—though evidence does support the use of some of them, and there is evidence of positive benefits associated with primary care more generally.⁴ There is also a lack of evidence on whether the medical home model makes sense for *all types* of patients or a subset of patients, such as high-risk patients with multiple chronic diseases.

The various medical home definitions reflect not only a lack of rigorous evidence on what the optimal practice capabilities and care processes are, but a lack of agreement on key components of the model. For example, the joint principles have aroused some controversy in that they require a *physician* to lead the medical home, as opposed to a nurse practitioner or physician assistant (which is allowed in states with a more permissive scope of practice for nurses). In the four years since these principles were



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first released, there has been growing acceptance of these mid-level medical professionals as leaders of medical homes,⁵ especially in rural areas where physicians are in short supply.⁶

Another issue with how the medical home is defined and recognized involves whether the medical home model should be adopted not only by primary care providers but also by specialists. Already, the model has been adopted by some oncologists,⁷ who—while not providing primary care *per se*—can be thought of as providing principal care to their patients for their cancer, if not for the full range of their health problems. Some may wonder whether the expectations of the medical home should be expectations for *all* types of practices. New or revised payment policies could incentivize activities articulated in the model—regardless of whether a practice is officially recognized as a medical home—by reimbursing physicians for time spent communicating with other providers to coordinate patients’ care, or enhancing payment rates for care delivered outside traditional business hours. However, if the model ends up being adopted widely by primary care physicians *and* specialists, the goal of using the medical home as a vehicle to boost the reimbursement levels and professional stature of primary care might be compromised.

Lacking agreement on what constitutes the model and evidence to help settle these disputes, medical home definitions continue to be put forth—by health policy scholars in journal articles; health plans and health care systems in demonstrations; the federal Agency for Healthcare Research and Quality (AHRQ), which does not require physicians to lead medical homes;⁸

One Definition of a Medical Home

Although there are many definitions of the medical home, the most widely endorsed one was articulated by four physician societies in 2007, with refinements in 2011. According to them, practices that engage in the following set of activities are a medical home:

- **Enhanced access to care** – The practice offers same-day appointments, expanded hours and new options for communicating with clinicians (e.g., e-mail).
- **Care continuity** – Patients see the same personal physician each time they visit.
- **Practice-based team care** – A team of individuals at the practice level, including non-physicians, work together to manage patients’ care.
- **Comprehensive care** – The practice provides or arranges for all of a patient’s health care needs (e.g., acute and chronic care, preventive screening, end of life care, etc.).
- **Coordinated care** – The practice monitors all other care received by their patients (e.g., from specialists, hospitals, home health agencies, nursing homes, etc.).
- **Population management** – The practice proactively reaches out to patients with chronic diseases to make sure symptoms are under control.
- **Patient self-management** – The practice teaches patients techniques to manage their chronic conditions on a day-to-day basis.
- **Health IT** – The practice generates and exchanges electronic health information to deliver care, measure performance, and communicate with providers and patients.
- **Evidence-based** – Evidence-based best practices and clinical decision support tools guide decision-making.
- **Care plans** – The practice strives to help patients reach goals defined in partnership with patients and their families.
- **Patient-centered care** – Care is based on the needs and preferences of patients and their families.
- **Shared decision-making** – Patients actively participate in selecting treatment options.
- **Cultural competency** – The practice ensures information is conveyed to patients in a language and method they understand, taking cultural differences into account.
- **Quality measurement and improvement** – The physician is held accountable for performance.
- **Patient feedback** – The practice solicits feedback from patients to ensure expectations are being met and to facilitate practice quality improvement.
- **New payment systems** – The practice receives enhanced reimbursement.

Source: Authors’ summary of “Joint Principles of the PCMH” and “Guidelines for PCMH Recognition and Accreditation Programs” released by the AAFP, AAP, ACP, and AOA in 2007 and 2011, respectively. (See endnotes for full citations.)

and others. If anything, the recent proliferation of medical home definitions and survey instruments suggests a continuing lack of consensus about the model.

Where Did the Concept Come From?

The term “medical home” was first coined in a book published by the American Academy of Pediatrics (AAP) in 1967. Under that model, a pediatrician’s practice was considered the central keeper of medical records—and to a lesser extent, coordinator of care—for children with special health care needs.⁹ It was not until 2004, when the American Academy of Family Physicians (AAFP) called for every American to have a medical home, that the model was proposed for adult patient populations.¹⁰ The concept was quickly endorsed by the American College of Physicians (ACP),¹¹ which represents internists. Then, in 2007 these three societies and the American Osteopathic Academy (AOA) came together to issue their influential joint principles, mentioned above.¹²

How Do You Measure “Medical Homeness”?

There are dozens of detailed survey instruments that can be used to determine whether practices meet a set of standards to be considered a medical home. These instruments each assess practices against a different checklist of practice capabilities and activities and have been developed for different purposes. Some are aimed at practices wanting to assess themselves for self-improvement; others are mainly for researchers to measure practices’ medical home capacities and correlate them to

patient outcomes; and still others are for practices seeking formal recognition as a medical home to qualify for enhanced reimbursement under a pilot. The most frequently used instruments are designed to be completed by practices, but there is growing interest in also surveying patients and their families—particularly to begin to assess whether practices are “patient-centered.”¹³

Up until this point, the most commonly used medical home assessment instruments have been developed by large accrediting organizations and health insurance plans administering pilots in specific geographic areas. So far, the industry leader among the national accrediting organizations, which offer what might be called “off the shelf” medical home recognition programs, has been the National Committee for Quality Assurance (NCQA), which was able to quickly adapt an existing accreditation program into medical home standards¹⁴ when the four physician societies released their joint principles in 2007. Known as the Physician Practice Connections – Patient-Centered Medical Home standards, NCQA’s initial recognition program was available in 2008 and has been used by many practices and payers in various medical home initiatives nationwide. (See map on following page.) NCQA updated these standards in early 2011 to incorporate suggestions for changes as well as an evolving common understanding of the medical home.¹⁵

Although NCQA has enjoyed first mover’s advantage, in the past year other national accrediting organizations have entered the medical home recognition field, including the Joint Commission, the

Accreditation Association for Ambulatory Health Care (AAAHC) and the Utilization Review Accreditation Committee (URAC). Consulting organizations are also cropping up—the best-known of which may be the AAFP’s TransforMED—to help practices make the changes necessary to meet medical home recognition standards. Since these national accrediting organizations have pre-existing relationships with different kinds of health care organizations (e.g., hospitals, doctors’ offices, health plans), the market for medical home recognition programs may end up being divided by the type of entity seeking accreditation. For example, private health insurance companies, which are accustomed to working with NCQA, often require the use of NCQA’s medical home recognition program in their medical home efforts, whereas hospitals, which are accustomed to being accredited by the Joint Commission, may gravitate toward that organization’s new recognition program.

Although one might expect patient-centeredness to receive a lot of attention in medical home recognition standards, there has been very little given to date. The orientation of recognition activities up until this point has been toward measuring practice capabilities, with comparatively little attention to assessing whether care is patient-centered, which has tended to be measured using surveys to assess patients’ perceptions of the care they receive.

But this is changing. Recently, recognition tools have made inroads into better measuring patient-centeredness. In the past year, NCQA has announced that starting in 2012 it will award practices extra

“distinction” if they voluntarily survey their patients on their care experience, and the Joint Commission will *require* practices to collect this data to obtain medical home recognition. Although these organizations are not yet using patients’ responses on patient experience surveys to assess practices’ adherence to medical home standards, accrediting organizations may do so in the future. Already, the Centers for Medicare and Medicaid Services (CMS) has proposed basing payments to ACOs in part on patient experience survey results, and has signaled an interest in getting serious about promoting patient-centeredness by listing eight patient-centeredness capabilities that ACOs will need to possess to participate in Medicare’s new ACO program.¹⁶

In the current environment, the

diversity of medical home recognition instruments is understandable and probably useful to encouraging experimentation, competition and innovation in both standards setting and model development. While some elements of the medical home model are well-grounded in the literature, there is not yet a strong evidence base about whether the aggregate package works as intended and which components of the model are most important. Nor have there been rigorous head-to-head comparisons of these instruments to assess their relative advantages and disadvantages.

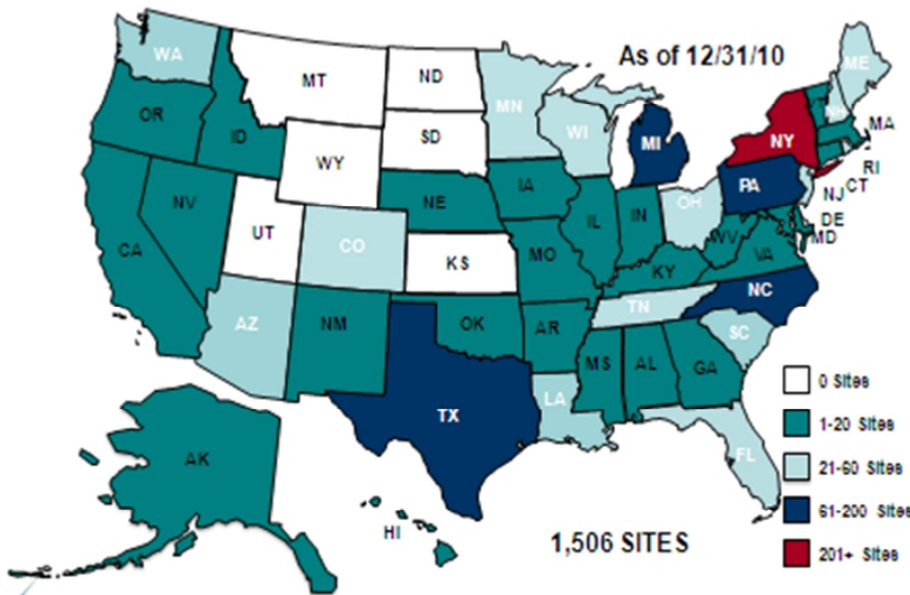
For this reason, a key decision facing health insurance plans—including public plans like Medicare and Medicaid—is how much to rely on these recognition instruments, which focus on determining whether

processes are in place, and how much to rely on measuring performance. Sponsors of medical home pilots have taken different positions on this question. Some are using highly specified, somewhat burdensome standards to qualify practices for entry into their initiatives and determine payment rates.¹⁷ Others are holding practices to very basic entry criteria but reserving extra payments for practices that perform well against measures of quality and cost or utilization. But this approach presents its own problems, since there is a lack of agreement on the adequacy of current—and potential—performance measures, and reporting performance measures can be burdensome for practices.¹⁸

What Does It Cost to Become a Medical Home?

Although many believe the up-front and ongoing maintenance costs are substantial,¹⁹ few studies have documented how the decision to become a medical home affects practices’ finances, and the studies that have been done have produced very different findings. One study of the costs associated with becoming a medical home for an individual primary care physician estimated approximately \$100,000 would be needed initially, followed by a \$150,000 increase in ongoing expenses.²⁰ But a study of costs actually incurred by NCQA-recognized practices found no increase in ongoing practice expenses, aside from a few extra thousand dollars per year for health IT.²¹ Meanwhile, a study that looked at both costs *and* revenues estimated that a physician in a five-physician family practice that adopted a medical home-like model²² could earn 26 percent more while working

Number of Sites Recognized as a Medical Home by NCQA



Source: NCQA. “Standards for Patient-Centered Medical Home (PCMH) 2011.” <https://inetshop01.pub.ncqa.org/publications/product.asp?dept%5Fid=2&pf%5Fid=30004%2D301%2D11>

the same number of hours under the same payment policies.²³

Several factors complicate attempts to estimate the cost to practices of transforming into or maintaining a medical home. First, practices are adopting different medical home models that vary on many dimensions. For example, does the model being implemented require hiring new staff to help manage and coordinate care? Do practices have to buy a new suite of health IT tools? An even greater barrier to estimating net costs is that practices begin their transformation to a medical home from different starting points. Without realizing it, some practices may already be halfway there when they decide to become a medical home, while others may have further to go. Finally, estimates are difficult to generate since so many types of costs are in play, such as the direct costs of hiring new staff or buying new health IT systems, indirect costs like increased overhead costs, and the opportunity costs of providers spending time learning the new medical home model. Furthermore, practices vary widely in the additional revenue they are able to generate as a medical home.²⁴

Despite the lack of good estimates on the direct and indirect costs of becoming a medical home, many believe these expenses to be significant. Just applying for *recognition* as a medical home—after the hard work of practice transformation is complete—can cost thousands of dollars and take several months of staff time.²⁵ This may partly explain why large primary care practices—which are likely to be in a better position to provide the capital to fund these costs than smaller practices—have succeeded in adopting more features of the

medical home model than smaller practices so far.²⁶

Capital may also be easier to come by for practices that are part of integrated delivery systems, such as Geisinger Health System in central Pennsylvania and Group Health Cooperative in Seattle. These are networks of providers that directly deliver or coordinate the full continuum of services that a community needs and are accountable to payers—both clinically and fiscally—for the clinical outcomes, health status and costs of care of their patients.²⁷ Since these systems benefit when their patients stay out of the hospital, they may have a financial incentive to fund the up-front investment needed to transform their primary care practices into medical homes. Integrated delivery systems are one type of organization that could serve as ACOs, which will also have incentives to invest in primary care to keep their patients out of the hospital.²⁸

If the medical home model works and primary care practices are able to keep patients healthy and reduce their per-capita expenses, then investments in medical home infrastructure may pay dividends to public and private plans sponsoring medical home initiatives and their enrollees. However, since the model's return on investment is still unproven, such investments will have to be based for the time being on faith and enthusiasm—and some anecdotal success stories.

How Are Medical Homes Paid?

One of the primary reasons for a practice to become a medical home—aside from an altruistic desire to

provide better care—is to qualify for the enhanced reimbursement rates that are often available to practices participating in medical home pilots. These enhanced payments can take a variety of forms but generally fall into two categories: practices can either charge *higher rates for existing fees* or receive *new types of payments* entirely. These fee types—which can be mixed and matched in a variety of combinations—are described below.²⁹

Higher Rates for Existing Fees

- Increase fee-for-service payments for office visits to practices that are recognized as medical homes.

New Types of Payments

- Reimburse health professionals for specific activities associated with the medical home, such as time spent communicating with other providers to coordinate patients' care.
- Pay practices a lump sum fee per patient per month to pay for all activities medical homes are expected to engage in (e.g., care coordination, proactive population management of patients with chronic diseases, e-mailing patients, etc.). (Note that practices would still be reimbursed on a fee-for-service basis for traditional services provided to patients or could be reimbursed using discounted fee-for-service rates if a budget-neutral approach is desired.)
- Pay practices a larger capitated fee per patient to pay for all services the patient receives—both newly-reimbursable medical home activities and traditional health care services.

How Doctors Want to Be Paid for Providing a Medical Home

Four physician societies issued joint principles they hoped would underlie any new medical home payment model in 2007:

- Reflect the value of care management work that falls outside the face-to-face visit.
- Pay for care coordination within a practice and between providers.
- Support adoption and use of health IT for quality improvement.
- Support the provision of e-mail and telephone consultation.
- Recognize the value of remote monitoring of clinical data using technology.
- Maintain payment levels for face-to-face visits, despite the new payments listed above.
- Recognize case mix differences in the patient populations served by practices.
- Allow medical homes to share in savings from reduced hospitalizations generated by their active management of their patients' care.
- Allow for quality bonus payments for achieving measurable and continuous quality improvements.

Source: Authors' summary of "Joint Principles of the PCMH" released by the AAFP, AAP, ACP and AOA in 2007. (See endnotes for full citations.)

- Pay practices bonuses if they meet targets for a suite of quality (and possibly utilization or efficiency) measures that attempt to assess performance.
- Pay practices a share of any savings they generate relative to the costs that their patients would have otherwise been expected to generate, based on past trends. (This model is being used in ACOs.)

The most common combination used in medical home pilots is to pay practices their regular fee-for-service payment rates for traditional services, plus a monthly care coordination fee per patient to cover medical home activities not easily reimbursed under current fee schedules, as well as performance bonuses if quality measure targets are met.³⁰ Although there are similarities in the payment approaches used, the payment amounts physicians receive under medical home pilots vary widely—from an additional \$720 per year to more than \$91,000, according to a recent analysis of 26 pilots.³¹

Regardless of the payment approach used, physicians and insurers seem to agree that some additional payment is needed to support practices that offer their patients a medical home. For their part, health insurers have sponsored many medical home pilots that offer providers enhanced payment, but insurers usually require practices to demonstrate that they possess enhanced capabilities that should produce higher value or that the extra payments they receive are helping medical homes produce savings for insurers elsewhere in the health care system, such as by reducing hospital admissions. At the end of the day, insurers want to know they are getting something extra for their additional funding and not simply paying higher prices for the same care.

Who Is Sponsoring Medical Home Pilots?

Both public and private health insurance plans are sponsoring pilots to test the medical home model and together they expect to reach more

than 13 million patients within the next few years.³² Typically pilots are sponsored by a health plan that offers practices enhanced reimbursement for its enrollees, which may make up 30 percent to 40 percent of participating practices' patient panels³³—but the number of multipayer pilots is increasing.

Private health insurance plans have been very active and have generally favored using NCQA's medical home recognition standards to determine the eligibility of practices to participate in their numerous pilots.³⁴ However, there are some notable exceptions. For example, Blue Cross Blue Shield of Michigan developed its own standards and is currently sponsoring one of the largest privately sponsored medical home initiatives in the country, with more than 1,800 physicians recognized as medical home providers under its criteria and thousands more working toward gaining this designation.³⁵

The Patient-Centered Primary Care Collaborative, a multistakeholder

medical home advocacy group, maintains a map of public and private medical home pilots in the United States and at last count reported 27 pilots in 18 states,³⁶ though the true number is likely higher. This umbrella group represents hundreds of organizations that support the medical home concept, including many consumer groups.³⁷ Some of these consumer groups have taken a special interest in the concept, such as the National Partnership for Women and Families, which has released a comparison of different states' medical home efforts.³⁸ The American Academy of Pediatrics' National Center for Medical Home Implementation³⁹ maintains a similar map for pediatric medical home pilots, which also includes links to state-specific entities, publications and other resources.⁴⁰

The Children's Health Insurance Program (CHIP) and Medicaid programs in many states are also testing the medical home model, particularly in pediatric populations. The National Academy for State Health Policy (NASHP) has been tracking these efforts and maintains an online map showing that 39 states are currently pursuing medical home efforts in their CHIP or Medicaid programs,⁴¹ though these efforts vary in terms of the number of practices involved and how far along they are in implementation. Compared to private plans, Medicaid and CHIP-sponsored pilots have been less inclined to use the NCQA medical home recognition standards and have instead opted to develop their own standards and recognition process. According to the Medicaid officials we interviewed, some reasons many have chosen not to use NCQA's 2008 standards include: the cost, which can be thousands of dollars per practice, depending on the size; the

length of time it takes practices to upload all of the required documentation into NCQA's provider survey tool, which can run from weeks to months; the heavy focus on health IT, which would disqualify many otherwise-capable practices that lack such technology; the requirement that *physicians* lead practices, which NCQA has only recently dropped; NCQA's predominant use in *adult* as opposed to *pediatric* medical home initiatives; and skepticism about whether the set of processes NCQA measures will actually lead to improved outcomes.

Medicare, the nation's largest health plan, has spent several years laying the groundwork to test the medical home model among its beneficiaries. After preparing to launch a medical home demonstration authorized in 2006 and then choosing not to move forward,⁴² Medicare announced that it was proceeding with a separate effort in 2010 called the Multi-payer Advanced Primary Care Practice Demonstration. This demonstration will allow up to 1 million Medicare beneficiaries to receive enhanced services through existing multipayer medical home pilots in eight states.⁴³ The Medicare program has also announced a similar multipayer demonstration targeted at 200,000 low-income beneficiaries served by Federally Qualified Health Centers.⁴⁴ This demonstration builds on HRSA's prior efforts in this area, including its offer to pay recognition fees on behalf of health centers interested in becoming NCQA-recognized medical homes.⁴⁵

Although it is only in the early stages right now, the largest medical home effort in the country is likely to be an initiative called Patient Aligned Care Teams, which is being sponsored by the U.S. Department of Veterans

Affairs (VA). The VA is so confident in this model, it has decided to adopt it in *all* of its health care facilities in the coming years, potentially reaching 5 million veterans.⁴⁶

The U.S. military has also shown strong interest in the medical home model, issuing a policy memorandum in 2009 directing all military treatment facilities to implement the model.⁴⁷ Since then, medical home efforts using a variety of names have been advanced and expanded under each of the three military services. The Air Force's Family Health Initiative was implemented in 13 practices in 2009, another 20 in 2010, and is scheduled to go Air Force-wide by the end of 2011.⁴⁸ The Navy, which began implementing a medical home pilot⁴⁹ in 2008 at the National Naval Medical Center in Bethesda, Md., is now rolling out a larger-scale model known as the Medical Home Port, with plans to incorporate the concept into Navy Medicine's entire operation.⁵⁰ Finally, the Army's Community Based Medical Homes are being implemented in 17 clinics,⁵¹ with the goal of offering medical homes service-wide by 2016.⁵²

As of January 2011, the TRICARE military health plan had enrolled 655,000 of its 9.5 million beneficiaries in a medical home, with the goal of expanding to 2 million by the end of 2011.⁵³ The military is working on guidelines for consistent medical home implementation across the services,⁵⁴ and events such as the annual Tri-Service Medical Home Summit⁵⁵ are aimed at advancing understanding and cooperation between military health leadership, other federal agencies, and civilian organizations like NCQA, professional societies, and private health care organizations.

Other organizations have supported activities that facilitate the adoption of the medical home model. Beyond those already mentioned, key groups include private foundations such as the Robert Wood Johnson Foundation (RWJF) and the Commonwealth Fund. RWJF has funded policy briefs, papers and other research,⁵⁶ as well as pilots, peer learning networks,⁵⁷ technical assistance⁵⁸ and other activities.⁵⁹ The Commonwealth Fund has also been a medical home supporter, funding a variety of research and policy articles,⁶⁰ evaluations of medical home pilots,⁶¹ technical assistance to practices (including through NASHP),⁶² and the refinement of existing medical home assessment instruments,⁶³ among other activities.

Do Medical Homes Actually Work?

Overall, there is a paucity of good studies to permit a satisfactory assessment of what medical homes can achieve.

At best, there is supportive evidence for some components of the medical home.⁶⁴ The few peer-reviewed articles assessing medical home efforts suggest some improvements in patient access, the quality of preventive care and care processes, and overall cost savings resulting from reductions in emergency department and inpatient utilization.⁶⁵ A few other studies have reported improvements in patient access and a better work environment for clinic staff.

Evaluations that document impressive success stories and use research designs that permit a valid judgment that the success was real⁶⁶ demonstrate the *efficacy* of the medical home concept in controlled

settings, though the *effectiveness* of the model when adopted more broadly remains an open question. As with other good ideas, it may be difficult to spread an initiative that works well in certain environments to the broader health care system. So-called “first movers” and “early adopters” may be a vanguard without followers if the broader implementation lacks a straightforward business case or faces practice cultures that are resistant to change. Even more than in most areas of health delivery change, because of the enthusiasm that some have for the medical home model, anecdotal successes may reflect self-selection bias.⁶⁷

In a recent essay, Timothy Hoff cautioned, “the danger is that ... unreliable information gets used as the basis for concluding that all PCPs [primary care physicians] are gung-ho about the PCMH [patient-centered medical home], and, more important, that they can pull off what is required of them.”⁶⁸ He further cautions not to easily accept assumptions about important things such as the willingness of doctors to successfully transform their practices into medical homes, patients’ to desire for this new model, and payers’ willingness to support the new activities in which medical homes are asked to engage.

Another reason for caution is that not all evaluations have found positive impacts of implementing the medical home model. The country’s first national medical home demonstration—the National Demonstration Project sponsored by the AAFP—ran from 2006 to 2008 and involved 36 practices. Its evaluation found that practice transformation to a medical home can be lengthy and complex—even for highly motivated early adopters.

For example, the evaluation showed that despite implementing many medical home elements, including chronic care management and health IT, and despite being given extensive assistance, two years was not long enough for practices to implement the entire model and change their work processes. Putting discrete medical home components in place was far easier than modifying roles and work patterns, especially when it came to establishing a central role for a multidisciplinary care team—a core component of the medical home model.⁶⁹ And while highly motivated practices made substantial progress in implementing the medical home, doing so slightly *worsened* patient’s perceptions of care, at least in the short term.⁷⁰

Early evaluations also suggest that larger practices, including those embedded in organizations that are potential ACOs, such as multispecialty medical groups and integrated delivery systems, have an easier time making incremental improvements than small practices starting the transformation process *de novo* and often lacking capital and managerial skills to support change.⁷¹ In short, organizations that already meet most of the expectations associated with being a medical home can improve even more through incremental improvements, whereas practices in most need of change may be stuck if they cannot muster the financial and human capital necessary to overhaul their practices.

Close observers of initial medical home efforts have concluded that small practices will not accomplish much by making incremental changes to current ways of doing things, but rather will need to engage in “disruptive innovation” that alters

fundamental care pathways.⁷² Until payment incentives to do so are made permanent, practices may be unlikely to commit to that level of disruption for an unknown fate.

For the medical home field to move forward, obtaining evidence of effectiveness in a variety of practice settings needs to become a priority. But unfortunately, evaluation has not been a central feature of medical home activity so far. A recent review⁷³ of medical home evaluations nationwide found many problems with current efforts:

- Most evaluations (nearly 60 percent) do not have a detailed evaluation plan.
- Evaluations are often conceptualized and funded well after demonstrations and pilots have begun—resulting in less than ideal study designs, methods and data.
- Less than half (38 percent) of demonstrations collect data from a comparison group of practices for evaluation purposes. Instead, the majority of evaluations use pre-post designs, which make it impossible to identify other factors that may account for improvements, such as policy developments and other secular trends.
- Demonstrations vary in the number of practices involved (ranging from 2 to 2,300), the number of physicians participating (from 7 to 6,500), and the number of patients impacted (from 720 to 1.2 million). Smaller demonstrations have a harder time producing results that are statistically reliable.

In addition, the context in which medical homes are being implemented is rapidly changing, making it difficult to tease out whether changes in patient outcomes are a result of the medical home model or other health reform efforts, such as new programs and requirements in the Affordable Care Act or the Recovery Act's financial incentives for providers to adopt and meaningfully use electronic health records. Where and how the medical home fits in with these broader reforms remains to be seen, but these parallel developments complicate the evaluation of medical home initiatives.

In addition to evaluation design issues, researchers are also limited by the design of medical home pilots themselves. One design flaw may be failing to give practices a large enough financial incentive to prompt them to engage in major overhauls in the way they deliver care, given the lack of fee-for-service reimbursement for many activities expected of medical homes, such as counseling patients over the phone or responding to e-mails. A recent assessment of medical home pilots found wide variation in the incremental revenue received per participating physician per year—from \$720 per year at the low end to as much as \$91,146 at the high end, with a median of \$22,834.⁷⁴ It is unclear what the “right” level of financial incentive is, but surely a few hundred dollars per year is not going to cut it.

To help build the evidence for which medical home activities and payment levels produce the best outcomes, a variety of groups are now sponsoring evaluations, including federal agencies (e.g., CMS,⁷⁵ AHRQ⁷⁶ and the VA⁷⁷), state Medicaid programs (e.g., North Carolina⁷⁸), private

health insurance plans (e.g., South Carolina Blue Choice Health Plan⁷⁹), integrated delivery systems (e.g., Geisinger Health System⁸⁰ and Group Health Cooperative⁸¹), physician associations (e.g., AAFP⁸²) and foundations (e.g., the Commonwealth Fund⁸³).

These evaluations are conducted by researchers with varying degrees of independence and resources. As we discuss above, there are gaps in the evidence base about medical homes and significant challenges to carrying out good evaluations. Consequently, whether current evaluation efforts can address these gaps and overcome these challenges is unclear.

Nevertheless, attempts are being made to maximize the quality of evaluations currently underway, such as through the Commonwealth Fund's Patient-Centered Medical Home Evaluators' Collaborative, which has been meeting quarterly since June 2009 to share best practices and align evaluation methods. With a membership of 68 researchers engaged in 20 medical home evaluations, the group has so far issued recommendations for evaluators in two areas: (1) how to measure the cost and utilization effects of the medical home, and (2) the scope and depth of evaluation needed to assess the complex interventions and systems that underlie medical home pilots.⁸⁴

How Does the Health Reform Law Encourage Medical Homes?

As alluded to above, the Affordable Care Act (ACA) includes several provisions that encourage adoption of the medical home model—primarily through new payment policies and demonstrations in Medicare and

Medicaid, as well as new plan options and reporting requirements for private health insurance plans.

The bill includes provisions that:

- ***Implicitly rely on medical homes in ACOs.*** The Affordable Care Act creates a Shared Savings Program for Medicare through which providers can band together to form virtual organizations called ACOs. ACOs are expected to actively manage and coordinate the care of their panel of Medicare fee-for-service beneficiaries, and in return are eligible to share in any savings generated by keeping patients healthy and out of the hospital (P.L. 111-148, Sec. 3022). A similar pediatric ACO program is authorized for Medicaid and CHIP, but only as a five-year demonstration (P.L. 111-148, Sec. 2706). Although these ACO provisions do not explicitly mention medical homes, we believe these provisions have the potential to have the greatest impact on increasing the spread of the medical home model, since many believe that the activities that providers will need to engage in to keep their patients healthy and generate savings for their ACO will consist of many of the key attributes of the medical home.
- ***Test medical homes through the Innovation Center.*** The new Center for Medicare and Medicaid Innovation will test the effectiveness of medical homes—along with many other payment and delivery system reforms—in bringing down costs and increasing quality (P.L. 111-148, Sec. 3021).

- ***Allow Medicaid to cover medical home services.*** States' Medicaid programs now have the option of covering services provided to beneficiaries with certain chronic conditions by "health homes." The federal government will match 90 percent of state funds spent on these services in the first two years and will match at each state's regular Federal Medical Assistance Percentage rate after that. The provision also includes funding for state planning grants and an independent evaluation of the effect of this coverage change (P.L. 111-148, Sec. 2703).
- ***Allow private "medical home plans."*** Qualified health plans are permitted to provide coverage through a primary care medical home plan if it meets certain criteria and coordinates with the qualified health plan (P.L. 111-148, Sec. 10104 amending Sec. 1301).
- ***Require insurers to report whether they cover medical homes.*** The U.S. Department of Health and Human Services (HHS) is required to establish guidelines for payment structures that incentivize various desirable patient outcomes, including through the use of a medical home. Qualified health plans must report to the exchanges through which their policies are sold on any activities undertaken to implement such payment structures (P.L. 111-148, Sec. 1311). Private health insurance plans—in both the group and individual markets—are also required to report annually to their enrollees and HHS on whether they cover services provided through a medical home

(P.L. 111-148, Sec. 1001, Sec. 2717).

The ACA also authorizes, but does not appropriate funding for, several other provisions that encourage the adoption of the medical home model—primarily through grants and contracts to provide technical assistance and training to clinicians.⁸⁵ It will be up to Congress to decide whether to provide annual discretionary appropriations to HRSA and AHRQ for these new activities. If funded, the provisions would allow these agencies to build on current activities. Already, HRSA has supported advisory groups,⁸⁶ conference workshops,⁸⁷ and resources for child-serving practices interested in adopting the model,⁸⁸ including a comparison of pediatric medical home assessment tools⁸⁹ and a map listing resources by state.⁹⁰ Meanwhile, AHRQ has funded research projects,⁹¹ convened an interagency workgroup and launched an informational Web site.⁹²

Will the Medical Home Re-energize Interest in Primary Care?

One reason for the growing interest in the medical home concept could be that it attempts to reinvent and assert new relevance for primary care, which has seen a modest but troubling decrease in the share of physicians entering it over the past few decades,⁹³ leading many policy analysts to believe the country is in the midst of a primary care physician shortage.⁹⁴ Enthusiasm in stemming the tide of physicians choosing specialty care over primary care is in turn driven by research that has found that areas with more primary care physicians have lower mortality rates, even after controlling for

socioeconomic and demographic factors.⁹⁵

Many factors likely explain physicians' gradual shift away from primary care, not least of which is the substantial—and growing—gap in earnings between primary care physicians and specialists. Some also believe the diminishing interest in primary care is a result of an explosion in medical research and accompanying treatment applications and a growing perception that primary care is not as critical or prestigious as other specialties (e.g., cardiologists, oncologists) that build on these newer treatments.⁹⁶

Another theory is that primary care physicians have given up substantive expertise to specialists, as they err more and more on the side of referring patients to specialists instead of treating them directly.⁹⁷ Seen in this light, the medical home concept can be viewed as an attempt to emphasize the key “value-add” that primary care physicians can offer: coordination between all these various specialists. Given the public's orientation to technology and growing preference for experts, it remains to be seen whether the relatively low-tech medical home emphasis on team-based coordination, teaching patient self-management skills, and ensuring access and availability to patients will elevate the perception of primary care.

However, a small but growing number of primary care physicians are moving in a seemingly different direction. Instead of focusing on team-based care and coordination of services delivered by other providers, these physicians are focusing on directly delivering more continuous and comprehensive care. Called variously “concierge medicine,”

“boutique medicine,” and “retainer practices”—because under current insurance payment approaches these practices depend on patients paying a retainer of several thousand dollars extra per year out of their own pockets—these primary care practices feature much more personal attention by physicians. With significantly smaller patient panels, these physicians offer their patients enhanced access and attention through longer office visits and greater availability after hours via cell phone and e-mail. In some cases, physicians even see their patients in the hospital and may resume the role of the attending physician, a role that most primary care physicians have turned over to hospitalists.

The team-based approach to primary care, embodied by the medical home, and the relationship-centered model, embodied by concierge medicine, need not be mutually exclusive. As practices experiment with different variations on the medical home in coming years, they may find they want to adopt elements of both approaches.⁹⁸ Indeed, integral to the success of the Group Health Cooperative medical home demonstration was a significant reduction in the patient panel size that primary care physicians were expected to handle.⁹⁹ In so doing, Group Health was able not only to build on its longstanding commitment to team-based care and responsiveness to patients with urgent medical problems, but to address the concern among physicians of feeling like “hamsters on a treadmill,”¹⁰⁰ with limited time to offer patient-centered care.

Discussion

The patient-centered medical home is a powerful idea that has aroused genuine interest among physicians, payers, and consumer and patient advocacy groups. The broad-based support for the idea points to the perception that patient experiences with the health care system are far less than optimal and in need of fundamental reengineering. But these efforts are complicated by the fact that there is no basic agreement on the priorities for medical homes or a consensus on the essential elements that medical homes must include. Some elements may be desirable but ultimately do not make much of a difference in practice performance. Further, despite its incorporation into the title of the concept, patient-centeredness has not received sufficient attention when putting the concept into operation.

In short, policy-makers need to be cautious about premature adoption of the medical home model, given its early stage of development. As Tim Hoff cautions, “At this early point, we must accept that we do not know all that much about the PCMH [patient-centered medical home] as a concept, much less how it should be implemented and what outcomes to expect.”¹⁰¹ This stage of development calls for empirical work—to get past theoretical medical home prototypes to actual demonstrations of particular models. And that is exactly what is happening.

Dozens of pilots are currently underway, and they vary both in the components of the medical home model they emphasize and, to a lesser extent, the payment methods they use. We can only hope that within the next five years, a raft of evaluations with strong designs will bring clarity

to this topic—not only by answering the broad questions of whether medical homes improve quality of care, but also by teasing out which components of the medical home model have an important impact on patients’ outcomes. But even once these results are in, a key challenge will be to determine whether outcomes produced by early adopters of the medical home can be extrapolated to the rest of the country’s primary care practices, which may be less advanced than the vanguard practices participating in these pilots. To answer that question,

it will be important for evaluators to document key characteristics of practices that participate in the medical home pilots they study.

The medical home model *does* have the potential to transform the way health care is delivered – but “potential” is the key word here. The danger posed by the current enthusiasm for the concept is that it could lead to the adoption of unproven models on a wide scale nationwide before evaluations of existing pilots can show us what works in what situations, and what

levels of reimbursement are needed to get providers to engage in all the new activities encompassed by the medical home model. This could lead to a failure to improve quality or save costs, and could result in a good idea being dismissed as ineffective before it has a chance to succeed. Whether we have the patience to nurture and recalibrate the medical home model as evidence comes in from evaluations before jumping to conclusions about its success or failure remains to be seen.

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⁷⁶ For example, in 2009 AHRQ funded 14 grants totaling more than \$4.1 million per year for two years under a Request for Proposals titled "Transforming Primary Care Practice" that focused on medical homes. The purpose of these grants was to understand the "natural experiments" that primary care practices undergo as they transform into medical homes. (See AHRQ. "Transforming Primary Care Practice (R18)." 2010. (<http://www.ahrq.gov/research/transpcaw.htm>)) AHRQ is also funding an evaluation of the national CHIPRA-authorized quality demonstration states are implementing medical homes in child-serving practices. (See Greenberg D. "CHIPRA Quality Demonstration Grants," March 23, 2010. (<https://www.cms.gov/OpenDoorForums/Downloads/DemoLIHAPresentation032310.pdf>))

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