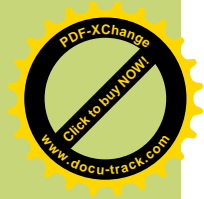


ARE DELIVERY





# The Medical HOME

How I.T. supports this new model of care.

*By Howard J. Anderson*

**T**he concept of the “medical home” has been kicking around since the 1960s, but how best to define the model for primary care is still the subject of intense debate. No matter how they precisely describe the model, however, many proponents say that information technology is vital to this patient-centered approach to care. Three key technologies to support the model are electronic health records, personal health records and health information exchanges.

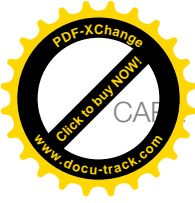
Under the medical home model, “A primary care physician is the orchestrator of care for individuals, especially for those with chronic diseases,” says Mitch Morris, M.D., national leader, health information technology for Deloitte Consulting, New York. The model also calls for “bringing together all the different resources in the community to advance the wellness of an individual and the community,” he says. That means a primary care physician is the hub or “home,” carefully coordinating care with a team of specialists.

“I.T. is the glue that holds it all together,” Morris says.

Paul Grundy, M.D., president of the Patient-Centered Primary Care Collaborative, a Washington-based group that advocates the medical home model, shares that view. “I.T. is really the key to supporting the doctor/patient relationship and making it more efficient, safer and more effective,” he says. “This is simply about restructuring the way health care is delivered to catch the efficiency of technology.”

Grundy, who’s also director of health care transformation at IBM Corp, Armonk, N.Y., predicts that the federal government’s definition of “meaningful use” of electronic health records that will be used to determine who qualifies for Medicare and Medicaid EHR incentive payments likely will support goals very similar to those of the medical home model.

Many observers say that a missing link for achieving the goals of the medical home model is a new method of paying physicians that rewards them for keeping patients, especially the chronically ill, healthy and out of the hospital. But rather than wait for such a payment mechanism to go beyond experiments and become ubiquitous, a growing number of physician group practices are moving ahead with implementing elements of the model. Those elements include using EHRs equipped with decision support, providing PHRs with patient self-monitoring features and enabling data exchange among primary care physicians and specialists involved in a team approach to treatment.



## SOME PIONEERS

Queens-Long Island Medical Group, a 300-physician practice in Garden City, N.Y., is phasing in the medical home model, with an initial focus on leveraging the use of electronic health records. “We see EHRs as the backbone of the medical home concept,” says Robert Fortini, R.N., chief medical affairs officer.

Meanwhile, a medical home project at the Brown University Center for Primary Care and Prevention is linking EHRs with PHRs and “studying how to make PHRs more useful in the day-to-day lives of patients,” says Charles Eaton, M.D., the center’s director. And leaders at the University of Oklahoma School of Medicine are helping to develop a health information exchange designed to support data sharing among team members involved in medical homes, says David Kendrick, M.D., the Tulsa-based school’s director of community medical informatics. “The patient-centered medical home remains to be well defined from an engineering point of view,” he says. “So we’re trying to get to that point.”

At Queens-Long Island Medical Group, the medical home push got started about three years ago because doctors got fed up with their highly inefficient workflows, says Suneel Parikh, M.D., a physician champion for the effort.

In the old model of care, all inquiries—such as prescription refill requests, referral inquiries and patient complaints—came to the physicians, creating bottlenecks. “Between handling the business of the day, dealing with phone calls and cleaning up at the end of the day, doctors were getting out of here at 9 p.m.” Fortini says.

By adopting a “care team approach” to providing better service to patients, messages are now directed to those who can take quick action. For example, a nurse handles prescription refill requests. Using an EHR from Chicago-based Allscripts, she can determine, for example, whether the medication can be automatically refilled for three months if the patient meets certain criteria. The nurse then sends the doctor a task alert within the EHR, asking him to approve the refill by clicking an electronic signature. Once approved, the prescription then is forwarded to the pharmacy electronically or by phone. “These alerts happen during my regular workflow as I’m seeing patients,” Parikh says. “I get task notifications in real time.”

The EHR enables all clinicians involved in treating a patient to access the same, complete information, which is essential to the medical home approach, the physician adds.

“If a specialist sees the patient, he can click a button that carbons the primary care practitioner on their evaluation,” Fortini adds. “So when the primary care physician goes into the record, on their task list is a ‘review document task’ from the specialist.”

The EHR includes decision-support templates that doctors use when treating patients, especially the chronically ill. For example, a template for ordering insulin for a diabetic includes an algorithm for calculating the right dose based on the patient’s lab results. “The templates help me to thoroughly go over everything that I need to know about the patient,” Parikh says.

Although all of the practice’s sites now use the EHR, so far, five of its 16 primary care locations have fully adopted the medical home model. The New York practice is hopeful of earning incentive pay-

## DEFINING THE MEDICAL HOME

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

Each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care....Care is coordinated and/or integrated across all elements of the complex health care system and the patient’s community....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 an culturally and linguistically appropriate manner.”

*Source: Excerpts from Joint Principles of the Patient-Centered Medical Home, March 2007, from American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians and American Osteopathic Association.*

## ONLINE RESOURCES AVAILABLE

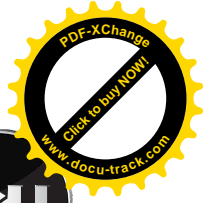
An essential ingredient in successfully adopting the medical home model is getting patients more involved in their health, says John Wasson M.D., professor of community and family medicine at Dartmouth Medical School, Hanover, N.H. To achieve that goal, Wasson led an effort to create [howsyourhealth.org](http://howsyourhealth.org), a Web site that more than 100,000 patients have used to provide information to their doctors.

The free site includes a detailed questionnaire that patients fill out to describe their health. This registry then can be shared with physicians regardless of whether they have an electronic records system, Wasson says. The site also includes a personal health record that patients can use to track medical information over the long haul. Physicians can pay a fee to customize the offerings and create a practice-specific version of the registry.

Wasson also is the lead faculty member for [medcalhome.org](http://medcalhome.org), an eight-hour online curriculum designed to help physicians adopt the medical home model.

The best way to judge whether the model is adopted properly, Wasson argues, is whether patients can say “I receive exactly the health care I want and need exactly when and how I want and need it.” He cautions against taking a process-centered, rather than patient-centered approach.

[Howsyourhealth.org](http://Howsyourhealth.org)  
[Medicalhome.org](http://Medicalhome.org)



## THERE'S A SIMPLER PATH TO EMR FOR YOUR AFFILIATED PHYSICIANS



### **DELL'S INTEGRATED EMR SOLUTION CAN HELP BOTH YOU AND YOUR DOCTORS**

There are many paths to take when trying to find the right EMR solution. By partnering with Dell, your hospital can sponsor a complete EMR solution for your affiliated physicians. This affordable solution accelerates the sharing of digital patient information between you and your community of doctors.

**DISCOVER A SIMPLER PATH TO EMR AT  
[DELL.COM/FindThePath](http://DELL.COM/FindThePath) OR CALL 1-866-DELL-EMR**

Designed by Dell. Powered by Intel.

Celeron, Celeron Inside, Centrino, Centrino Inside, Core Inside, Intel, Intel Logo, Intel Atom, Intel Atom Inside, Intel Core, Intel Inside, Intel Inside Logo, Intel Viiv, Intel vPro, Itanium, Itanium Inside, Pentium, Pentium Inside, Viiv Inside, vPro Inside, Xeon, and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries.





"The medical home model can be summed up as an informed patient who is interacting with a prepared, proactive team."

Charles Eaton, M.D., Brown University

ments from payers once it completes rolling out the medical home model at all these sites. So far, it has commitments from two major payers to launch pay-for-performance programs based on the medical home model for preventive medicine, Fortini says.

Next, the practice wants to implement a patient portal that incorporates a PHR that can share patient-generated information with its EHR.

### LINKING PHR, EHR

At Brown University Center for Primary Care and Prevention, some 85 chronically ill patients treated using the medical home model already are test-driving a PHR linked to an EHR. For example, progress notes entered into an EHR, from GE Healthcare, Waukesha, Wis., can flow into a PHR, from the German firm IntercomponentWare.

Brown is now working on enabling the easy transfer of patient-entered data in the PHR to the EHR.

Under the medical home model, the goal is to "encourage healthy people to stay healthy and to help the chronically ill manage their disease better," Eaton says. The self-management components of a PHR, such as tracking weight and blood pressure, can play a vital role for both groups of patients, he stresses. "We believe that without the patient at the center of it all, you're still going to have overutilization of services, patients not invested in their care, and poorer outcomes."

The medical home model, he says, can be summed up as "an informed, activated patient interacting with a prepared, proactive team." And Eaton is convinced that without I.T., this interaction will prove impossible. For example, doctors can use the EHR to gain easy access to treatment protocols for diabetics, including a check list for a physical exam. "That allows for everything to be well-documented," he says.

Ultimately, the sharing of clinical data gathered in EHRs will prove crucial to the effectiveness of care teams that are at the heart of the medical home model, proponents say. So the University of Oklahoma School of Community Medicine is helping to organize a health information exchange to enable the quarterback of care—the primary care physician—to easily exchange data with specialists in the region.

The school itself has rolled out the medical home model at about 17 of its clinic sites, which use an EHR from GE. Now, representatives of area hospitals, clinics and payers are meeting every Thurs-

## PRAGMATISM PAYS OFF IN NORTH CAROLINA

A Medicaid project in North Carolina is using a dose of technical ingenuity to enable physicians who lack an electronic health record to successfully launch the medical home model.

About 800,000 of the 1.2 million Medicaid recipients in the state are assigned to a primary care physician who uses the medical home model, says C. Annette DuBard, M.D. She's director of informatics, quality and evaluation for North Carolina Community Care Networks Inc., Morrisville, which provides technical support to 3,000 participating physicians organized into 14 networks.

Participating physicians receive \$3 per member per month for their role in coordinating patients' care. As part of that effort, they must submit data on care quality. But because most lack an EHR, DuBard's organization sends out chart reviewers to each site to comb through paper records (or in rare cases, EHRs) and enter quality data into a home-grown system. They prepare quarterly reports analyzing treatment of patients with certain chronic conditions, including diabetes, asthma and heart failure, and assess preventive services, DuBard explains.

Of course, program organizers remain hopeful that most practices will adopt an EHR, spurred on, in part, by federal incentives under the economic stimulus package. "We are trying to move in the direction of practices self-reporting data," DuBard says. But instead of waiting around for EHRs to become ubiquitous, DuBard's organization is gathering data using available resources.

In another data-gathering effort, the organization soon will use another existing source of data—Medicaid claims—to attempt to track patients who are overdue for such procedures as mammograms and eye exams and then alert their physicians.

day to flesh out plans for the Greater Tulsa Health Access Network, says Kendrick, the informatics specialist at the school. IBM Corp. also is involved in the project.

The goal of the planners is to activate the HIE by 2011 to help participants qualify for federal EHR incentives under the economic stimulus program, Kendrick explains.

Until then, the school's clinics are using the EHR to better track all the caregivers involved in treating each patient. "In Oklahoma, we don't have one dominant health care system, so we almost always send patients elsewhere for tests or to see a specialist," Kendrick says. "So we have to track that."

The school also soon expects to participate in a Medicaid pay-for-performance project that will pay participating doctors an extra \$7 per member per month for using the medical home model and tracking quality data. Kendrick and his team expect to provide technical support to the participants and perhaps even remotely host EHRs.