



Groups Push Physicians and Patients to Embrace Electronic Health Records

Tracy Hampton, PhD

EXPERTS AGREE THAT ELECTRONIC health records can save lives and money by reducing the costs and harms associated with medical errors and by cutting down on redundant tests and procedures. But a number of unresolved issues, including affordability and privacy concerns, have made hospitals, physicians, and patients slow to adopt them.

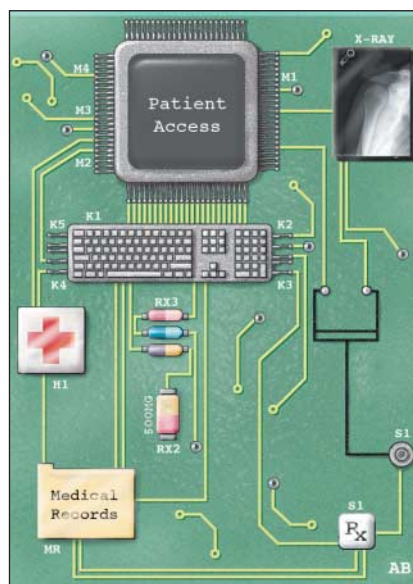
Although those hurdles remain, government and nonprofit organizations, as well as technology giants such as Microsoft and Google, are attempting to drive the technology forward. What is envisioned is an easily accessible electronic system that, by coordinating the storage and retrieval of individuals' health records, increases efficiency, reduces costs, and promotes standardization of care.

PERSONAL RECORDS

Numerous vendors have been marketing patient health records that are managed and controlled by each patient, but only a minority of consumers are buying into them. Although most individuals have yet to be sold on the idea of a personal medical diary, experts say that new technologies and an expanded scope of their benefits may change their minds.

"Millions of people are going every day to the Internet to look for medical information. We are in a time where patients are being empowered, and they're looking for convenience," said C. Peter Waegemann, CEO and executive director of Medical Records Institute Incorporated, a Boston-based company that promotes adoption of health information technology.

One of the most recent and ambitious projects that strives to tap into this perceived patient empowerment is Microsoft's HealthVault, a free software and services platform aimed at helping people better manage and monitor their per-



A variety of groups are working to entice physicians and patients to record and store medical information electronically.

sonal health information (<http://www.healthvault.com>). "People . . . must navigate a complex web of disconnected interactions between providers, hospitals, insurance companies and even government agencies," said Peter Neupert, corporate vice president of the Health Solutions Group at Microsoft. HealthVault allows individuals to collect their health information from many sources, store it in one place, and share it with whom ever they choose. They also can connect a wide variety of devices to a computer and upload the data to their individual HealthVault accounts.

Google plans to follow suit, although details are not yet available. Similarly, Intuit Incorporated, a provider of business and financial management solutions, is expected to come onto the scene and offer a system of its own. Other types of vendors also are striving to boost patient interest. Wal-Mart and Intel are leading a large employer coalition to develop a model called Dossia, and America's Health Insurance Plans and the Blue Cross and Blue Shield Association have worked together to develop a personal health record model that enables patients to transfer data when they change health insurers (<http://www.chcf.org/documents/chronicdisease/PHRPerspectives.pdf>).

Waegemann envisions a time when a personal health record site might include not only a patient's prescription data, but also a list of nearby pharmacies with information such as details on drug prices and hours of operation. "Or it might suggest that before you have your scheduled surgery, there's an alternative way through rehab," he noted. Some physicians will not be happy about these qualities, he conceded.

Efforts are being made to regulate and monitor such personal health record systems as they evolve. According to the National Committee on Vital and Health Statistics (the statutory public advisory body on health information policy to the Secretary of the Department of Health and Human Services), personal health records that are available today are heterogeneous, which makes collaboration and policy making difficult. The committee has published recommendations for realizing the full potential of personal health



record systems to improve health and health care: vendors should clarify the respective rights, obligations, and potential liabilities of patients, clinicians, and other stakeholders; consumers should have the right to make an informed choice concerning the uses of their personal information; security should be ensured; and information should be exchanged with electronic medical records, which are documentations of care provided by clinicians to patients and are maintained by hospitals or health care practices (<http://www.ncvhs.hhs.gov/0602nhirpt.pdf>).

This last recommendation is particularly important, said Waagemann. Personal health records will be valuable only if accurate medical information is provided by physicians and other clinicians through electronic medical records generated at the point of care. “Microsoft and Google are trying to create partners in the electronic medical record world who can directly download information into a patient’s personal health record,” said Waagemann.

PHYSICIAN ADOPTION

But only a minority of practices and clinics currently use electronic medical records. A study of surveys on electronic health record adoption published last year found that approximately 24% of physicians used electronic health records and only 5% of hospitals used computerized physician order entry (Jha AK et al. *Health Aff (Millwood)*. 2006;25[6]:w496-w507).

“There’s a wide range, though,” said Waagemann. “In Massachusetts, there are between 70% and 80% [of physicians who use electronic medical records], but in Mississippi, there are only single digits.” He added that there also are differences among specialties.

The lack of widespread use of electronic health records can be attributed to a number of factors, from finances and logistics to privacy concerns and lack of interest. A 2007 poll of more than 800 health care professionals conducted by the Medical Records Institute found that the most commonly

cited barriers to implementation of electronic medical records systems include a lack of adequate funding or resources, anticipated difficulties in changing to an electronic medical records system, difficulty in creating a bridge from paper to electronic documentation and record keeping, and an inability to find a system at an affordable cost (<http://www.medrecinst.com/MRI/emrsurvey.html>).

In an attempt to encourage more use of electronic medical records, the Centers for Medicare & Medicaid Services (CMS) has announced a pilot program that will give higher Medicare payments to physicians who adopt them (<http://www.cms.hhs.gov/DemoProjectsEvalRpts/MD/itemdetail.asp?itemID=CMS1204776>). The agency will begin recruitment in the spring and would like 1200 physician practices to participate. The program is part of President Bush’s technology agenda, which seeks to have electronic health records for most US individuals by 2014 (<http://www.whitehouse.gov/infocus/technology/>).

In the first year of the CMS program, physician practices will receive extra payment for using an approved electronic medical record to manage patient care. Within the program, practices that perform better than others on designated clinical quality measures will receive larger bonuses.

However, critics say that many physicians in small- and medium-size practices cannot afford to establish and maintain electronic records. Physician organizations would like Congress to consider offering financial help, such as grants, loans, and tax credits for physicians who purchase the necessary technology.

The CMS anticipates that most physicians would improve the quality of care and save money over time by using electronic medical records. One cost-benefit study of ambulatory primary care settings found that the estimated net benefit from using an electronic medical record for a 5-year period was \$86 400 per clinician (Wang SJ et al. *Am J Med*. 2003;114[5]:397-403).

PRIVACY ISSUES

One of the greatest concerns over adoption of either electronic medical records or patient health records is ensuring adequate confidentiality. In a 2006 telephone survey of 1003 US individuals by the Markle Foundation, a New York City–based organization that promotes information and communication technologies, 80% of individuals said they were very concerned about identify theft or fraud and 77% were worried about the possibility of their information getting into the hands of marketers (http://www.markle.org/downloadable_assets/research_doc_120706.pdf).

The Coalition for Patient Privacy—a bipartisan group of state and national consumer organizations—wants the federal government to pass privacy laws that will place patients in control of how their electronic records can be used and shared (<http://www.patientprivacyrights.org/coalition>).

“Congress should restore every American’s right to control access to their sensitive health and genetic records,” said Deborah Peel, MD, founder of Patient Privacy Rights, a national consumer health privacy watchdog organization based in Austin, Tex, and a member of the Coalition. She noted that after signing their Health Insurance Portability and Accountability Act (HIPAA) forms, most US individuals believe their health information will not be disclosed without their permission. According to her organization, the HIPAA rule authorizes more than 4 million entities—such as insurers, health care clearinghouses, and clinical professionals—to use and disclose an individual’s health information without his or her consent.

Microsoft has joined the Coalition for Patient Privacy in calling for legislation to include basic privacy protections for electronic health records. “Such protections are needed to ensure the creation of a health IT ecosystem that consumers can trust,” said Frank Torres, Microsoft’s director of consumer affairs.



Peel said the privacy protections built into Microsoft's HealthVault reflect the privacy principles of the Coalition for Patient Privacy. "They have set a new and high bar for the entire health IT industry—they're specifically stating up front that they're going to meet 17 principles for privacy from the Coalition for Patient Privacy," she said. Those include patient control of all access, no

secret databases, and no data mining. Microsoft has stated that it will log every time records are created, changed, or read, leaving a clear audit trail.

While adoption of electronic medical records and personal health records are considered the way of the future, "the majority of them actually violate long-standing laws that information should not be released with-

out consent," said Peel. She noted that most vendors of hospital-wide electronic medical record systems reserve the right to data mine and own patients' health information.

"We want health IT—it's going to do great things. But it's going to destroy people's futures, including jobs and credit, if we don't build in privacy," said Peel. □

Therapies Aim to Boost "Good" Cholesterol

Mike Mitka

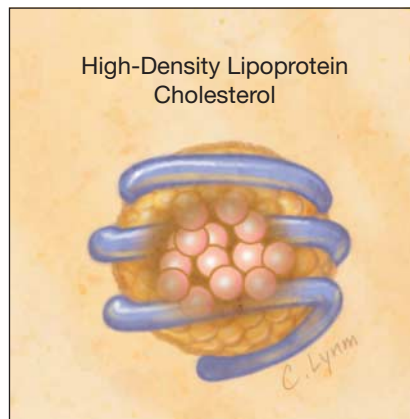
RESearchers have yet to develop well-tolerated and accepted therapies for increasing high-density lipoprotein cholesterol (HDL-C), the "good" cholesterol, but that does not mean they are not trying.

Much effort over the past several decades has focused on reducing overall cholesterol levels—an effort that has been fairly successful. A 2005-2006 survey found the average cholesterol level for US adults was under 200 mg/dL for the first time in almost 50 years, according to the US Centers for Disease Control and Prevention. Statin therapy, the mainstay in the cholesterol fight, is credited with reducing coronary artery disease by about 30%.

Now some researchers have turned their attention to boosting HDL-C levels. "There is no question that the epidemiology is there—that HDL levels are inversely related to cardiovascular disease risk," said Steven E. Nissen, MD, chairman of the Department of Cardiovascular Medicine at the Cleveland Clinic Foundation. "Secondly, there's evidence that raising HDL, by some mechanism, is beneficial."

Lifestyle techniques—including exercise, weight loss, and smoking cessation—have been shown to modestly improve HDL-C levels. So have some medications, notably nicotinic acid (niacin or vitamin B₃) and fibrates. But researchers want to improve on these tools.

Niacin has been particularly beneficial in increasing HDL-C, but its major adverse effect, flushing, has kept it from becoming a frontline medication, said B. Greg Brown, MD, PhD, a professor in the



Researchers are exploring ways of increasing high-density lipoprotein cholesterol levels to reduce cardiovascular disease risk.

division of cardiology at the University of Washington in Seattle. "About 20% to 30% of patients prescribed niacin drop out due to flushing," Brown said. "And the reality is that physicians don't want to bother with talking patients through their flushing, so they don't even prescribe it." As a possible way around the flushing problem and physician reluctance to prescribe the vitamin, researchers are exploring combining statins with extended-release niacin (which poses a lower risk of flushing).

At the November Scientific Sessions of the American Heart Associa-

tion held in Chicago, researchers presented promising results from a study of a combination therapy with niacin and a statin that minimizes flushing. The Safety and Efficacy of a Combination of Extended-Release Niacin and Simvastatin in Patients With Dyslipidemia (SEACOAST) trial was a 24-week, double-blind, randomized controlled trial of more than 600 patients with elevated non-HDL-C. The trial was funded by KOS Pharmaceuticals, which has since been bought out by Abbott Laboratories (Abbott Park, Ill). Investigators found that patients given Simcor, an investigational fixed-dose combination of simvastatin and Abbott's extended-release niacin, Niaspan, had more improvement in HDL-C levels than those taking simvastatin alone (18% higher for those taking a 1000 mg/20 mg extended-release niacin/simvastatin and 25% higher for those taking 2000 mg/20 mg combination therapy compared with 7% of patients taking 20 mg of simvastatin only).

"When you look at the demographics of the population—obesity, diabetes, metabolic syndrome—there's more to do than just lower total cholesterol. This could give clinicians another option for treating these patients," said Christie M. Ballantyne, MD, lead author of the SEACOAST study and director of the Center for Cardiovascular Disease Prevention at the Methodist DeBakey Heart Center in Houston.

While raising HDL-C may be a good goal, its long-term effects on reducing