

MOLLY COYE, HEALTHTECH

Forecasting the Future of Transformative Technologies

At many hospitals and doctors' groups, building effective electronic medical record systems is a work in progress. For Molly J. Coye, MD, the bigger story is that the idea has firmly taken hold.

"Five years ago, a high proportion of hospital administrators and doctors were saying that some day there will be (electronic medical records), but not in their lifetimes," Coye said. "Now they have them, or will. That's a sea change in our industry."



Coye is one of the forecasters of medical Internet technology, a doctor who tries to imagine what the dizzying and often pricey changes in computer electronics can bring to medicine. She is founder and chief executive officer of The Health Technology Center, or HealthTech, a not-for-profit research organization in San Francisco.

While doctors, nurses and administrators learn to maintain charts electronically and share more patient information instantly, Coye's staff is studying the potential — good and bad — for the sorts of electronic gadgetry they might be using in the future.

Examples include the "talking" prescription bottle and other electronic in-home aids that encourage patients to take their pills and enable medical staffs to monitor their well-being from afar. Coye calls them "transformative technologies," smaller pieces that fit into the bigger medical information technology world.

"These are small, relatively inexpensive technologies that can make big differences," she said.

The pitfalls and fears are the same as those of the expensive, massive changeovers from paper charts, files and billings to the paperless health system.

"Nobody wants to invest a lot of money and find out they bought the wrong thing," Coye said.

Founded in 2000, HealthTech is underwritten by its network of health systems, government agencies and others that account for about 25 percent of the nation's hospital capacity. Among the largest partners is the Veterans Health Administration. HealthTech's staff churns out reports on new technologies, trends and how systems already in place are working, or aren't.

What the company doesn't do is recommend brands or vendors. But the information is designed to be useful to administrators who get bombarded with sales pitches about supposedly world-changing electronic miracles that just happen to carry stiff price tags.

Coye has been immersed in medical advances since childhood as the daughter of a pathologist father and a mother who worked in mental health planning. But she didn't enter medical school until age 27, turning her attentions first to political science and then two years of studying history and Mandarin Chinese in Taiwan.

She caught up in a hurry. In 1977, she graduated from Johns Hopkins University School of Medicine with her medical degree and a master's degree in public health. She interned in family practice at San Francisco General Hospital and, in 1980, became chief of its occupational health clinic.

In 1986, she became New Jersey Health commissioner. Five years later, she returned to California as its health services director. From 1993 to 1996, she was a senior vice president for clinical operations at Good Samaritan Health Hospital in San Jose, Calif., then moved directly into the sort of long-range thinking and consulting that keeps her airport-hopping these days.

A watershed was her work through the Institute of Medicine in Washington, D.C. In 1999, she helped write "To Err is Human: Building a Safer Health System," a call for improvements in the quality of care. She said



that work led to examining “the external factors that would become bridges or barriers to improvements in quality” such as the proliferation of computers.

Through the Institutes of Health, she became a leader in the effort to make health care a paperless industry by 2010, something that won’t happen but is well underway.

Many hospitals have developed electronic medical records and other systems, but resistance continues. A recent federal study states that about 40 percent of doctors use electronic medical records, and many of them say their systems don’t work particularly well. This March, the American College of Physician Executives released a report suggesting doctors’ use of these records had doubled since 2004, up to 64.5 percent. (The study is based upon voluntary responses to a survey of doctors’ offices.)

But that study detailed much skepticism, for reasons including high cost, slow retrieval of information and cost savings that fall more to insurance companies and employers than the doctors who buy the systems. Some doctors just prefer filling out charts in ink, and hospital administrators often don’t want to incur their wrath.

Even though Coye believes the larger battle of acceptance has been won, she said numerous issues and challenges remain. Systems that link doctors’ groups, hospitals, nursing homes and insurers, such as regional health information organizations, are up and running in some areas. But plenty of humbler attempts at information-sharing have their headaches.

“Places that try to cobble together the best of breed of several systems find that they don’t talk to each other very well,” she said. “Even if you have the same (electronic medical record) system as the hospital next to you, that doesn’t mean the systems will work together. Administrators fear huge price tags.

“Many say the easiest part of an (electronic medical record) system is installing it. The harder part is getting doctors and nurses and everyone else to change the way they work.”

But it’s worth it, she said, to have information available immediately to doctors, hospitals, pharmacies and nursing homes, especially since most patients see more than one doctor.

Another incentive comes from changes in the political winds in Washington. Coye said the Obama administration is making clear its goal “is to finance health reform in part by savings on the

delivery side. The source of that savings would be in reducing unnecessary or duplicated care. It’s pretty clear there will need to be more collaboration.”

The carrot is in Obama’s stimulus deal with Congress, which includes \$36 billion for hospitals and doctors, including \$2 billion specifically for health information exchanges.

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Although the big job of promoting and creating electronic medical record systems dominated the trade publication headlines in the first part of this decade, Coye said HealthTech’s work on transformative technologies has been underway since the organization’s founding.

“We’re particularly interested in technologies that people may not know so much about, but will help in clinical care,” she said.

For example, health providers can let patients take home a talking prescription bottle and other devices so that it is more likely that they will take their medicines. Other electronic devices can monitor patient conditions at home and report daily to their doctors. But even gizmos such as those meet with resistance of the sort that Coye’s organization is designed to help overcome.

“We want people to know that transformative technologies can reduce the overall cost of care and improve the quality of care,” Coye said. “Sometimes the reason for resistance is that our payment system doesn’t pay to keep patients healthy. We’ve had hospitals terminate trials because nobody needed to be hospitalized. Many administrators would like to do the right thing, but face a hostile reimbursement system.”

Coye sees her job as helping health care professionals work through those doubts for the benefit of their patients. She said HealthTech plans to award \$2 million in grants to health systems that are interested in adopting transformative technologies.

“Some of these systems, however small, can require some large-scale changes in the way doctors and others provide care,” she said. “But once doctors begin using them, they often like them a lot.” ■