

he concept behind electronic medical records, or EMRs, is to lower health care costs through increased patient safety and improved efficiency. But pinning down financial savings is proving difficult.

Elliot Health System of Manchester, a 296-bed acute care hospital with outpatient clinics, home health operations and physicians group practices, has been at the vanguard of EMR use in NH. The health system released MyEChart Mobile in February, an application for Android

and iPhone. Patients can review medications, lab and diagnostic imaging results and more. Elliot patients have had access through their home computers for about five years, says Denise Purington, RN, chief information officer, "but with everyone's lives being so busy today, rolling out MyEChart as a mobile app too makes it so much easier."

Meaningful Use

Government mandates have been a large driver behind EMR adoptions by hospitals and physicians. The Health In-

formation Technology for Economic and Clinical Health, or HITECH, Act—part of the American Reinvestment and Recovery Act of 2009—mandated health care providers to adopt EMRs and achieve specific objectives using them by 2015. Those that don't comply by 2015 could face possible decreases in total annual Medicare and Medicaid reimbursements by as much as 1 percent or more.

To ease the sting, the HITECH Act appropriated some \$27 billion for incentives and split the certification process into three stages. The first meaningful use stage re-



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Sign up for our Blogs! www.protectorgroup.com quires providers to implement and use a core system, which includes functions like computerized physician order entry and electronic prescribing. The final two stages have yet to be finalized but will call for advanced uses and greater integration for improved patient outcomes.

At the time of this writing, the Centers for Medicare and Medicaid is expected to finalize Stage 2 requirements sometime this summer, perhaps as early as mid-June, having already extended the final ruling deadline for a year. Currently, providers need to comply with Stage 2 requirements by 2014, though that is subject to change. The Centers have only some general procedures for Stage 3 and a possible compliance target date in 2016.

The good news is NH's hospitals are ahead of the game. A February report by the Office of the National Coordinator for Health Information Technology (ONC), the government's meaningful use oversight office, says nearly 44 percent of the NH acute care hospitals responding to the

agency's survey indicated they already have EMRs. far exceeding the national average of 35 percent.

In the cases of Elliot Hospital and Core Physicians, a multigroup physicians pracaffiliated tice Exeter Hospital, both have met Stage 2 and are nearly complete for meeting the third stage. Androscoggin Valley Hospital, a 25-bed critical access hospital in Berlin, performed a major system upgrade last July and will be applying

for first stage certification in June.

Derry Medical Center, the state's largest independent primary care group and one of the earliest EMR adopters in NH, is also expecting to apply for Stage 1 readiness this summer.

Future penalties for non-compliance could be significant, but the incentives for meeting the standards are just as great. Hospitals can receive as much as \$2 million in installation and preparation incentives over the three-stage process and physicians could be reimbursed by more than \$60,000.

Virtual Health Checks

MvEChart Mobile is the latest in a long line of EMR innovations at Elliot. Its hospital and physicians network have been linked through its Epic EMR system for more than a decade. It also has an electronic prescription ordering system. Over the years, Elliot has wired virtually every part of the health system. Only its home health practice is awaiting integration.

"If you move between providers and that data isn't there, it can be very frustrating," says Purington. "It's really beneficial, not only for the physician, but for the patient to have that information available."

EMRs can achieve impressive medical results. Core Physicians in Exeter identified patients taking the arthritis drug Vioxx when it was recalled in 2004 due to heart safety concerns. "We were able to have a letter prepared to send to them in about 20 minutes," says Sean O'Neil, vice president of organizational excellence for Core. Core



Denise Purington, RN, chief information officer for Elliot Health System, demonstrating the MyEChart Mobile app.

was also able to conduct an EMR search for women who had not recently received mammograms and, as a result, potentially save patients' lives through early detection and treatment. With 29 locations and some 150 providers spread throughout the Seacoast, such tasks would have been virtually impossible with paper records.

Providers say EMRs have a crucial effect on the delivery of care. Cynthia S. Cooper, M.D., has an independent gynecology practice in Dover with one other physician and a nurse practitioner. Not only can she send prescriptions electronically to a pharmacy of the patient's choice, she says she can access patient records from a secure connection from home, an advantage when she's on call.

Purington says Elliot's system has improved workflow. "For example, when a patient is ready to go into an operating room, surgeons and nurses don't need to search for paper medication records from the pharmacy; it's all online," she says.

Derry Medical Center in- \$\frac{1}{6}\$ stalled its Allscripts EMR system back in 2003. "The real advantage of EMRs is the opportunity to redesign workflow to be more efficient," says CEO Tom Buchanan. "We've saved significantly on back office expenses, and have been able to leverage phenomenal efficiencies."

Spending to Save

For all their promise, EMRs don't come cheap. "We've spent about \$2 mil-



Independent physician Cynthia S. Cooper

lion since migrating to Meditech last summer," says Jean Wolf, director of health information management at Androscoggin Valley Hospital. Core's O'Neil says its NextGen system required 8 percent of the organization's budget as an initial capital expenditure and another 5 percent each year to maintain the system. Derry Medical Center allocates \$100,000 annually in EMR license fees alone.

Cooper, who is also president of the NH Medical Society and a member of the physician hospital organization at Wentworth-Douglass Hospital in Dover, says she paid \$60,000 out of pocket for her EMR system, which went live in December. She paid another \$15,000 this year for maintenance and support.

Besides the legal requirements, Purington says the investments are worth it as "It's higher safety." Medical errors, such as administering the wrong medication, are a serious concern. According to the federal ONC, up to

200,000 preventable medical errors occur in the United States each year, costing more than \$17 billion. A 2005 study by the Rand Corp., the most recent study of its kind, states EMRs could save \$77 billion annually in inpatient and outpatient care.

Cost Savings?

While the potential exists for significant improvements in care delivery—and



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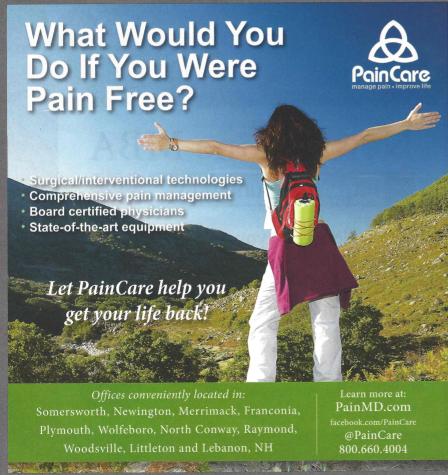


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therefore huge cost savings—none of the providers interviewed say they saw clear-cut financial savings. "It's hard to put your fingers on cost savings from having an EMR," says Elliot's Purington. "While we know having a system will decrease duplicate testing, for example, you can't really ask, 'I wonder how many tests we didn't do because we have Epic?""

Derry Medical Center's multi-provider primary care practice has three locations, 30 physicians and practitioners, and dozens of nurses and other providers. Managing care and all the information associated with it would have been nearly impossible without an EMR system, Buchanan says.

"It was an enormous expense to pay for dictation services; we could spend as much as \$20,000 a month. That's an expense we don't have now because of the EMR," Buchanan says. "We were even able to allocate more space for exam rooms and hire more clinical staff because we saved on what we would have had to spend just managing the paper."

Security and Privacy

Elliot's MyEChart Mobile app is an example of the future of EMR. Core Physicians also has a mobile app, Physician Finder, allowing patients to search for specialists and primary care physicians from their mobile devices. Derry Medical Center has a patient portal accessible through the Web, and a mobile app for its providers.

These comes with privacy and security issues. The *Salt Lake Tribune* reported in April on a breach of some 800,000 Utah Medicaid patient records by hackers.

While no format is completely secure, NH proponents of EMRs say health data is actually safer than on paper. "With Next-Gen, I can see who looked at which record, what they looked at, when they looked at it and from where it was accessed. If someone was snooping in a paper file, we'd have no way of knowing," says O'Neil. Like most providers, Core and Exeter Hospital say they conduct frequent random audits as well as scheduled reviews as part of their EMR security protocols.

Despite the challenges and rewards that can be difficult to quantify, the potential for increased patient safety, cost savings and government incentives has made the implementation and use of EMR systems an inevitability for health care providers.