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Reality EMRs

Coming soon to an organization near you--electronic record keeping.

by Mark Hagland

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Ten years ago, John Haughom, M.D., gave up his practice as an internist and gastroenterologist to lead a quality improvement/IT initiative at the Peace Health System in Bellingham, Wash. He loved his practice, but he is passionate about using IT to help clinicians improve the way they work and the quality of their care. And he has no regrets. As vice president of healthcare improvement, Haughom has moved the integrated health system into the vanguard of patient care organizations nationwide that are implementing an electronic medical record (EMR) and pushing toward the even more ambitious concept of the electronic health record (EHR).

The current initiative at Peace Health, a six-hospital organization with operations across western Washington and Oregon and southeastern Alaska, began in 1991 when the CEO hired a consulting firm to help define its healthcare goals beyond 2000. "We decided we needed a more seamless continuum of care, a culture of quality and safety, and an IT infrastructure to support those two," Haughom recalls. What emerged was the foundation of Peace Health's systemwide EMR, called the "community health record project."

Now everything except physician progress notes and orders is online, with the help of software from Burlington, Vt.-based IDX Systems Corp. Computerized physician order entry (CPOE) pilot projects are evolving in three of the system's five regions, with full-scale CPOE implementation expected within the next year or so. The owned physician practices (which represent a minority of total outpatient visits) have a complete outpatient EMR connected to Peace Health's inpatient EMR.

Haughom, a speaker at the Chicago-based Healthcare Information and Management Systems Society (HIMSS) conference in Orlando in February, says he and his colleagues have learned that "the determinants of success for implementing an EMR boil down to four things: vision and leadership, people, process and partnerships." Understanding the technology involved is important but not an absolute requirement. "Putting in the EMR for us was a necessary step to deal with the quality and safety issues that exist in healthcare," he says.

Success springs up all over

After a period in which it seemed that talk about EMRs greatly overshadowed actual implementations, hospitals and organizations across the country are, like Peace Health, building real, vital EMRs. For example:

- The Queens Health Network has, over several years, implemented an integrated, interdisciplinary, self-developed EMR that is used daily by more than 4,300 physicians, nurses, lab and radiology techs, dietitians, social workers and health educators. The organization, located in New York's borough of Queens, encompasses two public hospitals with a total of 771 beds and a vast network of

clinics that handle 1 million visits a year. It first implemented CPOE in early 1997 in its outpatient setting, converting from paper in six months, notes Diane Carr, associate executive director of information systems. For their innovations, Carr and her colleagues were awarded the Nicholas E. Davies Award last year.

- Two years ago at Central Utah Multi-Specialty Clinic, Provo (this year's recipient of MS-HUG's Clinic of the Year Award), physicians took various modules from Chicago-based Allscripts Healthcare Solutions and implemented an EMR for the clinic's 59 physicians. They have incrementally implemented dictation, documentation, results, prescription writing and structured notes modules, according to Jamie Steck, director of IT, and Jeffrey Johnson, M.D., chairman of the physician group's IT committee. Some physicians report saving tens of thousands of dollars annually by switching from traditional dictation to electronic notation.

- The 25 cardiologists affiliated with Associated Cardiovascular Consultants, based in Cherry Hill, N.J., have also spent the past two years developing an EMR for their practice. Using pen tablets and software from Andover, Mass.-based Amicore Inc., they generate their patient notes during the visit and also can access any relevant information immediately. Patients leave an office visit with printouts of any prescriptions--which have been ordered for them electronically--and a medication list they can take along to family physician or emergency room visits. Since the cardiologists practice in several clinic and office sites across their service area, such innovations are invaluable, notes John Saia, M.D., a member of the group's IT committee.

- In Boston, the 40 physicians at the Joslin Clinic (a division of the Joslin Diabetes Center) use software from NextGen Healthcare Information Systems, Horsham, Pa., to support an ambitious specialty-clinical program that aids in caring for 15,000 patients a year. Care management and documentation for adult diabetes and renal disease patients are already 100 percent paperless. Chief medical officer Alan Moses, M.D., says a key lesson of the Joslin experience is, "You have to choose or design a system that fits into your model of practice. It's really hard to demand that the practice change its model to fit the computer system. We're an example of a really unusual practice that has created something we think is unique."

No holding it back

Patient care organizations are taking widely diverse approaches to the EMR--in widely diverse market, operational and patient care contexts. Indeed, diversity seems to be the hallmark of EMR development across the country. Yet all the organizations developing or planning to soon develop EMRs share broad common goals: to improve the quality and safety of care, to reduce costs and unnecessary labor, to provide decision support at the point of care, and to create stronger physician partnerships.

The 15th Annual (2004) HIMSS Leadership Survey, cosponsored by HIMSS and Superior Consultant Co., Southfield, Mich., confirms growing IT interest and activity. The top eight applications chosen by IT executives as most important in the next two years are clinical, with EMRs in a three-way tie for first. Although the survey found that only 19 percent of hospital-based organizations have an EMR in place (and many experts question even that figure), 37 percent of respondents said their organizations have begun installing an EMR system, and 23 percent said an EMR development plan has been launched. Only 21 percent have no current plans for an EMR.

Recently, Forrester Research, Cambridge, Mass., predicted that EMR sales to physician practices will increase from $816 million in 2003 to $1.4 billion in 2008. In the same time period, spending will more than double among small physician practices, from $366 million to $829 million. By next year, Forrester analysts say, for the first time, sales to small practices will surpass those to larger practices.

Many IT executives scoping out the vendor market are confused--and not just by vendor claims. Even the term "EMR" is subject to debate, since no consensus has been reached on its technical definition. President of Houston-based AC Group Mark R. Anderson, a consultant and researcher, says he has a database of more than 260 vendors saying they sell an ambulatory EMR, and he expects to find many more in the coming months. Yet based on his investigation and responses to his firm's detailed questionnaire, Anderson says there are probably only 16 or 17 vendors that currently offer truly comprehensive EMR systems that encompass knowledge bases, clinical decision support and CPOE. He advocates developing a certification program for EMR systems.

And EHR, the newest term being used, adds another degree of vagueness (see "You say EMR, I say EHR," at the end of this article).

Practical concerns here and abroad

Experts believe that practical issues--cost, accountability and quality--will push EMR development quickly in the near future. For example, says Jane Metzger, research director of emerging practices at the Boston office of First Consulting Group, "I would argue that pay for performance for physicians is an incentive" for EMR development. The kinds of "clinical outcomes, process and outcome measures" that are being advanced cannot be consistently improved without some kind of patient tracking, she notes.

Ultimately, Metzger says, given the potential for improving clinical outcomes while cutting costs, payers will help drive EMR development, possibly through such means as subsidies to physicians (and perhaps indirectly to hospitals). A key element will be development of disease registries. They are essential in a truly comprehensive EMR, she says, and will help move healthcare toward population health management, which has tremendous potential for health improvement.

It's important to put U.S. progress into an international perspective, industry experts say, and to learn from experiences in other countries. "This is moving faster in Europe, because in some ways, having a national health system is easier," says Ken Lacey, global managing partner for the Health and Life Sciences Practice of Accenture's U.K. operations. "They can make decisions and fund it. And obviously, healthcare is a very country-specific industry."

Lacey is involved in a large project to develop a comprehensive clinical information management system for hospitals in two regions (serving about 40 percent of England's population) of the five comprising the U.K.'s National Health Service. "My feeling, particularly after attending the [recent] HIMSS conference, and based on what I'm seeing happening in the Netherlands, Germany, Sweden, Denmark, France and the U.K., is that everybody is moving toward a global solution" for clinical information management, Lacey says.

The challenge he sees in integrating systems across organizations and sharing clinical data in the United States is the proprietary nature of patient care and clinical information, which reflects our healthcare system. Exceptions, he notes, are the Veterans Administration and Department of Defense healthcare systems, whose leaders are creating broad, integrated clinical systems.

The required confluence won't happen without external pressures, says John Quinn, principal and chief technology officer in the Healthcare Practice of Cap Gemini Ernst & Young, New York. "First and foremost," he says, "someone has to take control." Encouraging the private healthcare marketplace to move forward by employer-based groups like the Leapfrog Group, Washington, D.C., won't be enough. Quinn believes that Congress and the Department of Health and Human Services are likely entities to provide a push through legislative or regulatory means, though he fears unfunded mandates and their financial impact on providers.

Doctors assemble

A major practical concern, on the outpatient side, is that most U.S. physicians practice solo or in groups of less than 10. How can doctors in such small practices get hooked up?

A. John Blair III, M.D., CEO of Taconic IPA, a 3,000-physician independent practice association (IPA) based in the Hudson Valley town of Fishkill, N.Y., may have an answer. He has helped lead an EMR development initiative that addresses some of the challenges of getting small-practice physicians to invest in EMRs. The IPA gave small financial bonuses to physicians who agreed to use the EMR system being developed and created a technology affiliate firm to support users.

The response has been enthusiastic, Blair reports. More than 350 physicians and 1,500 end-users (including nurses and other staff) have joined the initiative. From a small-scale pilot in 2002, it will become a true EHR by 2006, he anticipates.

A consensus on requirements

Despite the range of approaches to create EMRs and encourage physicians to adopt them, lessons learned are surprisingly similar. To be adopted, EMRs have to be developed with input from physicians and other clinicians from the very start. They have to be practical, provide an advantage over a paper-based practice, and at the very least, require no more time to use than paper-based systems. They must offer useful clinical decision support at the point of care and be flexible, allowing for customization and enhancing clinical workflow (not simply automating bad existing processes). They must help analyze care, identify patients at risk, and use data to suggest ways--for both the clinician and the organization--to improve care and patient and population health.

EMR implementers should consider how much end-users will have to change their work lives. "For most healthcare workers today, including docs, nurses and all the allied health professionals, the idea of using computers in day-to-day clinical practice is still foreign," says Peace Health's Haughom. Fortunately, he says, things are changing rapidly. "Our core business is clinical care, and the vast majority of providers will agree that you have to provide the highest-quality care you can give. And if you accept the logic that automation can help you to achieve high-quality, safe care, then you have to agree that it's important to move forward on that."

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YOU SAY EMR, I SAY EHR

The buzz-term at the 2004 HIMSS conference clearly was EHR, or electronic health record. Many vendors and some providers are already using the term to replace EMR. But experts stress that, ideally, EHR should refer to a broader concept--an institutionally based electronic patient record that also encompasses patient involvement.

The concept took shape years ago, but comprehensive products have not, says Erica Drazen, a vice president in the Boston office of First Consulting Group. Earlier EHR versions--primarily personal health record programs giving patients access to a Web page or some portion of their health record--have been attempted in recent years, with varying results.

Some organizations, such as Peace Health System in the Pacific Northwest and Taconic IPA in upstate New York, are planning EHR rollouts as part of their long-range EMR development. Industry leaders, like Texas consultant Mark Anderson, are launching initiatives to catalog commercial EHR products and working with industry groups to establish certification requirements.

Will EHR unseat EMR as the accepted term? Stay tuned.

--M.H.

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