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Deadline for e-health rollout may do more harm than help

Rush to qualify for federal money could yield chaos

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Hospitals and physicians in the U.S. have until 2015 to deploy comprehensive electronic health records (EHR) and the accompanying technology to meet federal guidelines and qualify for billions of dollars in reimbursements. But some health care experts are concerned that the quality of e-health systems might be at risk because of unrealistic deadlines and confusion about what to do first.

"I think we have nontechnology people making decisions about technology," said Gregg Veltri, CIO at [Denver Health](#), a health care group that serves some of Denver's poorest residents. "The issue is the timelines. I wonder if anybody understands the reality of IT systems and how complex they are, especially when they're integrated together. You're going to sacrifice quality if you increase the speed [of the rollout]."

Veltri said he sees a "perfect storm" coming when it comes to EHRs, with security gaps, system integration problems, federal certification issues and clinician education challenges.

To try and smooth the way, federal agencies are working on rules designed to help explain what needs to be done and how EHR efforts will be measured.

Rules, rules, rules

In late December, [the federal government released](#) a long-awaited 556-page draft rule that contains specifications and certification criteria for EHRs. Those rules, now available for public comment, set a four-year goal for implementation and spell out best practices in delivering care and sharing patient information between hospitals and clinicians.

More recently, on Feb. 12, the U.S. Centers for Medicare and Medicaid Services issued a finalized version of its [Notice of Proposed Rule Making](#) that help define what type of technology should be used and how \$36 billion in incentives from the [American Recovery and Reinvestment Act of 2009](#) should be paid. That money would be distributed between 2011 and 2015.

Last year, just 10% of health care facilities in the U.S. used EHRs; by 2014, the government wants more than half of all facilities to use them. To spur the initiative, it's offering money -- a lot of it. Physicians who implement EHR systems can get as much as \$44,000 to help defray technology costs; a typical 275-bed hospital would be eligible for

approximately \$6 million. But clinicians and health care facilities must show they're using EHRs in a meaningful way beginning in the government's 2011 fiscal year to qualify for a full incentive payment. Hospitals that do not meet federal guidelines by 2015 face Medicare reimbursement cuts.

At issue is what constitutes "meaningful use." The rules already proposed by the two agencies -- both of them part of the Department of Health and Human Services (HHS) -- explain that standard and detail the first phase of any EHR rollout. The rules, which are expected to be finalized this spring, focus how to capture patient health data in a coded format, how to use it to track patient condition and coordinate care, and how to roll out clinical decision support tools to facilitate disease and medication management.

Future rules, due out next year and in 2013, will focus on improving quality of care, exchanging patient data in structured formats, allowing patient access to health records and using "evidence-based medicine." The latter would enable the federal government to monitor how doctors treat patients based on standard treatments. For example, it's been known for years that patients should be prescribed aspirin after a heart attack, but there's currently no way of making sure that happens.

Although the rules are being developed in phases, industry experts and even government officials are concerned that the rush to deploy EHRs could lead to administrative complications, formatting problems, errors and interoperability glitches. With that in mind, Sen. Charles E. Grassley (R-Iowa), [sent a letter](#) in January to some of the nation's largest health care facilities asking for any information on "issues or concerns that have been raised by your health care providers" over the past two years.

'Meaningful use' rules important

Dr. Reid Conant, chief medical information officer at Tri-City Emergency Medical Group in Oceanside, Calif., believes the meaningful use rules will improve health care quality and streamline workflow. But he's concerned hospitals will struggle to meet the criteria because they lack the necessary IT resources or because they have trouble understanding how to properly implement certified vendor products.

While vendors may achieve meaningful use certification for their software and systems, hospitals still have to roll those systems out in a way that meets government standards.

"For example, if you implement an application but you don't design it to meet the five rules for clinical physician support, the hospital won't meet the [government] measure," Conant said. "A lot of this will come down to customization of these applications."

Conant is also concerned that the interim rules don't require a "plain language" physician narrative as part of a patient's electronic copy of their discharge instructions.

"What they're looking for is the encapsulated distillation of what physicians did and what their plan is going forward. Can that be summed up in list of data elements? No way," he said. "It needs to be digestible and understandable by provider."

Conant, who is a big proponent of voice-recognition technology for what are called "subjective, objective, assessment and plan" (SOAP) notes, wants to see the interim rules address the need for narrative texts in EHRs. In other words, treatment should be spelled out in simple English.

The writing of SOAP notes is a basic skill taught to medical students as a standardized method of submitting medical entries in records that can then be shared with other care

providers. "If they did require a physician narrative, all clinicians would be thrilled," said Conant, who uses Dragon Medical speech recognition software from Nuance Communications Inc.

Denver Health pushes ahead

Denver Health is among thousands of health care providers nationwide that are finding it a struggle to roll out EHRs, mainly because government guidance is lacking. Along with two jail clinics and a 100-bed drug and alcohol detox facility, Denver Health's system includes 10 family practice clinics located in Denver's poorest neighborhoods. Veltri said 47% of Denver Health's patients are uninsured.

He believes that the deadlines envisioned by federal officials are forcing health care systems to roll out disjointed technology, just so they can qualify for federal reimbursements.

"What we're doing is slamming systems in to meet deadlines and to get money," he said. "I think that goes against what physicians are all about, and that's to take care of people. Physicians believe they're sacrificing quality to meet monetary goals that they can't pass up."

Veltri's IT department supports 480 software applications and almost 6,000 desktop computers. "It's all integrated," he said. "We have 130 integration points. All those inter-relationships are what break when you go too fast on this EHR rollout."

He offered an example to explain the complexity of the changes to health care being envisioned. "What's due in October 2013 is the change to [ICD-10 coding](#)," he said, referring to the standards set by the World Health Organization for coding injuries, diseases, symptoms and patient complaints. "For me, that's 27 systems that need to be upgraded.

"Those upgrades will consume our 2011 budget and all of our resources," he said. "So I have to be done or I can't fund the projects. You really have to look at what you're asking these IT departments to do."

Apart from ICD-10, Veltri said he must also meet new transaction standards that cover medical claims and remittances under the Health Insurance Portability and Accountability Act (HIPAA), and he has to roll out new ambulatory and inpatient electronic medical record (EMR) systems. Otherwise, his operation won't meet the government's meaningful use criteria by 2013 -- and won't receive reimbursement for the work it has work.

"Normally, all that would be three or four years' worth of projects from a funding standpoint," he said.

Veltri said his organization is well on its way to implementing EHRs and has already installed a computerized physician order entry system. But he worries about smaller physicians practices and rural hospitals with little technical support.

"Where are they going to get the expertise without partnering with facilities like mine to do security and virtualization of servers and fault tolerant failover of clustered servers?" he said. "I have dedicated teams that do that. You look at some of these 100-bed hospitals, and they have like five IT people. I have five IT people just for security. So that's kind of scary."

Physician pushback

One common refrain from those who have pushed ahead with EHR systems is that [many physicians and nurses resist the technology](#).

Pushback from doctors and nurses was Veltri's single biggest hurdle. "We thought everyone browsed the Internet at night and used a BlackBerry, and that a computer mouse wasn't a frightening tool," he says. "What we found out was that nurses don't even answer their e-mails. E-mail applications are foreign to them. They're just used to doing everything on paper."

Once clinical staff warmed up to technology, however, there was no looking back, Veltri said.

In November, Denver Health completed an 18-month rollout of Soarian Clinicals workflow technology for nurses from Siemens Medical Solutions USA. The software helps nurses coordinate tasks, synchronize patient handoffs, speed up communications, and provide automated assistance for the processes.

"With Soarian, they loved the [user interface] and off they went," he says. "The product has an embedded rules engine that allows you to guide workflows based on data inputs coming in. It's like a rules engine on steroids."

Denver health also involved the nurses themselves. Over the 18-month rollout, the nursing staff put in 7,000 hours helping to shape the deployment and learning to use it, he said.

Veltri is hoping a smoother workflow will boost patient care and drive bigger Medicaid financial reimbursements by ensuring that forms are properly filled out.

Deadline pinch-point

Sue Reber, marketing director for the nonprofit Certification Commission for Health Information Technology (CCHIT), said that in some ways the EHR legislation creates a pinch-point. That's because HHS agencies are allowing time for deliberative rule-making, but reimbursements for EHR technology will begin this October, when the government's fiscal 2011 starts. That doesn't allow for enough time to digest the rules, roll out the technology properly and seek federal money to pay for it.

Reber noted that while reimbursements for the completion of Phase 1 of an EHR implementation can start as late as 2014, "the later you start, the less money you'll get -- and the bigger hurdle you'll have to get over in 2015 and 2016 to avoid penalties."

EHR implementations are far more complicated for hospitals than for doctor's offices, because they aren't all-inclusive bundled systems. Hospitals use piecemeal technology that's rolled out department by department and requires integration. And since many hospitals won't just rip and replace their existing IT infrastructures, they'll be forced to integrate new physician and nurse documentation systems, computerized order-entry systems and relational databases with their existing systems.

Most hospitals began using health information technology far earlier than smaller health care operations, but they purchased that technology by department. For example, a hospital might have implemented a patient admission system for its front office; a patient transfer system for its departments; separate administration systems for its emergency room, laboratory, pharmacy and radiology departments; and a separate physician order-

entry system. All those systems may have come from different vendors and, on top of that, many hospitals customize their own software.

The CCHIT is currently the only organization accredited by HHS to certify EHR systems for meaningful use, although federal health officials are working on new rules for accrediting organizations that can certify EHR systems.

According to Reber, physicians who have never purchased EHRs are looking at a 12-to-18-month period after deployment before they'll have enough data to meet meaningful use requirements for reimbursement.

"If you aren't at least evaluating some EHR products and talking to your peers about this, you're going to have a difficult time getting all of your reimbursement payments," Reber said. "And you may even get yourself into the penalty phase."