

Obama's \$19 Billion Boon to Health Care IT: Mammoth Investment Fasttracks Electronic Health Records

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Proponents of “wiring” the nation’s hospitals and doctors’ offices could be forgiven for feeling a little bit giddy as they watched President Barack Obama sign economic recovery legislation that earmarked \$19 billion (with a “b”) for their obscure, geeky piece of the health care landscape.

The legislation is the nation’s single biggest investment in computerizing the health care system. The law’s approval suddenly threw health care information technology (IT) into the nation’s headlines, forcing politicians and journalists alike to get up to speed in a hurry on terms like “interoperability” and “comparative effectiveness.”

For those in clinical informatics – the current lingo for the people within hospitals and physician practices who use IT to manage patient care—the huge infusion of cash raises the ante on a goal they’ve been promoting for years but might never have really expected to see—for every American to have an electronic health record by 2014.

The money doesn’t come flowing out of a big pipeline directly from Capitol Hill, however. It will be meted out in smaller amounts, starting in 2011, as incentive payments through the Medicare and Medicaid systems. Physicians can earn up to \$44,000 and hospitals up to \$6 million each, providing they show “meaningful use” of an electronic records

system. “Meaningful use” has yet to be defined in detail, nor is it clear exactly what is included in electronic records—whether items such as clinical decision support and computerized physician order entry will need to be in place to qualify.

CARROT AND THE STICK

Just as significant as the big carrot is the law’s big stick—in 2015, any hospital participating in Medicare that does not meet the electronic records use standard will be penalized a percent of their reimbursements through the federal programs, with similar penalties being phased in for physicians.

All of this puts tremendous pressure on a computerization effort that has proceeded in fits and starts, with great enthusiasm and accompanying conflict, resentment and occasional outright rebellion. Anyone who has witnessed the rollout of a hospital’s new IT system (which includes the physicians and staff members at most large US hospitals) can attest to how painful the process can be, from the endless planning meetings to the litany of complaints when users have to change the way they do their jobs. The most oft-cited example is Los Angeles’ Cedars-Sinai Medical Center computer physician order entry system, whose alleged lack of usability when first introduced in 2003 prompted physicians to simply refuse to use it. The hospital is now working toward physicians using the system, but more slowly.

Not all implementation efforts are ill-fated, and much has been learned over the past decade about how to do them better. The major lesson is to avoid focusing too much on the software itself, and instead place much of the organization’s efforts into studying the workflow of nurses, doctors and other caregivers, designing the technology to enhance daily work rather than impede it. The ultimate goal of most health IT projects is to make medical care safer for patients, more efficient, more consistent with medical evidence and more easily trackable for both internal quality improvement purposes and reporting to payers and the public.

So as the nation’s IT vendors and health care providers ready themselves to spend a substantial wad of taxpayer money, some worry that there’s too much attention being paid to the technical task of installing medical records software throughout the health care system. The whole point, they say, is really to meet those other, harder-to-reach goals—higher quality care with less waste.

“The goals of IT in health care are to improve health care even though sometimes we get a little too caught up in the technology,” says Bill Hersh, MD, professor and chairman, department of medical informatics and clinical epidemiology at the Oregon Health & Science University in Portland.

But you can’t get there without computers, says Wes Rishel, vice president for IT consultant Gartner Group, and a former member of the panel that certifies health IT systems. “You can’t fix what you can’t measure,” he says. “Life would be a lot easier if they were able to condition those incentive payments on actual improvements in quality or safety as opposed to this interim step of getting electronic medical records in use. But you have to walk before you can run.”

The actual logistics of wiring so many medical offices so quickly is also a matter of debate. Software vendors may be hard-pressed to ramp up for so many new clients so quickly. This is more an issue for physician offices and smaller community and rural hospitals that have not yet purchased electronic records software. Some of these logistical problems may be solved for physicians, particularly if they get systems through aggregators or through their community hospitals.

“That’s where there’s going to be a big crunch to get things installed,” says Pam McNutt, senior vice president and chief information officer of Methodist Health System in Dallas, Texas. “A lot of them will be looking to hospitals to help.”

IT WORKFORCE OR LACK THEREOF

There’s also the question of the health care IT workforce. Hospitals have already reported being hamstrung by a lack of qualified information systems staff, particularly in rural and small hospitals that have trouble competing for technical people familiar with the health care industry. Even more hard to find are clinical informaticists—often nurses, doctors or other caregivers who have been trained in information systems and are now in high demand to help health care organizations make computers work for them.

Dr. Hersh has estimated that it would take an additional 40,784 IT professionals to move the entire US health care system to higher levels of adoption. The research, published in the American Medical Informatics Association’s Annual Symposium Proceedings in November 2008, estimates there are 108,390 total IT professionals now working in health care.¹

The next step—actually making the systems work for physicians and nurses in their daily lives—is also a challenge. According to a study of clinical information systems in 8 major medical centers released in January by the National Research Council, surprisingly few systems are coming close to reaching their potential. The big problem, the panel concluded, is cognitive—the systems are simply not usable enough by real human beings. They “offer little cognitive support; clinicians spend a great deal of time sifting through rather large amounts of raw data (such as lab and other test results) and integrating it with their medical knowledge to form a whole picture of the patient,” says the report, *Computational Technology for Effective Health Care*, issued by a panel of the National Research Council’s computer science research group. Care providers are using IT systems because regulations require it or to avoid legal

liability rather than to improve patient care, the panel found.²

Ideally, the report said, “IT systems would place raw data into context with current medical knowledge to provide clinicians with computer models, ‘virtual patients,’ that depict the health status of the patient, including information on how different organ systems are interacting, epidemiological insight into the local prevalence of disease, and potential patient-specific treatment regimens.” To get there, the National Research Council panel concluded, IT vendors, hospitals and the government need to focus on measurable improvements in the quality of care and avoid programs that focus strictly on adoption of specific clinical applications. In other words, it’s not all about being the first hospital on your block to have a computer physician order entry system—it’s about measurably reducing medication errors taking into account both what software can do and how to maximize human workflow.

There are some hospitals that have succeeded in making substantial improvements in quality and safety, Rishel says. “Software was a key capability in doing that,” he says, adding: “But it was just as important that the senior leadership of the organization was committed to it . . . [and] anticipated the real challenge of culture change, that taking this on is an overall corporation-wide project, not just an IT project.”

Meanwhile, it is hoped that the health IT revolution will save money in a big way. Politicians are making a lot of promises about the cost savings that health IT can provide – savings they are counting on in part to pay for the big-ticket health care reform proposal on the Obama administration’s fast track for action in 2009. Even the usually cautious Congressional Budget Office has estimated that conversion to electronic medical records could save \$34 billion over 10 years.

IMPACT ON EDs

Emergency physicians encounter electronic medical records almost exclusively in the hospital. In some places, the ED has actually been wired earlier than the rest of the institution, partly because of pressure to better track patients using electronic white boards. In

What’s in the ARRA for Health Care Information Technology (\$19 Billion Out of a Total \$789 Billion Law)

\$17 billion to encourage Medicare and Medicaid providers to use HIT

An additional \$2 billion is directed to the Office of the National Coordinator of health IT (ONCHIT). This includes:

- \$300 million to support efforts toward health information exchange
- \$20 million to the National Institute of Standards and Technology (NIST) for continued work on advancing health care information enterprise integration
- Competitive grants to states and Indian tribes for the development of loan programs to facilitate the widespread adoption of certified EHR technology
- Development of a plan for “the utilization of a certified electronic health record for each person in the United States by 2014”
- Immediate grants and loans to strengthen the HIT infrastructure
- Support for moderate revisions in privacy and security policy; coordination of federal health IT activities, infrastructure and tools for the promotion of telemedicine, including coordination among federal agencies; development and promulgation of standards; the promotion of a broader HIT workforce; and at least a dozen other activities specified in the language of the bill.

Other funding related to health IT includes \$1.1 billion to support clinical effective research of therapies and devices, including an additional \$400 million for programs under the NIH and \$400 million to the Department of Health and Human Services (DHHS). Numerous specifications in the ARRA are not associated directly with budgetary amounts but will, nonetheless, affect health care organizations and governmental organizations. Some examples include:

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- Each agency of the federal government is required to use federally recognized HIT standards in purchasing and upgrading systems. Agencies must require contractors to use these standards for information exchanges related to their contracts.
- The president must ensure that federal activities involving the broad collection and submission of health information are consistent with federally recognized HIT standards.
- HIPAA is strengthened and applied to previously noncovered entities:
- An individual will now have the right to get an electronic copy of his protected health information; previously, providing paper copies would fulfill the disclosure requirement.
- Security and privacy provisions, and the associated penalties, now apply directly to business associates and must be included in business associate agreements.
- Limits on multiple HIPAA monetary penalties in a single year are substantially raised if the violation is willful or the entity subject to the penalty fails to make corrections; some penalties could exceed \$1 million.
- The requirements are extended to include notification of breaches to the affected consumer, the Federal Trade Commission (FTC) and third-party suppliers; penalties will be exacted by the FTC as for other unfair trade practices.
- The Department of Health and Human Services secretary is required to pursue investigations of willful violations.
- Civilian monetary penalties that are collected will go to the Office for Civil Rights to fund enforcement activities.
- Within 3 years, some portion of monetary penalties collected under HIPAA should go to the harmed individual. HIPAA compliance may be pursued by actions of state attorneys general.
- The Department of Health and Human Services may pursue monetary penalties if the Department of Justice does not.
- Vendors of PHRs and their business associates must also provide notification of breaches, as described here.

Source: Early Analysis of the Impact of the ARRA on U.S. Healthcare IT, Wes Rishel, Gartner Group, Feb. 18, 2009.

Portland, Oregon, for example, the Oregon Health & Science University hospital recently installed an Epic electronic record throughout the hospital, where the ED had already been wired for 16 years. Daniel Handel, MD, MPH, director of clinical operations in the hospital's ED who helped oversee the ED end of the transition, says most other hospitals in the area have ED systems even if they lack them hospital-wide.

National estimates are harder to come by. A recent study of Massachusetts hospitals suggest that while many EDs may have taken steps to get computerized, they are not necessarily using many of the capabilities their software provides.

The study, by Daniel J. Pallin, MD, MPH, and colleagues in the ED of Brigham and Women's Hospital in Boston, surveyed 61 non-federal EDs. Of them, 90% received lab results electronically, 82% had electronic discharge summaries, 64% could obtain radiographic images from a patient's previous visit, 51% could track patients electronically and 49% could make notes on an ED visit. A smaller percent were using electronic medication ordering (15%), medication error checking (11%) or clinical reminders (17%).³

Meanwhile, the federal recovery act also addresses privacy and security of electronic records. There is some concern about the security piece – Health and Human Services must write regulations that require providers to be able to provide to any patient who asks a three-year accounting of who has seen their electronic health record. McNutt hopes the regulation's ultimate language doesn't turn that into an onerous requirement.

Action under the act gets under way fairly quickly, assuming there is a secretary of Health and Human Services available to oversee the effort and put new appointees in place in the upper echelons of the agency.

The Office of the National Coordinator for Health IT (ONCHIT), which receives \$2 billion of the money, must issue a strategic plan within 90 days, which places the deadline in mid-May.

Another deadline requires an interim rule on technical standards to be issued by the end of 2009.

"It gives us a running start," says Sharon Canner, senior director of advocacy programs for CHIME, the association of health care CIOs.

A certain amount of work will also be undertaken in states, which are being given some grant money to dole out as well, in part through low-cost loan funds to provide funding for certain hospitals and physician practices that can't afford to pay up front for information systems.

There is also funding and a mandate for the national coordinator to move ahead on health information exchange in specific metropolitan areas.

Canner acknowledges that even with a running start, the goals in the recovery act will be challenging to meet given the current state of software and organizations' abilities to implement it. Risher predicts that even with \$19 billion of government money, it will be a good decade before useful quality and safety information is flowing out of hospitals.

Still, government's commitment to computerizing the industry had to start somewhere, Canner argues. "We are spending a lot of money (on health care) and we're paying for mistakes and bad quality," Canner says. "These are the IT tools we have in place . . . to stop duplicative testing, to improve quality and deal with costs. If you wait for it to get perfect you'll be waiting another 10 years to get started."

The huge price tag, coming at a time of economic recession, puts added pressure on IT professionals to get it right. "There's definitely a lot of risk here," says Dr. Hersh. "Some people in informatics are nervous because if this goes wrong it could go wrong in a big way."

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