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Harvard study: Computers don't save hospitals money

Hospital computer systems are often built for administrators, not doctors

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November 30, 2009 (Computerworld) A Harvard Medical School study that looked at some of the nation's "most wired" hospital facilities found that computerization of those facilities hasn't saved them any money or improved administrative efficiency.

The recently released study evaluated data on 4,000 hospitals in the U.S over a four-year period and found that the immense cost of installing and running hospital IT systems is greater than any expected cost savings. And much of the software being written for use in clinics is aimed at administrators, not doctors, nurses and lab workers.

The study comes as the federal government prepares to begin dispensing $19 billion in incentives for the health industry to roll out electronic health records systems. Beginning in 2011, the Health Information Technology for Economic and Clinical Health (HITECH) Act will provide incentive payments of up to $64,000 for each physician who deploys an electronic health records system and uses it effectively.

The problem "is mainly that computer systems are built for the accountants and managers and not built to help doctors, nurses and patients," the report's lead author, Dr. David Himmelstein, said in an interview with *Computerworld*.

Himmelstein, an associate professor at Harvard Medical School, said that in its current state, hospital computing might modestly improve the quality of health care processes, but it does not reduce overall administrative costs. "First, you spend $25 million dollars on the system itself and hire anywhere from a couple-dozen to a thousand people to run the system," he said. "And for doctors, generally, it increases time they spend [inputting data]."

Himmelstein said that only a handful of hospitals and clinics realized even modest savings and increased efficiency -- and those hospitals custom-built their systems after computer system architects conducted months of research.

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He pointed to Brigham and Women's Hospital in Boston, Latter Day Saints Hospital in Salt Lake City and Regenstrief Institute in Indianapolis as facilities with some success in deploying efficient e-health systems. That's because they were intuitive and aimed at clinicians, not administrators.

Programmers of the successful systems told Himmelstein that they didn't write manuals or offer training. "If you need a manual, then the system doesn't work. If you need training, the system doesn't work," he said.

While many health care experts believe that computerization will improve quality of care, reduce costs and increase administrative efficiency, the Harvard Medical School report notes that no earlier studies closely examined computerization's cost or its effect on a diverse sample of hospitals. Even hospitals on the "most wired" list "performed no better than others on quality, costs, or administrative costs," the study found.

Himmelstein and his team of researchers pored over data on computerization at approximately 4,000 hospitals between 2003 and 2007 from the Healthcare Information and Management Systems Society, along with administrative cost data from Medicare Cost Reports and cost and quality data from the 2008 Dartmouth Health Atlas.

Himmelstein, who was once the director of clinical computing at Cambridge Hospital in Massachusetts, wrote that the misconception that computerization brings cost savings in hospitals is not new. He pointed to ads by IBM and Lockheed Corp. from the 1960s and 1970s touting computerization as a way to reduce paperwork and improve health care. In the 1990s, experts also espoused the benefits of computerized patient records, saying they would be adopted quickly and yield huge administrative savings.

In 2005, one analyst group projected annual savings of $77.8 billion through computerization; another predicted more than $81 billion in savings, as well as a big improvement in health. Today, the federal government's health information technology Web site proclaims that the "broad use of health IT will: improve health care quality; prevent medical errors; reduce health care costs; increase administrative efficiencies; decrease paperwork; and expand access to affordable care."

"Unfortunately," Himmelstein's report reads, "these attractive claims rest on scant data. A 2006 report prepared for the Agency for Healthcare Research and Quality, as well an exhaustive systematic review, found some evidence for cost and quality benefits of computerization at a few institutions, but little evidence of generalizability. Recent Congressional Budget Office reviews have been equally skeptical, citing the slim and inconsistent evidence base."

David Brailer, who served as the nation's first health information czar under President George W. Bush, noted in an interview with *Computerworld* earlier this year that 25% to 35% of the nation's 5,000 hospitals use or are in the process of rolling out computerized order-entry and medical records systems.

Brailer, now chairman of Health Evolution Partners, a San Francisco-based investment firm that specializes in funding health care providers, headed the Office of the National Coordinator for Health Information Technology from 2004 until 2006.

Implementing e-health records nationwide would cost between $75 billion and $100 billion, Brailer said, adding that individual hospitals "will have to make sizable, potentially multi-hundred-million-dollar budget commitments." Still, he said a fully functioning national electronic health system could reduce U.S. health care costs by $200 billion to $300 billion annually by cutting down on duplicate records, reducing record-keeping errors, avoiding fraudulent claims and better coordinating health care among providers.

Himmelstein called those claims "unsupported."

"For 45 years or so, people have been claiming computers are going to save vast amounts of money and that the payoff was just around the corner," he said. "So the first thing we need to do is stop claiming things there's no evidence for. It's based on vaporware and [hasn't been] shown to exist or shown to be true."