Electronic Records Can Yield Business Payoff

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WASHINGTON — Electronic health records make good business sense for physicians, even for those in small- and medium-sized medical groups, Stefanos Zenios, Ph.D., said at a health care congress sponsored by the Wall Street Journal and CNBC.

"There is a perception that there's no business case for adopting electronic health records in small or midsize medical groups," said Dr. Zenios, professor of operations, information, and technology at Stanford (Calif.) University. However, that's not the case if one considers the economic data carefully, he said.

Like any other investment, electronic health records (EHRs) have both short-term and long-term costs. "Initial costs are $43,000 per full-time equivalent [FTE], including software and hardware and productivity losses," he said, citing a recent study (Health Affairs 2005;24:1127-37).

However, the same study also showed an $18,000 increase in revenue per FTE due to better billing and better follow-up on patients, he added. And by the fourth year, the return on investment is 31%.

"If you would take all money you are spending to install and maintain the system, and put it in the bank, on average you would be making 5%-7% [in interest]. Even if you put it in the stock market in the 1990s, you would be making 10% on that money ... not even the venture capitalists can see returns as high [as 31%]. So that's a compelling financial case, which primarily comes from better billing," he said.

Better data mining is another way practices can increase revenue. For instance, one 26-member cardiology group in North Carolina used EHR data to look for patients at risk of sudden coronary death. Out of 80,000 patient records, they found nearly 300 patients who were candidates for primary prevention and more than 1,400 patients who were candidates for secondary prevention.

This then translated into more than 1,300 consultations, 900 echocardiograms, 500 T-wave tests, and 500 implantable cardioverter defibrillator implantations. That had a clinical impact of averting 37 sudden cardiac deaths each year, and a financial impact of $2.8 million in additional revenue to the practice, Dr. Zenios said.

In one study, an investment of $43,000 per full-time equivalent produced an $18,000 increase in revenue per FTE due to better billing and better follow-up.

Finally, those who are early adopters of EHRs can put practices at a competitive advantage. Dr Zenios cited another study that showed EHRs could bring a total estimated savings to the entire health care system of $245 billion. Of that, an estimated $23 billion would come in the form of fewer physician visits (Health Affairs 2005;24:1103-17).

In the face of this possible reduction in business, if all small- and medium-sized medical practices invested in EHRs, no one's share of the shrinking outpatient market would change, Dr. Zenios said. But if only some groups invested in them, "they would gain an advantage" because of increases in practice efficiency, while their competitors' market share will go down. "To protect your business, it may make sense to have an EHR."

Like any other investment, installing an EHR is not risk-free, Dr. Zenios warned. He offered several suggestions to help physicians better manage the risks involved:

► **Redundancy, redundancy, redundancy.** "People put a new information technology system in place, and the next morning they turn off their previous system," he said. "It doesn't make sense. It's costly to have both systems in place, but that protects you. For 3-6 months, there has to be some redundancy."

► **Assess the ability of the system to improve your billing processes.** For example, the system may be able to flag procedures for which physicians are routinely underbilling and bill them at the proper level.

► **Assess the system's capability to take advantage of all the data that are going to become available.** "Some innovative practices are using this capability to deliver better quality of care to their patients and improve their revenue," he said. ■