

The Globe and Mail Thursday, February 22, 2007

Will Canada click its way to better health?

Switch to e-records lags behind other countries

BY SIMON AVERY
TECHNOLOGY REPORTER

After more than 20 years as a family physician, Michelle Greiver questions why Canadians can access their bank accounts 24 hours a day, seven days a week, but when they go to the hospital after hours, their medical records are unavailable.

She is among the minority of the nation's doctors who are trying to do something about the health care system's archaic processes, which by one estimate are causing as many as 24,000 unnecessary deaths each year.

Last year, she began collecting and storing patient data on computers. This year she sold her filing cabinets and expects to discard the last paper chart in her Toronto office.

Already, every one of her patients in for a check-up receives a printout of their medical profile. It's especially useful for the elderly with chronic conditions who are taking many pills, and she tells patients to take the information with them if they have to go to the hospital.

"I don't think Canadians should accept anything less," she says.



Dr. Michelle Greiver earlier this year spent \$30,000 to install up-to-date hardware and software in her Toronto office. (Philip Cheung/For The Globe and Mail)

Unfortunately, most are forced to. In Canada and abroad the medical industry is years behind most other industries in embracing information technology.

In the financial sector, for example, companies allocate somewhere between 6 and 10 per cent of their spending for IT.

In Canadian health care the figure is less than 2 per cent.

As a result, more than 90 per cent of physician visits in Canada involve paper and most prescriptions are handwritten, according to Canada Health Infoway, a group comprising the 14 federal, provincial and territorial deputy health ministers that provides guidelines and standards for IT adoption.

Even those doctors that have gone electronic cannot send prescriptions to pharmacies over computers, or connect into the networks of local hospitals, which themselves don't link to other hospitals.

Switching to electronic patient records is considered merely the first step in the massive undertaking of moving the medical establishment into the 21st century.

Electronic medical records could provide a historic account of all a patient's medical information. A central database for drug information could include patient reaction data, which doctors could scour for patterns with analytical software. Another type of software exists to analyze medical images for abnormalities. Wireless systems could be set up to monitor patients in hospitals and remotely at home. Computerized order entry systems exist to allow doctors to enter procedures and tests straight into a computer, improving both accuracy and efficiency.

Proponents of the technology say it would save thousands of lives and billions of dollars annually.

"Today we have documented evidence that because physicians at times just don't have the right information, we have between 9,000 to 24,000 deaths -- a lot of that caused through adverse drug interaction," says Richard Alvarez, president and chief executive officer of Canada Health Infoway. "Sadly enough, a lot of that is preventable."

Big IT companies remain frustrated by the many obstacles unique to the medical sector, including the difficulty in establishing standards. But they are intensifying their sales efforts, hiring medical experts and even banding together to exert pressure for reform.

Dushan Batrovic, an analyst with Canaccord Capital Inc., says a number of factors are "converging to establish health care as perhaps the single biggest market opportunity for technology companies today."

The strongest drivers are in the U.S., where runaway health insurance premiums are motivating large employers to take matters into their own hands. Last month for example, five of the nation's biggest corporations, including Wal-Mart Stores Inc., announced plans to give their employees electronic records.

The fundamental building blocks have already reached the mass market, he says. They include high-speed networks, Intranets and wireless information systems. Better still, today's technology is sophisticated enough to be adopted by the health care industry off-the-shelf, he says.

"The tipping point is approaching," he says.

There is a host of improvements that IT companies can offer the health care industry today, Mr. Batrovic says.

Intel Corp. has been one of the most outspoken tech giants on the issue of bringing IT to health care. Its chairman, Craig Barrett, has publicly criticized the health industry for not modernizing its ways with IT. In the U.S., Intel has formed a health care alliance with Cisco Systems Inc., GE Healthcare, IBM Corp., Motorola Inc., Samsung Electronics Co. Ltd. and others.

"One issue is how quickly we can get physicians on board," says Doug Cooper, head of Intel Canada Ltd. The medical associations in Canada are behind their targets, but the tech industry must make sure it packages what it sells properly. "Selling them a PC is not enough. They need connectivity to the Internet, as well as security and training."

To put the fundamentals in place in Canada will cost between \$10-billion and \$12-billion, or about \$300 per Canadian, according to a study by the consulting firm Booz Allen Hamilton Inc.

But the returns would be enormous, amounting to about \$6-billion a year, in the form of improved quality of care, better safety and greater productivity, Mr. Alvarez says.

Infoway's mandate is to provide a fully interoperable electronic health records for half of all Canadians by 2009, and the Health Council of Canada has called for full coverage by 2010. But in a presentation last year, the two groups concluded that "based on performance to date, these are enormously ambitious and, perhaps, unachievable goals."

The problem is that a multibillion-dollar investment in information infrastructure doesn't sell votes the way new equipment such as MRI machines do.

"Funds are limited and there's still doubt that investing in IT will improve patient outcomes," Mr. Cooper says.

But the government and medical industry level are more closely aligned today than they have ever been, he says. "We have never been in a better position than we are now. But policy makers need to believe that this is important and that patient outcomes can be improved."

Dr. Greiver admits there is an upfront cost for doctors adopting technology. For the first three months she was operating at 70 per cent effectiveness as her office learned how to use the technology. But at nine months she and patients began to see a benefit. When a patient arrives, for example, the computer alerts the doctor to overdue tests such as pap smears and mammograms.

"It helps me be more comprehensive -- not to miss things," she says.