

>> Canada has been working towards greater exploitation of electronic approaches to health IT for over a decade. But has its deliberately cautious, localised approach been too slow – even risking failure, long-term?

In many ways, Canada, the world's second biggest country by area, is a global leader in the effective use of technology in its public health system. Almost all X-rays, MRIs, CTs and other imaging tests in its hospitals are now filmless, which equates to adding the equivalent of up to 500 radiologists and 11 million more exams annually. Drug information systems are now being used in about half of Canada's emergency rooms and one-third of community pharmacies, thanks to telehealth patients saved 47 million kilometres of travel in 2010 alone and access. productivity and quality benefits are valued at \$CAN6.2bn (€4.5bn) since 2008.

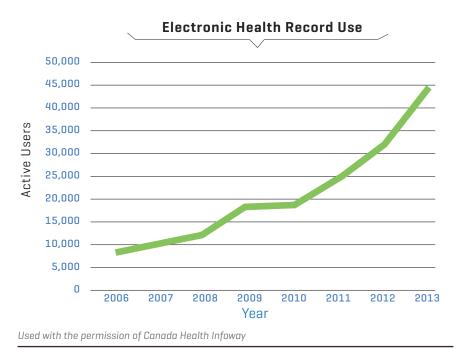
Most of these benefits can be laid at the door of the country's carefully non-intrusive approach to rolling out eHealth. Unlike other countries, notably the UK, for instance, which under its National Programme for IT attempted a 'top-down,' national approach to computerisation, the land of the Maple Leaf has always tried to do this in a 'bottom up,' regional way.

That approach is led by Canada Health Infoway - an independent, not-for-profit initiative funded by the country's Federal government and set up in 2001 that's attempting to foster wider take-up of information and communications technology in the country. Promising secure systems

able to provide clinicians and patients with the information they need to better support safe care decisions and manage their own health, Infoway is strictly co-operative, looking to invest and work with each and every one of Canada's ten Provinces and three Territories.

The organisation says the bulk of its work over the past decade has concentrated on digital health investments in electronic health records and point-of-care systems for clinicians. These include solutions that, it claims, securely house critical data including patient drug information, diagnostic images and lab test results - all of which has

>> Figure 1 depicts the number of active users with access to two or more integrated provincial data sets (e.g., lab information system, drug information system, diagnostic imaging repository). Active users are health care professionals who have accessed the system a minimum of one time per month or three times per quarter. This graph does not depict the number of users of individual data assets that are not integrated with other systems.



resulted in 'billions of Canadian dollars' worth of health system efficiencies, improvements in access, and gains in quality of care.

However, while most observers feel there has been progress via this de-centralised process, not everyone is convinced Infoway fact that 20 years into the digital era, "the number of Canadians with any sort of electronic connection to health providers remains almost negligible" – and that even the most basic eHealth services such as electronic communication of prescriptions between physicians and pharmacists is "rare."

## "Each province is working towards the goal of a national interoperable electronic healthcare record"

is meeting all expectations. A sceptical headline in Toronto's The Globe And Mail newspaper from last November may sum up the experience of many Canadians: "After all the time and money invested, will e-health ever deliver on its promise?" The article went on to bemoan the

## IS THE LOCALISED APPROACH CANADA IS INSISTING ON TAKING TOO LONG?

"Developments within [Canadian] healthcare IT are fragmented across regions, with some parts of the country doing much better than others," claims Jacques Lirette,

Canadian Regional Director of an enterprise search firm called Perceptive Software.

"Each province is working towards the goal of a national interoperable electronic healthcare record," he adds. "But progress varies by Province. Some are launching ahead with this, whereas others don't necessarily have the funding to invest in this blueprint and the priority is more to improve systems, rather than overhauling them." This is because, he points out, pressures are mounting to reduce costs due to the ongoing economic downturn, with the country's East Coast in particular "struggling somewhat" and facing greater challenges in trying to find healthcare economies.

"Each Province has a lot of autonomy in deciding how to approach health IT reform and development," confirms Professor Samer Faraj of the Desautels Faculty of Management in Montreal.

Faraj, who holds the Canada
Research Chair in Technology and
Management in Healthcare and whose
current research interests focus on
how IT transforms work and the
provision of healthcare, adds that, an
unfortunate side effect of that
decision, despite "lots of effort and
funding," is a fragmented system
that runs real risk of long-term
interoperability challenges once
systems are rolled out.

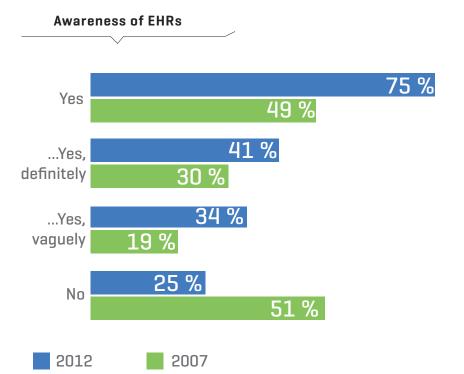
It has also meant, in his view, Canada "clearly lags behind the US" in terms of use of hospital information technology solutions.

## CONSOLIDATION ALSO ACTING AS A BRAKE ON DEPLOYMENT?

Canada, despite being one of the world's biggest economies, still has to shake off the lingering effects of the global economic recession, it seems. And a clear effect of this slowdown,

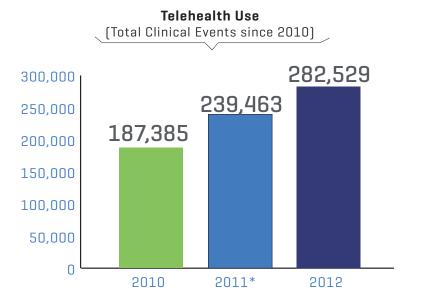


>> Figure 2: Awareness of electronic health records has risen significantly over the past five years - up more than 50% from 49% to 75% over the period.



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>> Figure 3: The use of telehealth is clearly on the rise.



\* Estimated value based on data provided by the Ontario Telemedicine Network. Source: pan-Canadian Telehealth Survey 2010 and 2012 -Canadian Telehealth Forum of COACH

according to Lirette: consolidation, which is leading to a slow decision cycle. "In a Province where you might previously have had seven or eight health delivery systems, now you

might just have one," he told HIMSS Insights.

"This has a major impact on the technology sector; where there were multiple hospital information systems, Provinces are now migrating towards one common system and the time for delivery is proving longer due to added complexity. As a result, we're seeing IT resources allocated towards consolidation, as opposed to new system rollouts."

Still, according to both Lirette and Faraj, there are undeniably positive signals in Canada's move to greater use of IT in health. There has been a definite recent increase in information sharing, for example, thanks to the Infoway's initiative to help speed up the adoption of electronic healthcare records by creating a platform where clinical data is available jurisdiction-wide, claims the former.

This, he says, enables hospital systems to feed into clinical lab, patient and diagnostic repositories. As a result, he predicts, "Investment has been made over the last five years and we will continue to see investments over the next five, along with a further consolidation of services."

Meanwhile, Lirette sees new companies enter the market that didn't previously have a foothold in the Canadian healthcare market. That's of benefit, he believes, as these new players are placing pressure on other vendors and starting to offer health informatics decision makers more choice.

And on another positive note, academic Faraj says Canada may well be a world-beater when it comes to telehealth, where it has built up "significant expertise," especially in areas like remote mental health support, geriatric support and even wound management.

In the long run, too, Canada's decision to take it slow may pay off, he concludes. "We never wanted to be leading-edge with all this, so we could avoid falling into being 'bleeding edge,'" he says. "And while implementation has been slow, the signs are the pace is now picking up." ■