



TELUS President and CEO Joe Natale speaks to the Canada 2020 conference on October 3 on medical records in the digital age. Photo by Fred Chartrand, Canada 2020.

# Leveraging Technology to Revolutionize Canadian Health Care

Joe Natale

*Everywhere we look, technology is transforming health care delivery. At TELUS, technology is connecting more than 10,000 Canadians suffering from chronic disease with their doctors through Remote Patient Monitoring, resulting in a 40 per cent reduction in return visits to emergency rooms. That's just one example of the change revolutionizing Canadians' relationship with health care; a process that, with greater public trust, public-private collaboration and political will, can make Canada's health care system, once again, the envy of the world.*

Using the power of technology to advance the delivery of health care in Canada should excite every one of us who believes that we share a fundamental responsibility to provide a standard of care for Canadians that ranks alongside the best health care systems in the world.

At the recent Canada 2020 Conference, I questioned why it is that I can use Uber to get a car instantly in 200 cities, stream limitless music mixes on Songza, and that my own children can Skype with their friends in three time zones

# Leveraging the benefits of Electronic Medical Records



Canada 2020 Conference • Joe Natale • Ottawa October 3, 2014



Share information quickly and securely.



Enables collaboration across continuum of care.



Gathers data from multiple providers.



Reduces duplicate testing, referrals, and provides access to medical history.

simultaneously, and yet it takes months to schedule an MRI.

Despite our enthusiasm to adopt technology in almost every other aspect of our lives, Canadians have been slow to demand the digitization of our health care system. With constantly overcrowded emergency departments, wait times that are challenging, and the increasing pressure health care costs are applying to the budgets of every province and territory in this country, it's simply not acceptable that we would ignore the remedies technology offers.

Historically, governments believed that they alone were burdened with solving the conundrum of health care and they endeavored to do so through large, multi-year, complex projects that tried to address many problems through a single 'top-down' technical or software solution.

That no longer needs to be the case. Working in partnership in pursuit of our shared goals for health, the health and technology sectors can start small, take a modular approach and add functionality incrementally. Governments can set the objectives,

define the service needs, identify the rate to be paid and then challenge the private sector to deliver the goods. In turn, the private sector will compete to deliver the best, most efficient and most innovative health solutions to help meet the challenge of health care for Canadians.

**E**very family has an unofficial "Chief Medical Officer", a person who takes responsibility for managing the medical history and treatment of loved ones. In my family, I was that person, helping my grandmother through the system, carrying her medical records in a tattered paper file between hospitals and clinics, doctors and specialists, and working to share the latest information about her health with all of them.

This was many years ago and an online health record would have provided great comfort to both our family and our caregivers. I'd like to think that my daughters and our family's care providers will have access to that information when it's needed. But the truth is that today, Electronic Medical Records or "EMRs" have a

penetration rate in Canada of just 57 per cent of physicians.

**Our population is aging. Consider that 75 per cent of seniors with complex needs who are discharged from hospital will receive care from six or more physicians. How will their information be shared between wards, operating rooms, emergency departments, administrative offices, outpatient care?**

That's not good enough. Our population is aging. Consider that 75 per cent of seniors with complex needs who are discharged from hospital will receive care from six or more physicians. How will their information be shared between wards, operating rooms, emergency departments, administrative offices, outpatient care?

Governments across Canada need to drive EMR adoption to 100 per cent of physicians by 2020. They can do that by changing the compensation model for physicians and health

care professionals, linking pay to outcomes that are tracked through EMRs. There are models of success to draw from.

In England, governments have stimulated change by paying a premium to those who attain a level of practice performance that's achievable only through the use of an EMR. Clinicians are encouraged to increase quality of care and technology adoption simultaneously.

It follows then that the next logical question is how to pay for new incentive models, new initiatives or new solutions. Part of the answer lies in taking waste out of the system.

By identifying waste—reducing the number of visits to hospital, mitigating the administrative costs of paper-based systems, automating scheduling, providing access to physicians through email, reducing duplicate testing—and harnessing it as a resource, we can invest in those solutions that will leverage the largest incremental benefit.

It's a win for the system, a win for physicians—and most importantly it underpins improvement in the quality of care for Canadians not just today, but tomorrow and for foreseeable generations.

**T**here has never been a more pivotal time to be in the technology industry. No different than the advent of the printing press, the steam engine or electricity, technology is driving profound and revolutionary change.

When it comes to health care, it's easy to be excited by the possibilities. Google Glass—which hasn't yet entered the consumer market—has a contact lens in development that will use a hairline fibre to measure the glucose levels of a person with diabetes and send the data to their mobile device.

That is incredible. But the innovations that are reality today are equally meaningful.

For example, at TELUS, our technology is connecting more than 10,000 Canadians suffering from chronic

disease with their doctors through Remote Patient Monitoring, integrating devices that measure pulse, weight and blood pressure into a treatment routine at home. The result is a 40 per cent reduction in return visits to emergency rooms.

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In Ontario, doctors are using telemedicine to monitor people with heart problems in communities all over the province, allowing a patient in Cobourg to consult with specialists in Toronto through clinics connected with specialized cameras and devices, saving travel time but more importantly reducing stress for the patient and their family.

In the pharmacy sector, Canadians are refilling millions of prescriptions through our consumer health portal, and the more than 13,000 physicians currently using a TELUS EMR will soon be able to connect with insurance providers to help see a patient's coverage plan and have a conversation about the treatment efficacy and costs in the doctor's office.

These are a few of many examples of the potential realized when we leverage technology for health. Better quality health care, better personalized service, at a lower cost. In B.C. alone in 2012, the government estimated that by helping to reduce medication abuse, reducing adverse drug events, and increasing provider efficiency, their drug information system alone helped save more than \$200 million.

**D**igital health care solutions rely on highly capable, secure wireless networks with extensive coverage and capacity.

Despite our vast and complex geography, our fourth generation networks reach 99 per cent of Canadians. These networks make it possible to bridge time and distance; to deliver information to the point of care; and for patients to be in control of their own care at home. They can provide people with access to their own health records, and make it possible for Canadians in remote communities to have the same quality of care as Canadians who live in urban centres. They connect patients with physicians, physicians with labs, people with their insurance companies and with their pharmacists.

And while the potential impact of technology on health care improvement is revolutionary, its effect on the bottom line is of equal weight.

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**C**anada is trending towards spending almost a quarter of a trillion dollars annually on health care by 2020. A 2011 report by the Fraser Institute indicated provincial health spending in Ontario and Quebec already consumes more than 50 per cent of the total government budget. By 2017, that will also be true for British Columbia, Alberta, Saskatchewan and New Brunswick.

In every province, health care budgets are threatening cash-strapped governments with costs that could cannibalize funding for other critical services like education, infrastructure and public safety.

The truth is that doctors and nurses are trying their very best every day. Our governments are putting every dollar they can into health. But more dollars alone are not enough. Our practitioners are world class but they

can only do so much if they don't have access to the modern tools that drive productivity, accuracy and ultimately customer service. The pain points are all around us. Health care delivery in Canada has to change.

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Today, Canada ranks 7th among 15 peer countries with respect to our medical error incident rate; we have the worst access times to a doctor or nurse when in need of care; the most extreme delays for specialist appointments; and the highest use of emergency rooms of the 11 developed countries compared in the Commonwealth Fund's 2013 International Health Policy Report.

The causes are multifactorial and complicated. But I am optimistic.

I know that today no doctor graduating medical school knows what it's like to grow up without the Internet. This generation of doctors, and every generation that follows, will demand access to the most modern technologies. And I know that today, more than half of Canadian physicians utilize an electronic medical records system. There is forward momentum.

But to move faster, we need to overcome the stigma that lingers around the public sector and the private sector working together in areas of the public interest.

Mismanagement and mistakes in the past have stirred a skeptical public who still find the idea of a partnership between the public and private sectors in health to be discomforting. And in some cases their wariness has been understandable.

But we have taken that tuition value from those experiences and applied it to new ideas for delivery models. Together we will show Canadians that dedicated teams comprised of the public and private sectors can be responsible custodians of their private

history, their sensitive data, can earn and deserve their trust and help them take care of the most important thing that they and their families have—their health.

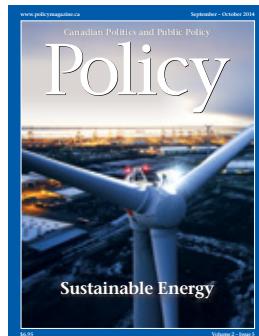
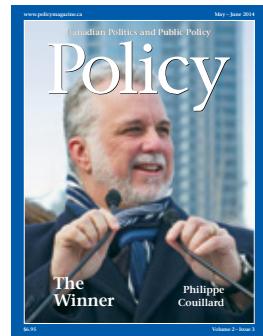
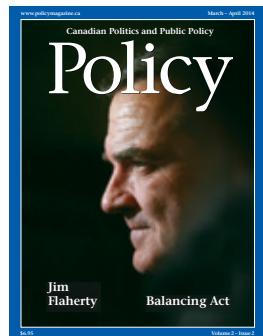
Let's leverage the stable, innovative, and tremendously capable technology sector that has been created over past decades to the fullest extent possible to solve our health challenges. We have the expertise, we have the networks and we have the commitment. Let's take a page from Silicon Valley and make choices with tomorrow in mind.

If we agree that we share the responsibility of addressing the complex challenges of health care, then it follows we should ask ourselves: if we can't respond, then who can? Let us not leave this challenge to the next generation. Let's own it. Together, we can build a responsive, agile and modern health care system that is the envy of the world as it was fifty years ago, ensuring world class health care for all Canadians. **P**

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