VIEWPOINT

What to expect in healthcare technology for 2018

An interview with Dr. Darren Larsen, chief medical officer with OntarioMD.

BY DR. SUNNY MALHOTRA

I recently had the opportunity of speaking with Dr. Darren Larsen. He is Chief Medical Information Officer with OntarioMD, and is a candidate to become President Elect (Nominee) of the Canadian Medical Association. Dr. Larsen has leading-edge insights about the state of medical care in Canada and the application of technologies that could solve current problems.

Dr. Malhotra: What are the biggest areas of opportunity for technology in healthcare today?

Dr. Larsen: I think that artificial intelligence and machine learning are real opportunities. The embedding of evidence-based algorithms into our electronic medical record systems and the introduction of clinical decision support tools will make our decisions stronger and less variable.

This will be a huge advance in the care of our patients. We will need to learn how to trust these systems, and the evidence-base around them.

As we do so, we will find our clinical quality and outcomes can improve. These systems will allow us to involve patients in decision-making. When they are presented with a list of choices with confidence intervals around those choices, we allow them to be active participants in the care being offered to them.

This will build trust, not erode it. Admittedly, this is nascent work, but the technology in this domain is improving quickly and dramatically. There will need to be a strong change management and educational approach around this work. I believe there is a role for the CMA in this, either through the Association or its subsidiary, Joule.

Dr. Malhotra: Where does privacy fit into all of this?

Dr. Larsen: This Big Brotherish idea – of data moving out of EMRs for analytics – scares some clinicians. We will have to work with them closely to ensure they understand the benefits versus the risks. As well, privacy of personal health information must be guaranteed.

There is no room for data breaches or PHI to fall into the wrong hands. This will require both robust technology and strong public policy.

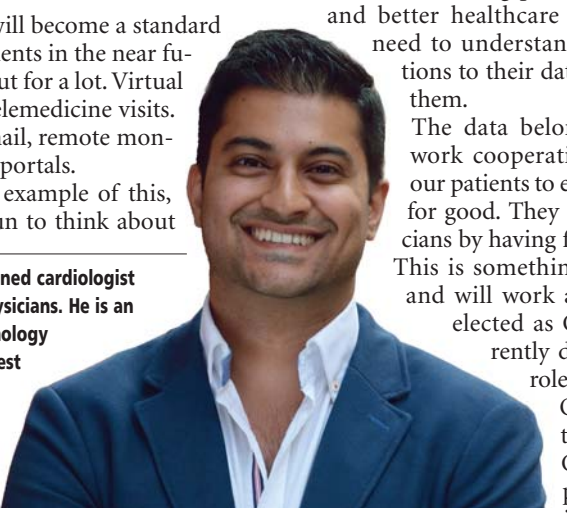
Furthermore, education plays a huge role. Clinicians will need to know exactly their role in maintaining privacy and security.

> **Dr. Larsen: Patients should have full access to their complete healthcare data sets ... and they should be able to contribute to their health records.**

Dr. Malhotra: Virtual visits with doctors are just starting in Canada, but they could have a big impact, on both patients and the healthcare system. Do you think they will?

Dr. Larsen: Virtual care will become a standard way of caring for our patients in the near future, not for everything but for a lot. Virtual care doesn't only mean telemedicine visits. It also includes use of email, remote monitoring, and even patient portals.

Tele-homecare is one example of this, but we haven't even begun to think about the ways that virtualization could expand into broader healthcare knowledge and use.



Dr. Sunny Malhotra is a US trained cardiologist working at AdvantageCare Physicians. He is an entrepreneur and health technology investor. He is the winner of Best in Healthcare - Notable Young Professional 2014 and the national Governor General's Caring Canadian Award 2015. Twitter: @drsunnymalhotra

Even the vast volumes of data being collected by our wearable devices can be incorporated into an overall health plan for patients. We must create a space where technology companies and start-ups can produce products that succeed, making adoption of innovation easier in Canada.

It is frankly easier for start-up companies to market and grow in the United States than Canada. The brain drain of Canadian talent is a real issue. I would love to see this brain drain stopped.

Dr. Malhotra: Should patients be given more access to their health records?

Dr. Larsen: I strongly believe that patients should have full access to their complete healthcare data sets. Not only can they or should they be able to read and consume the information, but they should also be able to contribute to it.

There are many studies now that show that open notes have a strong positive impact on patient care and better healthcare outcomes. We physicians need to understand how patients' contributions to their data set will help us as well as them.

The data belongs to patients. We must work cooperatively as team players with our patients to ensure that their data is used for good. They can help us be better clinicians by having full access to their records. This is something I stand strongly behind and will work actively to promote if I'm elected as CMA president. I am currently doing that even now in my role as CMIO at Ontario MD. Open access will be revolutionary for healthcare in Canada. And as a patient, or potential patient, I can't imagine any other way.

Team approaches to implementing technology are keys to success

BY ROSEMARY GRAY

Rather than a new eco-adventure, BCHIMPS is the British Columbia Health Information Management Professionals' Society. They've been bringing together BC's health informatics, IT, IM and clinical leaders for three decades to network, share experiences and participate in professional development opportunities such as the recent Fall Symposium, held in September at Vancouver's Sutton Place Hotel.

This was the biggest BCHIMPS event to date, with a sold-out venue and more than 140 registrants in the room. When I walked into the corridor to fill my coffee cup, and returned to the room, it was like I crossed a force field that could barely contain the wall of positive energy, curiosity, and passion for making things better for the patients we serve in our health system.

The Triple Aim: The Institute for Healthcare Improvement's (IHI's) Triple Aim construct now has worldwide acceptance as an approach to optimizing health system performance. Canada has definitely bought in – the construct, even if not named, underpinned each speaker's approach.

The Triple Aim refers to the simultaneous pursuit of improving the patient (and provider) experience of care, improving the health of populations, and reducing the per capita cost of healthcare. Its power is that it is actually a single aim with three dimensions – you can't achieve and sustain quality outcomes for patients and populations without working simultaneously in all three areas.

Dr. Jeremy Theal, CMIO for North York General Hospital, in Toronto, laid out the themes quite clearly. Patients deserve and demand better quality and safety – for instance, preventable deaths in hospital are inexcusable.

Quantitative measurement and reporting: Increasingly, there's an emphasis on accountability for eHealth investment that relies on a measurement and reporting framework that supports the Triple Aim. We are starting to assess the quantitative impact of change, by measuring improvement (or lack of improvement) in terms of lives saved, costs avoided, harms prevented, patient outcomes improved, and provider experience of the change. These are the kinds of measures that are meaningful to providers, patients and other partners, and help us all to understand the tangible impact of investment.

> **You may achieve positive or negative outcomes with the same tools. It's a matter of approach.**

Evidence-informed clinical decision making: There's an increasing emphasis on the incorporation of clinical decision support into the day to day workflows of clinicians. Adoption of clinical standards is about making the best path to follow, the path of least resistance – the lessons are to make the right way, the easy way, and "don't impede clinical workflow".

North York has had success with

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