

In Conversation with  
**Michael  
Schull**

Ken Tremblay



**I**t is interesting to note that an emergency department (ED) physician heads up the Institute for Clinical Evaluative Sciences (ICES), Canada's largest health services research institute, an organization created to conduct and sponsor research that contributes to the effectiveness, quality, equity and efficiency of healthcare services in Ontario. As a Canadian Institutes of Health Research applied chair in health services and policy research, ICES's chief executive officer (CEO), Dr. Michael Schull, is singularly focused on driving gains in performance at the bedside, and the boardroom. With training in biochemistry, emergency medicine, epidemiology and statistics, few can combine his passion

for transforming clinical care and system performance. Schull is a professor in the Faculty of Medicine and the Institute of Health Policy, Management and Evaluation at the University of Toronto, in Toronto, Ontario.

Promoted from deputy CEO to head up the organization in September 2013, Schull's credentials and experience span clinical care, applied research, international study and Doctors without Borders (Canada). His most recent accomplishments have centred on strategies to reduce emergency room (ER) crowding and wait times, to improve system integration across providers and to evaluate these strategies for their impact on care and chronic disease management. Ken Tremblay caught up with Schull this fall.

**HQ: Why would an ED physician be interested in a desk job? What motivated you to seek the CEO role at ICES?**

MS: I've been an emergency physician and a health services researcher at ICES for the past 13 years or so; this place is almost in my genome, certainly in my blood. I feel absolutely passionate for the work that ICES does as it serves a tremendously important role in Ontario's health system. More broadly, it has had influence across Canada and internationally. It is a tremendous privilege to have the opportunity to lead it.

**HQ: How has the transition gone – any surprises or epiphanies in your first 100 days?**

MS: I would say there were no surprises, I know about the place pretty well – its strengths, warts and so on. The surprise is more about how suddenly things change when it is your problem to fix or pursue as opposed to someone else's. That's been a bit of a surprise.

The epiphany was an affirmation of what I already knew: the greatest strength of this place is the people. We have a remarkable team of passionate and brilliant staff and scientists. It's a pleasure to work with them and to witness their support.

**HQ: Much of your recent research focused on the ED and what you call “the game of broken telephone” as patients with chronic conditions navigate the interface among hospital, ED and community care. What did you mean by that term?**

MS: One of the big challenges in our healthcare system is integration of care: horizontal integration across the various silos in our system, for example, hospital-based care, primary care and community services. As an ER physician, I see [gaps] all the time because people bounce in and out of the emergency department, in part due to the fact that they weren't receiving the continuity of care they needed. Once they arrive in the ER, I experience the “broken telephone”; I cannot access test results or consultations unless they occurred at “my” hospital and, even then, sometimes I can't get the records. Horizontal integration is a challenge for healthcare, in Canada and many other countries, including those with universal healthcare systems and various payment strategies.

**HQ: ICES's mandate is to make its findings central to policy discussions as we, in Ontario at least, transform the healthcare system and the patient experience. Are we ready to let evidence drive health policy?**

MS: We are lucky in Ontario in that we have senior leaders in the system who value evidence. They ask for and review evidence before they make [key] decisions. That puts ICES in a very fortunate position in that we receive data, produce

information and can be asked very specific questions in order to provide stakeholders with the answers that help drive the development and evaluation of policy.

Having said that, evidence is not the only thing that guides and informs [health] policy. Sometimes, policies must be developed and decisions made that do not line up with the timelines that good research might require. There's definitely a tension there. We've been around for 20 years, and ICES has developed strong relationships with a number of stakeholders, including the government. That track record has enhanced our ability to influence health policy more effectively.

**HQ: Are there any limitations for an organization like ICES as it sponsors the assessment of priorities, current strategies and possible solutions to Ontario's healthcare challenges?**

MS: We don't see ourselves as an institution advocating for a specific policy; rather, we produce evidence that leads to potential recommendations, policy options or a framework for policy evaluation by decision-makers. Typically, we would not say to government, “This is what you should do.” There are limitations to the work we do and the data available to us. While we have an extremely rich and unique set of valuable [and useful] data, there are gaps that we are actively trying to fill.

An example would be mental health. We're about to launch a new mental health and addictions research program. We've done some research in mental health in the past, but it wasn't focused: our data were limited by information gaps in community-based mental health services not provided by physicians. We're actively working with community stakeholders and agencies as well as various ministries to fill these gaps in data. This is one example of a limitation that affects our ability to provide the best answers and the best guidance [to the system].

**HQ: How have your role and experiences as an emergency physician shaped your perspectives on chronic disease and aging?**

MS: Over the years, the hospital [ED] patient population has become older, sicker and more complex compared with when I first started practising. There are far fewer patients with very minor conditions; far more patients have really complicated problems that are difficult to solve in the ED.

Some come to the ED because they need particular services or tests not readily available in the community or because of an [acute] exacerbation of a chronic illness that could have been but wasn't managed in the community (i.e., better management in the community could have prevented the exacerbation). Others come back to the hospital because their post-hospital management was not particularly well integrated back in the community and they're suffering from some complication that brings them back to the ED.

It's the canary in the coal mine phenomenon: the ED sees the results of a variety of problems throughout the healthcare system. That's given me an interesting perspective and some frustration when I'm trying, as would any healthcare provider, to provide care that is integrated with that of others; for example, ensuring patients have follow-up care after I've discharged them from the ED. Many times we say to patients, "Gee, I hope you can contact your family doctor for an appointment after I send you home with your diabetic exacerbation; I've done my best to manage you here." Wouldn't it be nice if I could book an appointment before they left the ED so I knew they were getting that follow-up care?

**HQ: We seem to have elevated approaches that link chronic disease management and system integration to "silver bullet" status – is that expectation justified?**

MS: I don't think there's any silver bullet in the healthcare system; healthcare delivery is just too complicated. Really what you're talking about is integration. There's not one solution but, rather, a whole set of solutions to a whole series of problems. Hand-in-hand with efforts to better integrate care are efforts to approach healthcare from a population health perspective.

We need to think about healthcare differently: not as the patient in the ED; the appointment in the waiting room of a family physician; the waiting list of a specialist; or the in-patient of a hospital. Rather, we should think about care in terms of the patient population I'm supposed to be responsible for in collaboration with my specialist colleagues, other family doctors and the hospital resources that are appropriate for that population.

Together, we should figure out how to design and integrate [the system] around that population. That's the step we're struggling to achieve. If all we did was integrate care really well, a lot of people would remain excluded from that [ideal] care because they don't have a family doctor or appropriate access when they need it. Integration in isolation [of other strategies] may not achieve all that we need.

**HQ: Knowing what you know, what should a 21st century ED look like in Ontario?**

MS: First, it would be able to sufficiently and effectively deal with acute medical problems and injuries that emergency departments were designed to treat. We should be able to do so in a timely and comfortable manner (which is something that is often lacking in emergency departments). We should be treating patients with heart attacks, traumas, sepsis, children with fever, pregnant women who are having complications – in all cases, acutely. We should be able to manage this care in a high-quality and efficient manner – number one.

Second, we should continue with safety network that we do: people who, for a whole range of reasons are having difficulty access needed parts of system. We should be able to provide

services for those patients in order to get them hooked into the care they need.

The next thing is a department that can efficiently and smoothly transfer patients to the next element of care: getting them admitted into the hospital *that day*, or transferring them back into the community for community-based services or primary care – *seamlessly*.

The last thing about my 21st century emergency department is that we should have far better information systems. I should have access to information on the tests, treatment and care that patients have received before, as well as their current results.

**HQ: How have your experiences abroad shaped your views about what we need to do in Canada to improve healthcare delivery?**

MS: In 2009, I spent a year working in Malawi with an organization called Dignitas International, a Canadian non-governmental organization. I led a research project to assess if better primary care in remote rural areas could improve the outcomes of patients with HIV [human immunodeficiency virus].

Two things about that experience are relevant to Canada. First, in working with the Malawi Ministry of Health, I was amazed at how open the ministry was to experimentation with randomized interventions with various health centres. While every centre would eventually get [its planned] intervention, we had an enhanced ability to [concurrently] evaluate them all rigorously. That's often lacking in Canada and other countries: that willingness to say, "Yes we're going to experiment [with delivery models] in order to figure out how best to do this." This willingness to experiment with delivery of services allows us to know what works well and what doesn't work so well. That's one lesson.

The second lesson is that we could identify procedures, treatment or care traditionally delivered by, let's say, a doctor or a nurse that could be delivered effectively and safely by a lower level of healthcare worker; for example, medical assistants were less expensive and more available in those settings. That finding relates to our healthcare system. In my own emergency department at Sunnybrook, we've hired physician assistants to work side by side with us. They do a terrific job at delivering care in the emergency department under the care of physicians. They are a tremendous asset and obviously cost less than physicians.

**HQ: One of ICES's mandates is to document and comment upon patterns and trends of health services utilization. Improving standardization, reducing variation and incorporating evidence-informed practices are often cited as mechanisms to drive better outcomes. How do you see ICES contributing to the notion of better outcomes resulting from better access to care?**

MS: We do that through the work that we've been doing for 20 years: by studying outcomes our system delivers, and relating those outcomes to access. Access can be measured in all sorts of ways, such as how long people spend on a waiting list for a particular procedure or whether patients have ready access to a family physician, or, in my world, how long patients have to wait in the ED for care. The research we're able to do – analyses and observation studies across large populations – allow us to do what you could never do in a randomized trial. You cannot randomize for long ED waits or ED overcrowding when evaluating their outcomes. But with the methods and expertise ICES has developed over 20 years and the data we have available, we can assess these issues and determine how they'll affect patient outcomes.

**HQ: Engagement of healthcare's many stakeholders and effective communication are pivotal to transformational change. How has ICES positioned itself to engage its stakeholders: policy makers, providers, patients and the public?**

MS: Over the years, we've worked more actively to engage our stakeholders. We engage the Ministry of Health and Long-Term Care actively to communicate results of our work and receive from them key questions that frame their policy development. We have a process whereby system stakeholders, such as the ministry, hospitals or health units, can submit a question to ICES – we call them applied health research questions – needed for their planning or policy development. We answer these in as timely, efficient and effective manner as possible. That's one way that we're engaging more with stakeholders in healthcare.

Other ways are through formal partnerships. For example, we partnered with Health Quality Ontario and a number of universities across Ontario in the ideas initiative, launched by the Ministry of Health and Long-Term Care. We have a close working relationship with Cancer Care Ontario. These are examples of how we're striving to work with stakeholders, and we're getting better.

**HQ: The electronic medical record (EMR) and system integration through information technology ... any plans for ICES to advise the system?**

MS: We're very interested in EMRs and the potential that EMR data holds for understanding healthcare delivery and patterns of illness and care in the community. We have a number of ICES scientists who have been very active in this area. In what is called the Emeralds Project, we collect EMR data from approximately 300 physicians' practices across Ontario.

We're in discussion with other family physician groups to expand our EMR data holdings and leveraging those [for study]. For example, we can produce reports for physicians – for family doctors – that show the [relative] performance of

that practice, let's say, on diabetic management, compared with their peers. This [capability] has been very popular with physicians and is one of the main reasons why primary care physicians are co-operating and providing access to their EMR data for research. I believe this is a major area for us to grow in the future and could be critically important for ICES as well the health system.

**HQ: Have you been able to assess the uptake and contributions of clinical pathways, clinical practice guidelines and other tools to improve bedside care and outcomes for patients and the system?**

MS: That is a very challenging area to work in. We've been looking at how wound care protocols and guidelines have influenced care associated with wounds in the community. We have reviewed variation in the utilization of echocardiography, including work on variations in cardiac care such as angiography stemming from the use of clinical guidelines. The variation that we're seeing would suggest that they're not being followed as much as one might hope.

**HQ: How will Ontario's healthcare system be better as a result of your efforts? What would you want your leadership legacy to be at ICES?**

MS: There are a number of things. The work started by David Henry to expand the data holdings by ICES – aside from traditional health data – is very exciting. That's work that I hope to complete.

Under the aegis of CIHR [the Canadian Institutes of Health Research], the ministry and other organizations, we are going to radically expand access to ICES data for publicly funded researchers in Ontario and across the country. That's going to be very different from the past, where you pretty much had to be an ICES researcher or go through a process that was not user friendly. We're going to make our data much more available and our analytic capacity more available to a broad array of researchers. This may be helpful and even transformative for Ontario's healthcare system. These are two ways I hope to leave a legacy at ICES.

**HQ: Anything else you would like to highlight for our readers?**

MS: I am very excited and passionate about the opportunity to lead ICES. It is an absolutely stellar organization that is composed of remarkable people and remarkable data resources. Ultimately, the opportunity we have is to play a leading role in carrying out rigorous science to advance health services research and, at a more practical level, the delivery of the care today and tomorrow in Ontario and beyond.

**HQ: Thank you. HQ**