Reflections on an Agenda: Healthcare and Information Technology

William J. Pascal

William J. Pascal, Associate Editor, is the Chief Technology Officer of the Canadian Medical Association in Ottawa, Ontario

If you don't like change, you're going to like irrelevance even less. [General Eric Shinseki, Chief of Staff, U. S. Army]

The health information technology agenda that we are currently pursuing in Canada sprang to life in February 1999 as a result of the Advisory Council's Health Infostructure Report. The report served as a catalyst to bring a pan-Canadian approach to coordinate the various disparate provincial health IT initiatives. The first meeting of all CIOs from the provinces and territories in 1999 led to the 2000 plan to coordinate national efforts - "A Blueprint and Tactical Plan for a pan-Canadian Health Infostructure", which highlighted many of the issues surrounding electronic health records, privacy, standards, telehealth to name a few that we were struggling with than and in many senses still are.

Over this nine year period, we have seen the creation of Canada Health Infoway, a Federal investment of $1.6 billion, additional investments by all jurisdictions, and a spirit of cooperation to work together on determining how to move forward. I have had the opportunity to participate in numerous events and to work with many colleagues to discuss and debate how to best advance this agenda.

But as with all strategies there comes a time when it is healthy to reflect, to assess whether there is a need to change, adapt, or set off in a new direction. So let me share my own thoughts on the last nine years and cast an eye to the future.

The creation of Canada Health Infoway was in my view a good public policy decision. Infoway has promoted and facilitated adoption of standards, and provided the incentives for federal, provincial and territorial governments to build centralized core solutions, such as patient and provider registries, and drug, lab and diagnostic imaging databases, which are required to underpin a national EHR. However, this focus on the EHR agenda has largely excluded investment in the front-lines of primary care delivery. This in turn has effectively delayed the actual return on investment, measured in terms of improving patient care and safety.

Let me explain. Health care is fundamentally a locally delivered service. Over 85% percent of care occurs at the community level by general practitioners, primary care teams, long term care and home care facilities and local hospitals. Almost all prescriptions, requests for lab tests and referrals are generated at this level. The majority of time, investment and energy with the current EHR agenda is dedicated to that part of the system that does not deliver care. Based on Canada Health Infoway research 20% of the Canadian IT spend would be required to put in place point of care solutions. This means that for less than 20% of that total spend we could support clinical delivery for over 85% of the care encounters. Pareto's rule lives!

We need to realign our efforts to assure that the IT infrastructure utilized by point of care providers when standing at the bedside or in the exam room is delivering added value to the patient!

This EHR focus has locked us into an "all or nothing" solution; many of the components must be up and running before point of care clinicians and patients benefit from this investment. By way of example BC PharmaNet is considered by many as the most advanced drug data base in Canada but is of limited use to most point of care clinicians because it does not map into their care processes (physicians have to log into a separate system and only view the prescriptions) nor does it integrate into EMRs.

In contrast, the relatively small investments in EMRs, which for the most part are not integrated into the EHR infostructure, give physicians a drug module to provide advice on drug related safety issues, check for adverse effects, and maintain the scripts issued by the physician, providing high value at low expense and low risk. EMRs could complete the e-prescribing cycle and be harnessed to transmit e-prescriptions at relatively low cost and risk using a non-EHR approach. In fact while waiting for the perfect EHR solution many physicians have developed workarounds with pharmacies to work in a virtual manner.

I have taken the time to read almost all the provincial and Canada Health Infoway strategies. What strikes me is the risk entertained in all of these plans albeit I found Ontario's recent plan less risky. My assessment

is that we are trying to boil the ocean (the technologist approach – the complete IT solution) as opposed to doing a couple of small things right (the care provider approach- pragmatic and focused on key needs of the patient), and then moving onto other initiatives. So why do I think Ontario has got it right? They are focused on only three priorities; they have set clear metrics on what success means; they have established reasonable time lines which translates into short-term value; and they are having the clinicians at the point of care who are ultimately responsible for delivering care, drive the initiatives. I applaud this approach and I hope that they can remain focused on moving forward given all the other distractions.

Our current centralized, top down EHR approach is high on cost and risk of failure and low in the short to medium term return on value in terms of health care improvements for Canadians. One third of IT projects fail because they are cancelled or do not deliver the value that was promised. The probability of failure increases for larger projects. The arguments against changing to a more grass-roots bottom up agenda have been the need to ensure interoperability between the components pieces and to better manage the overall costs. Interoperability is indeed important and the delay in a functional operational Health Information Access Layer (HIAL), even at a basic level, is no longer acceptable. The ability to connect point-of-care solutions together to share data is delaying the attractiveness for many physicians to adopt an EMR. We need to figure out how to quickly implement regional solutions to put in simple central messaging capability, using appropriate standards, to allow EMRs to share data, without building to un-scaleable, expensive point-to-point solutions.

Let me be clear – I am not advocating that we abandon the centralized applications and databases that will be required for a comprehensive eHealth environment. However, we need to balance our efforts and resources (risk/expense vs patient value) by now investing much more significantly in solutions at the point-of-care that can be implemented in the short term, e.g., EMRs, that will interface with the centralized systems (the HIAL and EHR) as they become available.

Let's not let the desire for having the perfect solution be the enemy of the good. Good here means getting basic health information moving. We need to speed up information liquidity.

If we don't change the agenda it will be done for us for two simple reasons: financial and access to care.

- *Financial:* Over the past two years all provincial, territorial and the Federal governments have gone from surpluses to deficits. The prediction is for a long, slow recovery. Health care costs have been rising unabated and are one of the largest single expenditures for most jurisdictions. Politicians are looking for ways to reduce their deficit and health IT funding may be an easy target.
- *Access to Care:* We are about to be hit with an unprecedented wave of seniors (the baby-boomers) that have, for the most part grown up with public health care, and expect it to be there when they need it. We know that the senior years are the most demanding of the health care system, especially in the area of chronic disease management and medication management. eHealth can support primary care providers in the management of chronic disease and prescriptions.

We need to show government the value of eHealth, at a reasonable cost and low risk, in solving these problems now – not at some point in the future, which with our current approach always seems to move out further as we approach the deadline.

So, if you are still with me, how do we redefine the agenda? I don't want to get into solution mode at this time, that comes after we agree on the agenda, which I think needs to address a few key points:

- We need better engagement and consensus on the right solutions from point-of-care clinicians. This is no easy task as there are many and often conflicting opinions. There is limited primary-care eHealth experience compared to secondary-care, hospital, eHealth experience. Much of the EHR drive has been from clinicians from the hospital sector – we need to change that thinking and not only utilize the primary-care clinician experience that we have, but ensure it is representative of the large primary-care constituency.
- We need to ensure that the technologists don't dismiss the clinician input and concerns. Some very valid clinician feedback, especially about the real world primary care environment, doesn't fit with the elegant end-state design that the technologists have dreamt up. Health care delivery is extremely complex, and without active involvement with end- users reviewing and contributing to the solution designs for revised processes, how can we expect to be successful? This feedback needs to be addressed, otherwise the expensive solutions that take years to build may never be used. We likely have a few systems like that are on life support today and have yet to pull the plug on some.
- We need to stop sidelining the vendor community. I can not help but get worried as I see the agendas move forward that we are not mining the core competencies of the vendors. In particular we are sidelining the EMR vendor community in helping us scope out the art of the possible. Rather than establishing criteria based on the health goals, we are creating processes which squeezes out innovation, picking winners and losers rather than letting market forces prevail and setting artificial barriers (uneven standards) that only serve to frustrate and lower profitability. How can we create a more balanced engagement.

- We need to resolve many policy issues. Many critical policy issues surrounding privacy, security and data sharing have yet to be worked out. We know that these are the elephants in the room that have not been worked out. Typically the technology is ahead of policy because we don't fully appreciate the complexity of the issues until we try to make the technology work under the current complex set of rules. We need to get the point-of-care solutions out in a simple form now in order to understand how legislation and regulations need to be changed to support the new eHealth world. More than one grand, expensive EHR scheme in other countries have come to a halt due to privacy issues.

I know that a number of these comments will meet resistance in some quarters but so be it. My main point is that we need to reassess where we are in this journey and be open and bold enough to seek paths forward that will heighten our probability of success.

The risk of becoming irrelevant puts in peril the eHealth agenda in Canada therefore we need to embrace change. We have so much to gain as a country, as a community, as individuals. I look forward to engaging with you in defining a revised agenda for eHealth success. More to come.

"We would appreciate your feedback on this article and have a blog (ehealthmusings.com or ehealthmusings.ca) established by Michael Martineau to serve as a means to continue the conversation. " ●