

Insight E-Health Forum

Keynote Address: Health Technology in the North

Minister Glenn Hart

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Good Morning. I'd like to first take this opportunity to thank the conference organizers for inviting me to speak with you this morning.

We are assembled over the next two days to talk about information technology developments in health care – electronic health and medical records, wireless and mobile devices, and patient and provider portals.

I am going to talk about how e-health has had an impact on, and improved, health care in the north.

I thought about it, and came to the realization that really, e-health in the north And I can only speak for Yukon . . . is becoming more prominent, as it provides a mechanism to make our health care system more accessible and responsive to the needs and demands of our citizens.

Elsewhere in the world, and for some time now, electronic health records have been saving time, saving money and saving lives.

Only this week, as the Minister of Health, I heard from some of our territorial health care providers who spoke quite passionately about the efficiency of the technology, and how it improves patient safety by reducing manual inputs to the system and thus reducing human error.

Yet, in North America, progress is limited to a handful of projects.

To the south of us, President Obama is pushing to invest 50 billion dollars to introduce Internet based e-health records.

This spring, Ontario announced their "road map" to spend 2.1 billion dollars over three years;

And Infoway was established in March 2001 with the stated objective that half of Canadians would have some sort of access to e-health records by 2010. 2010 is just around the corner – I don't think we are going to meet that target, even though Infoway's budget has risen from about \$500 million to more than \$2 billion presently.

Projections for final costs run to more than \$12 billion.

Cost aside, e-health programs have run into some serious management issues, and all sorts of irregularities, which surely have contributed to undermining the public confidence in the ability of health officials to deliver.

Moreover, a study by a New Jersey research team published in the *Annals of Family Medicine* in 2007, compared the treatment of diabetes in practices that used electronic patient records and those that didn't. It was surprising to researchers – and to me, quite frankly – that patients received better treatment in those clinics that did **not** use electronic records.

The researchers concluded that it takes more than sophisticated technology to get improved results. Some have even argued that e-records will cost more, and result in a decline in physician productivity.

So there is plenty of controversy.

E-health, to me, is about providing the right information to the right provider at the right time. And in the Yukon, this can present some challenges.

Our vast size alone presents us with many challenges.

- We are the 9th largest province or territory, closest in size to Newfoundland and Labrador
- And yet our population is about 35,000.
- With 14 communities spread throughout 483 thousand square kilometers, we face many different obstacles.

Let me talk a little bit about what we're doing in Yukon with technology.

The Connect Yukon project, which brought high-speed internet access to 95 per cent of Yukoners, was completed in 2005, and really was the beginning for us.

Because of these infrastructure improvements to upgrade bandwidth in all Yukon communities, we have had particular success in the areas of tele-health, tele-videoconferencing that allows for patient and provider remote access to

specialized resources; tele-homecare or tele-radiology, a project currently underway.

Our foray into electronic health began several years back with the launch of telehealth videoconferencing capacity in two Yukon communities. When we linked those first community health centres, we opened a whole new world of health care service to Yukoners.

That initial project focused on four applications – telemental health, tele-learning, family visitation and emergency medical x-ray support in other communities, including Old Crow, a community north of the Arctic Circle, not accessible by road.

This provided people in some remote Yukon communities the ability to come *virtually* face to face with a doctor or other health care provider even though they were hundreds of miles away.

For our nursing staff, it meant that both they and their patients were able to access scheduled educational sessions, given by B.C. and Yukon health providers.

Even the simple “store and forward technology” of 2002 enabled health care providers in rural Yukon to send electronic pictures of rashes, wounds and x-ray images from the rural communities to health care professionals at other locations.

It wasn't long before we added therapy services, tele-visits by the Child Development Centre, and discharge planning, to the list of telehealth uses.

Our goal was to create a Yukon electronic network that would improve access to health care services for Yukoners in remote and rural communities, let health care providers talk to each other, and create opportunities for visits between hospitalized patients in Whitehorse, with family and friends in rural Yukon.

For us, it was about being able to provide equal access to health care regardless of where a citizen lived – in Whitehorse, or in an outlying rural community.

From a clinical perspective, Mental Health Services were really the first early adopters of telehealth use, making use of the network to provide clinical follow-up of clients in rural Yukon, and in the days when Yukon did not have a resident psychiatrist, to provide direct sessions with a psychiatrist in B.C. (As a side note, we now have three psychiatrists working in the territory).

This meant improved quality of services for persons diagnosed with serious mental health problems, by providing psychiatric services from Vancouver to Whitehorse, regular monthly sessions with pediatric and geriatric psychiatrists and twice monthly sessions provided by a psychiatrist specializing in adults.

Presently there are only two communities with mental health staff outside of Whitehorse. These workers use the telehealth network for team meetings and consultations with clients. The network has created partnerships among allied mental health professionals by allowing them to work together, and has improved utilization of scarce professional resources.

Most recently we have used this network to link a rural mental health patient to group therapy sessions in Whitehorse.

Since those early days, we have been able to add all rural Yukon health centres to the network and have also piloted the technology in some First Nations' offices.

By piloting this technology in these offices, we have been able to engage Yukon First Nations citizens in a more positive way and help build the technological capacity among the First Nations.

Today, our telehealth videoconferencing network is used for a wide variety of services.

Working closely with our colleagues in Alberta children's services, for example, we are able to participate in a series of educational sessions on Fetal Alcohol Spectrum Disorder on a regular basis.

We also use the telehealth network to provide expert guidance for our Tuberculosis program through the B.C. Centre for Disease Control.

The Yukon Health Line, 811, was officially launched in the summer of 2009, enabling Yukon residents to access health information and advice over the phone by simply dialing 811 to connect with knowledgeable, specially trained registered nurses who answer questions 24 hours a day, seven days a week. The nurses help callers determine if they can treat a problem at home, or should seek medical attention.

These nurses have been trained to take Yukon calls and have access to an on-line Yukon database that provides them with up to date information for their callers. They know, for example, that the closest pharmacy for a Ross River resident is in Whitehorse, five hours away, or that a resident of Old Crow, can't drive to the nearest hospital.

Another e-health initiative is being used by Home Care.

In May of this year, home care staff began using a mobile data system which they can bring into their clients' homes and use to access up to date electronic home care records. This new data system will make home care visits more effective and efficient by allowing care providers to involve clients in their care planning, while eliminating the need to re-enter information when the providers get back to the office. We have noticed, even since May, increased engagement with our clients.

The protection and security of client data is of critical importance to the tele-homecare project and is a key feature of the system that is being used. The system chosen uses state-of-the-art full disk encryption that protects all data stored on the mobile device from any unauthorized access.

In December 2008, Yukon embarked on a new tele-radiology project. New digital teleradiology equipment will replace existing film x-ray processing equipment in community health centres.

Converting to digital technology will enable digital x-rays to be sent electronically for diagnosis, allowing diagnosis to occur much faster than the current situation where film x-rays need to be physically mailed to a radiologist outside of the territory.

This also provides full access to a group of radiologists in many different fields, rather than only having access to one medical imaging specialist.

Waiting for diagnosis can be a stressful time for patients and their families. Providing more timely access to diagnosis will reduce wait times and ensure that treatment occurs promptly.

As well a new digital mammography machine has made it possible for real time review of images by radiologists. While not standard for every exam, the technology makes this possible and if a slide is questionable, the radiologist can review while the woman remains in the room. If further images are required, there is no need for her to be called back.

This is particularly important for those women who live outside of Whitehorse and can't travel back.

Our foray into electronic health hasn't stopped at telehealth.

Recently, we launched our electronic health library.

Access to e-health libraries facilitates access to authoritative literature that goes beyond Goggle's limited access, and it supports professional ethical responsibilities to ensure current knowledge, best practices and evidence-based practices, and I believe, results in improved health outcomes and enhances quality care.

Global challenges with human resources shortages is a particular challenge to small jurisdictions but even more so in rural and remote practice locations.

Electronic access to resources goes a long way to support our Health Human Resources strategy in recruitment and retention.

It enables professionals to maintain their skills and knowledge, remaining at the forefront of their practice, and supports mentorship of new staff by providing consistent and uniform information.

Electronic access to resources supports health and social services research, not only in nurturing lifelong learning, but also in fostering growth of research opportunities in Yukon.

Sharing of health information is an important part of e-health and one where we are now turning our attention.

There are a number of physician office systems across Canada, none of which are fully compatible with other electronic health records.

In Yukon, there are currently two systems in use, Clinicare and Plexia, which are being used by approximately 70 per cent of Yukon physicians.

This year, Whitehorse General Hospital, the Yukon's only regional hospital, received federal wait time funding to implement a system for electronic distribution of clinical results.

When completed, this system will enable the electronic distribution of Meditech Lab, Microbiology, Blood Bank results as well as diagnostic imaging and other reports, to Clinicare and Plexia.

The system has been selected and installed, and Whitehorse General Hospital is currently working with the emergency medical records vendors on integration and testing.

Because of our small size, Yukon has had opportunities to effect change faster than our larger counterparts to the south. This is one time where our size works in our favor.

However, on the flip side, our small size and sparsely distributed population, present us with challenges in terms of economies of scale, breadth and depth of human resource expertise, and capacity.

We can't afford the massive investments for research and development necessary to create electronic solutions. Instead, we must focus on leveraging progress made by others, quite possibly, many of you present here today.

Yukon is currently exploring options for implementation of the core systems of an integrated electronic health record, including client and provider registries, lab test results, drug information, digital imaging and mammography reports, patient and provider portals, as well as the health information access layer, that will provide the security for access to, and protection of privacy, along with the communication methods between different points of the service systems.

This would allow us to realize our vision of integrated health records for all residents, being able to provide the right information to the right provider at the right time.

B.C. and Yukon are working to establish a Memorandum of Understanding on intergovernmental collaboration on e-health services. The long term vision is a level of e-health integration between the two jurisdictions that achieves the desired objectives of both of us, while being practical, sustainable and affordable for both jurisdictions.

Our Public Health Information Project, undertaken jointly with B.C., puts Yukon at the forefront of electronic health. This project will see Yukon implement Panorama, the pan-Canadian public health information system solution for the management of communicable disease and immunization.

We may find that the greatest impediment to the introduction of integrated electronic health records may not flow from the limits imposed by technology, but could instead, come from the public concerns that insufficient attention is given to the privacy of their personal medical information in the development of Electronic Health Records.

However, a great deal of effort goes into addressing privacy and security, through Privacy Impact Assessments, and Threat and Risk Assessments.

Through the development and use of tools such as those I just mentioned, we now have a much better understanding of the privacy and security risks associated with projects that help to inform our decision-making.

Synapse is an electronic clinical record and case management system used by mental health clinicians and practitioners. It offers a real concrete example of how jurisdictions can work together to effect change.

Yukon Mental Health Services, through Synapse, is working closely with the Northern Health Authority in northern B.C., and Vancouver Coastal Health Authority in the lower mainland.

These three regions are sharing expertise, and prioritization of upgrades to software, along with practices and policies, in the provision of mental health services.

We are exploring the legal and privacy issues around shared information. Concerns around access and privacy have been raised in all jurisdictions, most notably Alberta, B.C. and Quebec.

We work closely with our Privacy Commissioner.

Yukon is proceeding with the development of new health information legislation which will guide the policy decisions regarding access to, and the privacy protection of, personal health information. We are currently working with a reference group comprised of key health care providers to develop the legislation. It is our intent that this legislation covers the entire health care sector.

Privacy concerns are just one challenge that we in the Yukon face in moving forward with e-health.

Other challenges include a lack of economy of scale that would justify Yukon making its own investments in e-health solutions. Resource capacity issues, money and people, along with the current public concern that insufficient attention is given to privacy.

Twenty five years ago, a western phone carrier ran a television ad that talked about a physician in Vancouver listening to the heartbeat of a child in the Yukon over the telephone lines.

We've come along way since then but we have not yet fully harnessed technological advances to our health care needs in the North.

An analysis of the history of technology shows that technological change is exponential, contrary to the common-sense intuitive linear view.

So we won't experience 100 years of progress in this century – it will be more like 20,000 years of progress, at today's rate. The returns on technology, such as chip speed and cost effectiveness, also increase exponentially.

It behooves us to put in place the legal and policy regimes to ensure that the requirements of our health care system can catch up.

Thank you.