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**Chair**

**Mrs. Joy Smith**



## Standing Committee on Health

Tuesday, October 23, 2012

• (1100)

[English]

**The Chair (Mrs. Joy Smith (Kildonan—St. Paul, CPC)):** I call the meeting to order.

Good morning, everyone. It's nice to see all our guests here this morning.

From the Centre for Global eHealth Innovation, we have Dr. Joseph Cafazzo. He has a PowerPoint presentation, so we're going to begin with him shortly.

From the Manitoba eHealth Program—good Manitoba, centre of Canada, let's fly the flag for Manitoba, Dr. Girard—we have Dr. Roger Girard, chief information officer.

From the Assembly of First Nations, we have Jonathan Thompson, director of the health and social secretariat. Welcome.

We have, from Health Canada, Kathy Langlois, acting assistant deputy minister for regional operations; and we have Ernie Dal Grande, national manager of the eHealth Program.

We have a dynamic group of witnesses today and we can hardly wait to hear what you have to say. Each organization will have 10 minutes.

We will begin with Dr. Cafazzo, with your PowerPoint, for ten minutes, Doctor.

**Dr. Joseph Cafazzo (Lead, Centre for Global eHealth Innovation):** Thank you very much. Thank you for the opportunity.

I'm Dr. Cafazzo from the Centre for Global eHealth Innovation at Toronto General Hospital. We have a mandate, as an academic research facility based at Toronto General, to look at the design and evaluation of future e-health innovations that will transform the health system.

[Slide Presentation]

Our mandate is to address these six chronic conditions that consume 60% of all health spending. If we consider all chronic conditions, that's as much as 80% of all health spending. The main issue we're trying to address is that we have this tendency to spend most of our health care dollars on this bottom right-hand quadrant: very intensive acute care, at a very high cost, and with a very low quality of life. The purpose of the systems and the technologies we're looking at is to facilitate the shift in the spending toward this top left-hand quadrant: the care that is closer to home, that's lower in cost, and that comes with a higher quality of life. Central to this is the mandate of the centre, which is to facilitate patient self-care, where

we believe that the patient has a larger role to play if the system is designed to accommodate them.

I want to cite some examples at Toronto General Hospital. Many of you already know that patients with end-stage renal disease must have hemodialysis three times a week in a centre such as Toronto General. About 10 years ago, an experimental program was started. One of the patients who decided to opt for this program was Yvonne Maffei, 27 years old, with end-stage renal disease, and recently married. Her future was within a dialysis unit three times a week. She opted to go with this experimental program of home hemodialysis. Although it sounds crazy, the idea of putting a dialysis machine in a patient's home actually works. Because they had the dialysis machine at home, they could dialyze more frequently. Rather than get 15% renal replacement function within a hospital setting, they could get as much as 50%. The theory was that they could have better outcomes.

Yvonne Maffei was one of 20 patients enrolled in this program. They have to learn how to use the machine and self-cannulate themselves using these two big needles every single day. For Yvonne Maffei, the outcome was significant.

For end-stage renal disease patients, the idea of bringing a pregnancy to term is pretty well unheard of. She not only conceived, but she also brought a full-term baby to term nine months later, which is unprecedented for end-stage renal disease patients. She was not the first. There were many patients subsequently over the next 10 years. This was literally a baby boom amongst home hemodialysis patients, who for the first time would be able to bring pregnancies to term. These children would not have been born if it wasn't for the ability to have the system accommodate patients and allow them to create circumstances for them to care for themselves.

The outcomes over the last 10 years have shown that home hemodialysis has many improved health outcomes. You can see the long list there of improved health outcomes. The most amazing thing is that it costs about \$10,000 a year less per patient, per year, to deliver in the home rather than in an institution like Toronto General, so it is a win-win all around.

I want to cite some other examples of creating systems and technologies to unlock the patient's ability to self-care. This particular group includes teenagers, and they're not necessarily known for having the skills to care for themselves. We decided to build a system around their mobile phone for them to be able to manage their blood sugars on a regular basis. With the Hospital for Sick Children we created this application called Bant. It had the ability to wirelessly communicate with their blood glucose meters and capture the blood sugar readings on a regular basis.

We also added a rewards program for these kids to be able to earn experience points. For every reading they took, they earned a times two multiplier for consecutive readings and bonus points when they took five readings in a row. They were able to redeem these points for iTunes redemption codes, which would allow them to buy music and apps. The study we did at SickKids showed that these kids tested 50% more frequently using the app than in the three months previous to using the app. It's a small step in learning how to care for themselves. Perhaps it's not as impressive as giving birth, but it's a step in the right direction for these kids.

• (1105)

Another example is with type 2 diabetes. These patients also had the comorbidity of hypertension—a serious comorbidity. We did the same thing using a BlackBerry and a blood pressure monitor that was Bluetooth-enabled to communicate with their mobile phone. We did a randomized control trial: taking a conventional blood pressure monitor, giving it to a group, and giving another group the blood pressure monitor with the BlackBerry and the app running on it. After a one-year period we saw no change in the group that just had the conventional blood pressure monitor, but with the group that had the BlackBerry app, we saw a 20% drop in their cardiovascular mortality risk.

The other significant aspect of this study is that the physicians had really nothing to do with this outcome. No additional medications were prescribed. There were no additional visits to the family doctor. This was truly patient self-care, allowing the patients to become a lot more self-aware of their condition and more actively managing their care, whereas the patients who just had the blood pressure monitor... largely because hypertension is asymptomatic, they probably forgot to use it after a period of time.

We have been building apps for many years to deal with diabetes, working with the Heart and Stroke Foundation to do a risk assessment, and our newest application is for consumer asthma management.

One of the central key issues we are very concerned about, and one of the things we really need to deal with is patient access to their personal health information.

This is David deBronkart, who visited Toronto a few years ago from Boston with a very simple message to health providers, "Give me my damned data."

These patients need the ability to have personal health information; they have serious comorbidities. They're managing their condition in the absence of their personal health information. It is legally their right, but there are systemic issues in the system that deny access to these patients to their health information.

Again, if we are to deal with these six chronic conditions, we need to reprioritize ourselves toward the patient in dealing with this immense burden on the health system, and there are patients out there who are more than willing and able to do this.

This is Yvonne Maffei today. Ten years later, she is still on home hemodialysis. She's still inserting those two great big needles into her arm on a regular basis. She's doing great. In fact, she now has two sons. She was not unique. Thousands of patients are doing home hemodialysis all around the world, and she is just a single example of what patients can do if the system is set up in such a way that it allows them to care for themselves.

Thank you.

**The Chair:** I'm so glad you came today. That is absolutely amazing, and I would say that giving birth is comparable to the iPhone.

Now we'll go to our second presentation, which will be given by Mr. Roger Girard from Manitoba eHealth.

**Mr. Roger Girard (Chief Information Officer, Manitoba eHealth Program):** Good morning. Thank you for the invitation to present to the committee. This is a first for me personally, and it's a privilege to be here today.

I am the chief information officer leading Manitoba eHealth, the provincial organization tasked with implementing a variety of information and communication technologies, which we call ICT, in health care. Such technologies are transforming how we work and how we live in every province and territory and in every sector, and health care is no different. I would like to take some time today to talk to you about their potential, some challenges on their implementation, and our experience in Manitoba.

Technology, like electronic records and telehealth—which is also known as telemedicine in some provinces and which is a specialized medical video conferencing service—has the potential to dramatically transform health care. We're already seeing the real impact of some of these changes. Health care is becoming increasingly advanced, with more and more research leading to new treatments, new information about old treatments, and more information to ensure treatments are used more effectively. E-health technology can support our health professionals in having the most up-to-date information as they deliver care to their patients, while improving patient flow and reducing wait times.

Health care is also becoming a challenge to sustain financially, especially with the current uncertainty in the global economy. E-health technology is playing a key role in helping provinces find efficiencies and reduce the rate at which health care spending is increasing, by better coordinating care, by reducing medical errors, and by eliminating unnecessary duplicate testing.

We all know that health care in Canada is complex. There are a variety of different organizations funding and delivering health care through different processes, standards, and policies. Implementing consistent technologies such as these in this environment is extremely challenging, as it often requires organizations to update their practices and harmonize other aspects of their operations. While this is a good thing and essential for quality, it remains that there is a natural resistance to change, and it is an important challenge to ensure that this does not cause disruption to patient care along the way. These factors mean that procuring, designing, adapting, and implementing e-health technology in a busy health care environment is expensive. It takes leadership at both the provincial and federal levels of government to ensure that e-health investments continue so that we can reach the full potential of this technology.

Here are a few words on the experience in Manitoba. Earlier this year the Manitoba government unveiled a plan to protect universal health care, called “Focused on What Matters Most”. The plan has three pillars—healthier Manitobans, better health services, and better value—to help meet the expectations of families across the province, keep up with advancements in medicine, and sustain this cherished public program in the face of global economic uncertainty. E-health technology and electronic records play a central role in the government's plan to achieve all of this.

I would like to advise you that Manitoba is a leader in e-health and in telehealth. Given our geography challenges with rural, remote, and isolated communities, this is not optional—we have to be good at it. This was not always the case. Not long ago, Manitoba was at or near the bottom of the list of Canadian jurisdictions in terms of health ICT spending. So how did we change this? The answer starts in 2006, when the Manitoba government created Manitoba eHealth and increased its commitment in funding to this important aspect of health care.

Manitoba eHealth is the single delivery vehicle for all e-health projects within Manitoba, whether these are within regional health authorities or within Manitoba Health. Manitoba eHealth is also housed within the province's largest regional health authority, which ensures proper oversight, minimizes overhead and administrative costs, and keeps us aligned with the needs of caregivers, health professionals, and government, and it keeps us accountable.

Manitoba eHealth spearheads a number of projects in hospitals, family doctor clinics, labs, diagnostic imaging facilities, and so on. Today there are 62 active ICT projects under way. Since Manitoba eHealth was established in 2006, over \$270 million has been invested in health ICT projects across our province. I'd like to share some examples of these projects and their profound impact in Manitoba.

Today all of our diagnostic imaging services in hospitals and other public facilities are fully digital, with a province-wide network that spans 58 sites. In fact, on the very day the system went live in

Churchill, a fly-in northern port community on Hudson Bay, I received a phone call from an excited CEO who reported to me that an unexpectedly quick turnaround on a chest X-ray had averted the evacuation by air of a patient in the emergency room. This was only possible because of this digital diagnostic imaging network, which allowed a specialist in Winnipeg to quickly review and provide feedback to the health staff in Churchill. Before this technology had been implemented, it would have meant sending a hard copy to Winnipeg, with a minimum of a two-day turnaround.

● (1110)

Telehealth is also having a tremendous impact on rural health care. With 125 sites today, families in rural Manitoba can visit their local health centre and connect with specialists in larger urban centres over sophisticated networks. This saves families time and money, as they no longer have to travel to larger centres for appointments. We estimate that every year, over one million kilometres of patient travel were eliminated, saving families \$2.6 million per year in their own out-of-pocket expenses. Telehealth also saves the health system money by allowing staff to avoid over another \$1 million per year in travel costs.

Electronic medical records are now dramatically improving patient care. Aside from computerizing patient records, EMRs allow doctors to better monitor their patients' care and allow them to view recent prescriptions, lab results, and other information. Just a few years ago, in Manitoba, only about 15% of family doctors had an electronic medical record; today, almost 70% of all doctors have an EMR in place or on order. This is a rapid change that has the potential to deliver better coordinated patient care and to improve the quality of services that we deliver.

In our flagship hospital, St. Boniface Hospital in Winnipeg, we implemented an electronic patient record and were able to measure the avoidance of 8,600 medication errors during just their first year of operation, with a 45% reduction in reported medication incidents. But this would not be possible if we were by ourselves—the support of the federal government and Canada Health Infoway have been critical.

I cannot stress this enough: Canada Health Infoway and the financial support through the federal government have been absolutely critical to our progress. In 2006, as today, Infoway remains an important enabler for Manitoba, with \$67 million of investments made or committed to our province in 24 different projects. Through Infoway, we are assured that our program is consistent with and will eventually be interoperable with those of other jurisdictions. We owe nothing less to all Canadians, and Manitoba is doing its part in this regard.

For example, several years ago, Canada Health Infoway set a bold target that 50% of the population would be served by an electronic record by 2010. Manitoba has delivered on its commitment and has met the Canada Health Infoway goal. In fact, in 2010, Manitoba went live with eChart Manitoba, which is our version of the EHR, a service that has delivered 100% of all Manitobans towards this goal. EChart is now deployed in 78 locations across all of Manitoba, and utilization of this important resource is accelerating. EChart Manitoba provides health care providers everywhere, in the city as well as in the north and in first nations communities, with a record on drugs dispensed, some lab and imaging results, and immunization records.

Infoway, and the federal government's support, have been essential to moving electronic records forward across Canada and helping us achieve the potential we know they all hold. While this work doesn't always get big headlines in the news, it is making a significant difference for patients in Manitoba and across our nation. It is making care more accessible, better coordinated, and safer, and it will continue to play a key role in transforming health care into a more sustainable system over the long term as well.

Before I conclude, I want to note that the requirements of e-health are much more than the current Infoway mandate provided by the Government of Canada. It also includes automation within hospitals, home care, community health, mental health, long-term care facilities, other diagnostic areas, and so on. We have accomplished a lot, but there is much more to do. We ask for your support to help us continue this important work and get the job done. We need the continued help and support of Canada Health Infoway and the federal government. We need your help and support.

Thank you. I am pleased to answer any of your questions.

*Je suis heureux de répondre à vos questions en français.*

• (1115)

**The Chair:** Thank you so much. That was very interesting, and we appreciate your insightful comments.

We'll now go to the Assembly of First Nations and Jonathan Thompson, please.

**Mr. Jonathan Thompson (Director, Health and Social Secretariat, Assembly of First Nations):** Thank you to you and to your colleagues as well, Madam Chair, for the invitation today. It's a pleasure to be here.

As all of you probably know, the Assembly of First Nations is the representative body of all first nations communities across Canada, totalling close to a million citizens over some 633 communities.

We look after many files at the AFN Health and Social Secretariat, such as public health, mental health, information management, and primary care, but one of the big ones as well, of course, is e-health. As technologies advance and as Internet access expands to our communities, telehealth and e-health are seen as indispensable tools towards developing a comprehensive, effective, and efficient health system for first nations people.

For a little context, the state of first nations health, as you are probably mostly aware anyway, certainly is lagging behind in terms of health outcomes. I was looking at the big six from Dr. Cafazzo, and I was like, "Yup, bing, bing, bing, check, check, check".

Unfortunately, for type 2 diabetes, for instance, the rates on reserve are three to five times higher. Infant mortality is 1.5 times the national average. I can go on and on. I don't want to spend a lot of time on that. The story is well known.

Why is this the case? There are many, many reasons, but certainly one is access to care. Access to care is an issue that contributes to poor health outcomes for first nations.

In the recently released first nations regional health survey, respondents identified a number of health care barriers, which include: the inability to cover child care costs; difficulty in arranging and paying for transportation—medical transportation is another issue that is important here this morning, obviously; excessive wait times; and inadequate and culturally inappropriate care.

As well, mental health was mentioned already. That is another huge issue. Mental health and substance abuse services on reserve are often limited to paraprofessional staff with limited mental health training. The recent closure of the Aboriginal Healing Foundation and the wind-down of the Indian Residential Schools Settlement Agreement will almost be certainly felt within communities unless investments in mental health services are made.

An added complication is the fact that the first nations population is a very mobile one, both in terms of residency, moving from rural communities to Winnipeg or Saskatoon or what have you, and also in the way they are required to move between the federal and the provincial and territorial health care systems to receive care. Just to give you an idea, the RHS also looked at residency. It showed that 59.2% of first nations adults reported living outside of their communities at some point in their lives. Of those, something like 23% had moved two or more times in the last 12 months.

It's very clear that these factors present a challenge in terms of continuity of care and magnify the need for the development of electronic health records within first nations communities.

How can e-health and telemedicine help?

I don't want to present e-health and telehealth as the silver bullet; I think a number of things need to be fixed. They do, however, hold the potential for a number of different things, such as evidence-based policy development. "Give me the damn data"—I've heard that already this morning. I would echo that, for many different reasons.

They also hold the potential for increasing efficiencies by reducing transportation costs. This is another huge issue for the budgets we're trying to live with within the non-insured health benefits plan as it pertains to medical transportation. Certainly, that's another issue for my colleagues from Manitoba here, and for those first nations communities.

They also certainly could provide educational opportunities for nurses and community members; more safely manage and store health information with the community; utilize electronic health records to improve coordination of care between jurisdictions, which is a constant challenge for first nations clients; and ensure a circle of care as patients move between those jurisdictions.

As was mentioned already this morning, while the federal government, Canada Health Infoway, and the provinces and territories have made advancements in the deployment of e-health technologies and the development of electronic health records for Canadians generally, first nations e-health projects have tended to take a bit of a back seat. Investments in infrastructure, applications, and capacity development have not been made at a level that would allow for the electronic data exchange required to support health care service delivery to its fullest potential.

I know it's still a struggle across the country, and certainly what we're trying to do is keep pace. As all of you surely know, the 2004 health accord did call for the development of an electronic health record for all Canadians, and we simply want to ensure that first nations are part of that effort.

● (1120)

Without significant and sustainable investment within first nations communities alongside the development of technologies that align with federal and provincial-territorial systems, the wellness gap for first nations will remain.

Despite all of the challenges I've mentioned, jurisdictional, financial, and capacity challenges, e-health and telehealth projects are under way in first nations communities across the country.

The Mustimuhw cEMR, developed by the Cowichan Tribes in British Columbia, is up and running, for instance, and that has expanded to other provinces as well as other communities within B.C. I believe Saskatchewan and Manitoba are utilizing it as well.

The development of comprehensive and integrated information management and information technology services as a key feature in the exciting B.C. tripartite process is going on right now and is moving quickly toward implementation.

I would also mention that an exciting client registry project is being undertaken in Ontario by the Kenora Chiefs Advisory. The project has already joined seven first nations communities into a single database and has recently been awarded funding through the Health Services Integration Fund to accomplish numerous tasks, including developing first nations-led governance structures that support integration and address legislative and policy issues around integration.

There is also one that I think my colleague here is involved in with the trilateral working relationship in Manitoba with the Manitoba first nations.

Where do we go from here? As a national-level advocacy organization, the AFN has neither the resources nor the mandate to engage in e-health projects on the ground. However, we continue to engage in projects that support first nations e-health activities. For example, the Assembly of First Nations has taken early steps to engage first nations and federal-provincial-territorial partners in discussions to accelerate the journey toward e-health alignment, convergence, and clinical data integration.

On June 20, 2012, the AFN teamed up with COACH, which is Canada's Health Informatics Association, with the support of my colleagues from FNIHB and Canada Health Infoway, to co-host the First Nations eHealth Convergence Forum. Attendees included chief information officers and information management e-health staff from the provinces, territories, the federal government, and first nations e-health leaders. We're working to ensure that the watershed discussions at this event are not lost, and certainly we're working toward moving that forward.

Other projects currently under way include the development of an e-health strategic framework to assist first nations in developing and implementing fully aligned e-health projects based on first nations principles and priorities. As well, one of the other issues that we need to deal with, of course, is data sharing, so we're working on a data-sharing agreement guide that will provide first nations communities with many of the tools required to develop their own data-sharing agreements as they venture into this field and look to align themselves with federal and provincial systems.

It is worth noting that the e-health infrastructure program at FNIHB is up for renewal in 2013, and support from this committee here today would be greatly appreciated, so that FNIHB and first nations can continue to bring the transformative potential of e-health technologies to the communities that need it most.

In closing, I would like to take this opportunity to encourage committee members and this government to engage with first nations, provinces, and territories in coming to the table to recommit partners to achieving priorities of national importance, including the development of health technologies, to all Canadians, including first nations. I would also say that the renewal of the 2014 health accord could provide that opportunity.

With that, thank you very much, Madam Chair. I would be happy to take any questions.

• (1125)

**The Chair:** Thank you very much for your very helpful information today.

We'll now go to Kathy Langlois, acting assistant deputy minister. You may begin your presentation.

[*Translation*]

**Ms. Kathy Langlois (Acting Assistant Deputy Minister, Regional Operations, First Nations and Inuit Health Branch, Health Canada):** Good morning.

On behalf of Health Canada, I would like to thank you for inviting me to speak today on the issue of emerging technologies within the context of first nations and Inuit health.

[*English*]

I am joined by my colleague Ernie Dal Grande, who is the national manager of e-health programs at the First Nations Inuit Health Branch at Health Canada. He will be happy to answer any detailed questions you may have.

First Nations and Inuit Health Branch investments in emerging technologies are targeted at improving the effectiveness and efficiency of health services delivery in first nations and Inuit communities. We promote the development and uptake of emerging technologies such as e-health systems, tools, and practices that encourage innovative health care delivery practices.

Today I will discuss our work in e-health and investments we are making in emerging technologies for nurses and community-based workers.

The e-health infrastructure program supports the development and adoption of modern systems of information and communications technologies for the purpose of defining, collecting, communicating, managing, disseminating, and using data to enable better access, quality, and productivity in the health and health care of first nations.

This program evolved out of the increased need for Health Canada to align with provincial governments towards the increased use of information and communication technologies to support health service delivery and public health surveillance. It works in close partnership with other federal departments, such as Aboriginal Affairs and Northern Development Canada, Canada Health Infoway, provincial governments, regional health authorities, the private sector, and first nations leadership and communities, including the Assembly of First Nations.

Three major activities for the e-health infrastructure program are telehealth, connectivity, and Panorama.

Telehealth technologies assist in extending basic and specialist health services and health promotion and disease prevention education to underserved areas, particularly in remote and rural areas where many first nations communities are found. Telehealth also provides professional support and continuing education opportunities, which helps in recruitment and retention of health professionals.

There are currently over 300 telehealth or video-conferencing sites in first nations communities, offering a wide range of services such as tele-visitation for family members, tele-education for workers, tele-diabetes, and tele-mental health, with future plans to introduce more clinical services in communities. For example, as of March 2012, there were 26 first nations communities with telehealth services in Manitoba, with almost half of the total events identified as clinical in nature.

Telehealth in Ontario is supported primarily through Keewaytinook Okimakanak Telemedicine, or KO Telemedicine, which provides access to health providers and services in 27 first nations communities. In addition to telemedicine, 71 first nations communities have access to video-conferencing equipment for administrative and educational uses and can access Ontario Telehealth Network and Keewaytinook Okimakanak Telemedicine educational sessions.

As to connectivity, sustainable broadband connectivity is the key basic element for modernizing community-level service delivery, especially telehealth in first nations communities. The better the connectivity, the better the quality and range of telehealth clinical services available to communities.

In an effort to better leverage regional, provincial, and private sector connectivity infrastructure investments and to maximize first nations access to broadband services, First Nations and Inuit Health Branch and Aboriginal Affairs and Northern Development Canada are working together to better invest in and support first nations community connectivity.

For example, it was announced in July that Health Canada, in partnership with SaskTel and the Federation of Saskatchewan Indian Nations, will invest \$5.8 million over five years to supply 83 first nations communities with better Internet access, allowing Saskatchewan first nations to gradually add more community-level e-health services to their health care system.

In addition, the northwestern Ontario broadband expansion initiative, which my colleague spoke about, worth \$81 million, will bring a state-of-the-art fibre optics network to 26 Nishnawbe Aski Nation, NAN, communities in Ontario's far north. This includes a federal investment of over \$23 million, a provincial investment of \$32 million, and private sector investment of \$26 million. Our branch's direct investment is \$2.7 million. So you can see the power that we have in leveraging other resources.



Panorama is a bilingual, electronic management and surveillance tool for front-line health care workers dealing with communicable disease. The integration of first nations and Inuit clients within provincial efforts to implement Panorama, including shared services, standards, and training, will lead to more effective public health service delivery.

● (1130)

This tool will support the identification, management, and control of infectious disease cases and outbreaks that pose a threat to the public's health. It will enable Canadian health care professionals to collect, share, and analyze a wide range of health information critical to the management of communicable disease and immunization issues at the regional and FPT levels. This system has been developed, and certain provincial implementations will proceed in 2012-13—I should say they are proceeding in 2012-13.

Another key initiative related to emerging technologies is to provide increased access to nurses who work in remote and isolated first nations communities.

Some examples include that several nursing stations in Alberta have piloted the use of remote pharmacy services to support client education, information, and monitoring of medication. They also introduced new software to effectively manage prescription labelling and the maintenance of medication inventories.

In Alberta a centralized nurse practitioner on-call service has been established to provide consultation and treatment to support the primary care nurse on duty in remote and isolated communities, effectively supporting 24/7 delivery of primary care.

Robotic telemedicine functionality was successfully tested in a remote Inuit health clinic in the Atlantic region, involving the efficacy of digital X-ray via robotic technology.

The patient data assistant—hand-held technology—is enabling nurses in Saskatchewan to access clinical information to support patient care and education.

Several e-learning programs and tools have been very successful in demonstrating effective and efficient access to education, professional development, and training for nurses and other health care providers practising in remote and isolated regions.

In addition to nurses, you will know that communities employ a range of workers, which include maternal child health workers, mental health workers, community-based representatives, and home care workers, just to name a few.

Another way that we support the uptake of emerging technology is in training for these community-based workers. Through distance education they are provided with more opportunities to have the skills and certification comparable to workers in the provincial-territorial health care system, including training of first nations health managers to run effective health systems.

Training programs that use innovative distance education models are strongly encouraged, as they allow communities, where access to educational opportunities can present certain challenges, to access those services, and it helps reduce the overall cost associated with training.

Our longer-term vision in Health Canada is that first nations and Inuit will have access to the same quality and availability of e-health services as the rest of the Canadian population. Our branch, the provinces, and first nations communities all face the common challenge of sustaining the quality, safety, accessibility, and productivity of first nations health services, while exercising greater accountability in a tighter fiscal environment.

As I've discussed today, we are working with other jurisdictions on innovations to modernize and transform the way health services are delivered in order to contain costs, but also to better manage health information so that we can practise greater accountability and evidence-based decision-making.

FNIHB's investments in emerging technologies support the development and diffusion of health technology to improve people's health through innovative e-health partnerships, technologies, tools, and services.

Health Canada is committed to achieving a fully integrated, sustainable health service for first nations and Inuit communities that gradually adds more community-level e-health services and that enables front-line health care providers to use these technologies to improve health delivery and outcomes.

I'd like to thank you for the opportunity to be here today to speak with you about these issues. My colleague and I will be happy to answer your questions.

● (1135)

**The Chair:** Thank you very much.

This has been an extremely interesting panel this morning.

We're going to begin with our Qs and As for seven minutes, beginning with Ms. Davies.

**Ms. Libby Davies (Vancouver East, NDP):** Thank you very much, Madam Chairperson.

Thank you to the witnesses for coming today. I feel like you've provided us with so much information, it's hard to know where to begin to follow up.

My colleagues will actually address some of the questions as they relate to first nations, so I won't deal with that; you'll hear that later.

I'll go back to the slides that were put up for the Centre for Global eHealth Innovation. This may be obvious to you, Dr. Cafazzo, but I'm not sure it's obvious to all of us. In your slides—I don't know whether we can get them back up there—on page 3 of your handout, it talks about the improved health outcomes for home dialysis, and you list, as you said, these awesome outcomes.

I actually don't understand why. What is it that caused the improvement? Was it just being better off at home? It's not clear.

I have one other question. You listed another one about blood pressure with a Blackberry, and you said there was a 20% drop in risk of heart attack or stroke—that's on page 6. Again, I'm just not quite clear on what's happening that causes it to happen. I do have one other question, so maybe I could put them both out there.

Maybe all of you could address the second question. I think what you're telling us is incredible. The concern I have is about accessibility. How do we make sure that these issues are addressed across the board? To hear what Manitoba is doing is really exciting. I'd like to know what you think Infoway should be doing more of to make sure that you're completing your project in Manitoba or elsewhere, and how do we ensure that there is equity across the country?

We had one witness at the health committee last year who said that Canada was a country of pilot projects, and everybody laughed. In actual fact, it's really true, so we have all of these amazing projects going on, but how do we ensure that there is some sense of sustainability and continuity, and a sense of equity across the country? To me, this is going to be a question that comes up again and again in this study we're doing.

I'd like you to address that, but could I briefly get the first question answered first? I didn't quite understand it.

• (1140)

**Dr. Joseph Cafazzo:** The mechanisms in terms of how home hemodialysis improves these health outcomes are that...normally when a patient with end-stage renal disease uses conventional hemodialysis three times a week in a hospital setting, the renal replacement therapy they get brings back about 15% of their renal functions. With home hemodialysis, they can dialyze more frequently. They dialyze nocturnally, which brings up their renal replacement to about 50% to 60%. That means there are fewer toxins in the blood, and hence they can conceive, they can bring a pregnancy to term, and all of these other health outcomes improve. Our kidneys work 100% of the time. When someone has end-stage renal disease, they may have no residual kidney function, and again, conventional therapy only gives them about 15% of that function back.

It's simply the fact that they can do dialysis more frequently in the home.

**Ms. Libby Davies:** What about blood pressure monitoring?

**Dr. Joseph Cafazzo:** The behavioural mechanism around that is—what we believe happened—because this application prompted them to take their blood pressure measurements on a more regular basis, these patients became more aware of their blood pressure. They took their medications more frequently, and the follow-up was closer.

For those patients, again, hypertension was asymptomatic. With the patients who had none of that engagement with a conventional blood pressure monitor, they often forgot. We suspected that the group hadn't used the blood pressure device very frequently, and obviously hadn't taken their medications on a more regular basis. It is a behavioural intervention in the end.

**Ms. Libby Davies:** Okay.

Could I get some response to the second question about the accessibility equity issue and how we address it? If I could sharpen that up a bit, what does the federal government need to do to ensure that it happens across the country?

**Mr. Roger Girard:** Let me start.

I've been in the health care informatics industry for a very long time. Ten or twelve years ago it would have been impossible to come to a table like this from different provinces and be speaking the same language on this topic.

One of the major improvements that Canada Health Infoway has introduced over time, and it has been a long battle these last 10 or 12 years, is in making sure that we are aligned. My presentation made mention of the fact that we are more aligned across the country on the topic of information and in the use of information than we've ever been. This doesn't mean that we're where we need to be. The provinces are at different stages just by virtue of the way the health care system works.

To give you an idea of access, increasingly it doesn't matter where you are. I think a lot of the examples Dr. Cafazzo used are of the leading-edge innovations that are happening. But increasingly, even for the simple things—I mentioned diagnostic imaging—if all of the radiologists are in the south and none of them are in the north...now it's possible to get the same radiology service in the north, if you're a resident of the north. You don't have to travel to the south to get these services. That's huge, for a person who chooses to live in the north or in a rural isolated community. That's one example.

The telehealth examples are very mature. We've been doing telehealth in this country in virtually every jurisdiction now for 12 years. We do a lot of it, because we have to. That's where our people are.

I think information is becoming democratized, if you will. It's not only the people in the south who have access to information; it's the folks everywhere across the province. That's what we're doing increasingly.

Your question about equity and pilots is an interesting one. I've heard that quotation as well. If you actually travel the country and see what's going on in the field of e-health in every province, and Manitoba is certainly no exception, there are a lot of really good projects under way.

• (1145)

**The Chair:** Thank you very much, Doctor.

**Mr. Roger Girard:** Thank you, Madam Chair.

**The Chair:** We'll now go to Dr. Carrie.

**Mr. Colin Carrie (Oshawa, CPC):** I want to thank the witnesses for an excellent presentation so far today. It's hard to know where to start, but I want to talk with Dr. Girard.

In your presentation you mention that "in 2010, Manitoba went live with eChart Manitoba, which is our EHR, a service that has delivered 100% of all Manitobans towards this goal". I'm from Oshawa, Ontario, and I've been following Infoway. I realize that from a federal standpoint we've put aside \$2 billion, I think it is, and we'll pay up to 75% as reimbursements to provincial and territorial governments that are implementing these things.

I'm extremely impressed with what you've achieved over the last few years. Could you elaborate a little concerning the funding you received from Infoway to implement these goals for electronic health records in your province? Also, could you help us out, those of us who live in other provinces, concerning some of the challenges you've encountered and how you overcame them?

**Mr. Roger Girard:** First of all, I appreciate the promotion. It's "Mister" Girard, but I'll take "Doctor".

The way you go about implementing an electronic health record in a small province—it's a large province geographically, but a relatively small province by comparison with Ontario or Quebec or some of the other larger jurisdictions—is a bit simpler, but it has the same moving parts, so it's very complex.

We have a project on which we spent roughly \$40 million implementing this over the space of four or five years. It was co-funded with Infoway, roughly 50-50. I'm not going to suggest to you for a second that it was easy, because it wasn't. It's the standardization of data and making sure that the information you're getting, which has been collected historically using different data standards, and the whole aspect of change management.... How do you introduce these systems so that a physician can use or access the information without any extra steps? They don't have time to hunt around looking for information.

There are many changes like that. It becomes easy, once you put them into practice, because it's infectious. Even physicians have approached me, physicians who have said that this isn't really going to make a big change in their practice. In actual fact, they've noticed that they've learned something and that it is making a difference.

Change is a lot easier to introduce when there's value associated with it, and our program, which we branded eChart Manitoba, is beginning to deliver it. It's hard to keep the genie in the bottle, if we even wanted to; it is really everyone who wants a piece of it. Our resources now are being stretched to the limit just keeping up.

That includes first nations, by the way. We went live on our first nations site about a month ago. We were very proud of that, because it shows the partnership that we're now having across the country, which wasn't there before.

I forget whether you had a second question, but hopefully that answers this question.

**Mr. Colin Carrie:** That's great.

I do have some more questions. I look at northern Ontario and at Manitoba, and we're neighbours and share geography. One of the programs you put in is the telehealth "Reclaiming Hope" program, whereby you're working with remote communities. I've read that it involves televisions, cameras—the whole bit—whereby you link psychiatrists from Winnipeg with first nations youth, who can sit in a private room in nursing stations. One of the things we've heard is the problem of sometimes getting the right professionals to these remote areas.

Could you comment on how effective that program is? And do you have any numbers on how much it's saving in medical transportation expenses and things like that?

**Mr. Roger Girard:** Yes. It's in my report. We did a study with Canada Health Infoway, just for the Manitoba portion of our clientele. We estimate \$2.6 million of patient savings. It's family savings, in most cases, because the burden of transportation for Manitobans—in first nations situations, it's a different formula—was \$2.6 million worth of savings and about a million kilometres of travel that was avoided.

If you're meeting with a specialist at a distance, this is like having the person in the same room. We have dozens of testimonials from patients all over Manitoba who have done this.

I'll point out also that the telehealth program in Manitoba supports northern Ontario. We interconnect with KO Telemedicine, the network that my colleagues spoke to. We support Nunavut in the north. We're good partners, because they are our clientele also. We do work wherever our customers are, and our customers are in the far north and to the east and west of us.

It's very exciting, and the value.... We have stories—there were some stories given, and I could give you more—that touch the heart. When you connect families at great distances, it's pretty heart-warming.

•(1150)

**Mr. Colin Carrie:** I am concerned. I'm a chiropractor, and the therapy that chiropractors give is hands-on. I can see telehealth and telemedicine really helping for certain things.

When technology is overused, or when people are not getting the care they want face to face with health care practitioners, what do you suggest could be done to address this challenge?

**Mr. Roger Girard:** Well, not all health practices need a doctor hands-on, certainly not a specialist. This does not replace the health care practitioners—the nurses, the nurse practitioners, and so on who are in these communities. The whole area of self-care is a different topic; Dr. Cafazzo spoke a bit to that.

I think the point is that if you make a difference with 20% or 30% of the clientele, you have a substantial impact upon services to a remote community—let alone the reduction of transportation and so on. This doesn't have to address 100% of the population, just a subset of the population.

**The Chair:** Thank you so much, Mr. Girard.

We'll now go to Dr. Fry.

**Hon. Hedy Fry (Vancouver Centre, Lib.):** Thank you very much, Madam Chair.

I must say that way back before the 2004 health accord, when among the objectives were e-health and telemedicine and the use of these new mediums, everyone knew what it could do because there had been discussions about what it could do. I want to say that the presentations here today have shown us that the evidence proves that it actually does work.

Looking at chronic care management, as you talked about it, when you don't need a physician, but you can get your digital MRI, you can get quick work done to be able to say what should be done in an immediate manner in isolated areas. We've talked about aboriginal health because many aboriginal people live in isolated and rural areas, so that is obviously important.

The ones that really impressed me were the education and information and the incentives that go to the patients themselves. I think the youth incentive is extraordinary, with the apps and giving them IT for whatever...that was a real incentive to get young people who don't tend to take their illnesses seriously to be able to do so.

Again, the ability to get acute care in a timely manner—when you talked about the digital MRI, whether it allowed people to make a decision with regard to their chest X-ray, etc., I think all that tells me that this is important. One thought it would work in 2004 when the premiers and the Prime Minister decided to bring in the accord; one thought it would work when one put money into the accord over ten years. You have shown through evidence that it is a good way to save money, in terms of delivery and management of health care, which can be put into other things that we need to look at.

Money was set aside within the accord for this as a prime objective, so why don't we see all provinces moving to this? Having put the money aside for this, why don't we see more work done through direct care for aboriginal peoples? What are the challenges and the glitches that are preventing this from being done?

**The Chair:** Who would like to take that question? Please go ahead.

•(1155)

**Mr. Jonathan Thompson:** Thank you.

From the first nations' perspective, one of the challenges does remain at a very fundamental level, and that is in relation to connectivity. A number of communities still don't have what it takes to operate this technology. I can't speak for the provinces in terms of the pace at which they've undertaken this work.

As Mr. Girard mentioned, Manitoba started off maybe a little behind, but they focused their efforts and moved on. It is a very complicated issue when you start looking at electronic health records, electronic medical records, privacy, and data sharing. All of these issues have to be undertaken.

I'm sure all of those factors, along with many others, had a role to play in terms of the pace of the provincial uptake of this technology. One of the challenges for first nations remains jurisdiction. Of course, we do work with Canada Health Infoway to some extent. We would like to work with them more, but their primary relationship is with the province. Again, we're somewhat challenged by trying to manage the jurisdictional patchwork for provision of health care services for ourselves, certainly for first nations, and that extends to this issue as well.

So there are some really fundamental issues for our first nations communities, like connectivity and capacity. The jurisdictions certainly have to have or have to find that capacity to undertake the work that needs to be done to ensure that the technology they put in place is not only appropriate for their needs, but also is able to speak to the provincial jurisdictions. That's the point I made earlier about our clientele going from the federal jurisdiction to the provincial jurisdiction and the need for that. All of those systems need to be talking to one another.

**The Chair:** Thank you.

Yes, Mr. Dal Grande.

**Mr. Ernie Dal Grande (National Manager, eHealth Program, Primary Health Care and Public Health, First Nations and Inuit Health Branch, Health Canada):** We talked about being a country of pilot projects. I'd like to add, from the first nations health system, that this sparked the nation to change. Without the pilot projects in the last 10 years, we wouldn't have had the clinicians and the health managers actually seeing the benefits of e-health. In the first nations system, when we began we started to see the benefits of telehealth and electronic health records. So I think it's a natural evolution that has happened.

In the jurisdictional discussions between the provinces, the federal government, and first nations, with three partners having to work together...e-health has actually brought the three jurisdictions together to have a complex discussion around policy. This is the area on which we've spent the last four or five years working with the Assembly of First Nations, around aligning our policy discussion and our strategic vision.

Each of the provinces has their own e-health strategy. With the federal government, through FNIHB, we have an e-health strategy. We're working with AFN. We now have three strategies that are aligning around the vision of a blueprint through Canada Health Infoway, provincial strategies, and federal ones.

Most important are the first nations and listening to what the communities want to do, so we have spent our time going through needs assessment processes, really trying to listen and learn what the communities want, and what are their priorities.

I think 10 years was required, but I think we're at a very good point to go forward.

**The Chair:** Mr. Girard.

**Mr. Roger Girard:** If I might add a few more words, just to step back a little, from a province-wide point of view, first of all, I believe.... You could probably get a copy of the scorecard from Infoway. Infoway actually measures the performance of every province. I believe there are activities that are quite similar in every province of Canada. Obviously, the provinces are at different stages, and that's just the nature of the beast. It's 10, 12, or 13 different jurisdictions trying to move towards a common goal, and we're at different places in time.

I remember 10 years ago Infoway came out with a very high-level estimate that it was going to cost \$10 billion for the country. They also said there was a \$20 billion return on investment for that, but it was going to cost us \$10 billion. I think they were a little bit low on that estimate, as all these types of projects go. But if we take that as a given, we're just beginning this journey. It's going to take us a while, so the idea is to sustain it, and part of the problem is that we're just beginning.

**The Chair:** Thank you, Mr. Girard.

We'll now go to Mr. Strahl.

**Mr. Mark Strahl (Chilliwack—Fraser Canyon, CPC):** Thank you, Madam Chair.

Thank you for the presentations.

My riding in British Columbia has over 30 first nations communities, so my questions will focus on that, largely.

You mentioned, and it's a good point, that obviously it's not possible to deliver telehealth services if there is not sufficient broadband infrastructure in those communities.

For Ernie or Kathy, I wonder what percentage of first nations communities in Canada have access to sufficient broadband network for these types of services.

• (1200)

**Mr. Ernie Dal Grande:** The number, which I just looked at today, is that 90% of first nations either have consumer-grade or industrial-strength...so 10% still don't have connectivity in very remote areas, but we're working towards it. We've made big improvements over the last 10 years in working with Aboriginal Affairs and with Industry Canada, the two main departments, so I think we're making great strides.

What is happening, though, is that as there are more and more business demands from our health professionals, it's putting a strain on the bandwidth at the community level. So we work together in a holistic way with Aboriginal Affairs...to the school, to the health station, to the band office, to the water treatment facilities. The amount of bandwidth continues to increase, and we're seeing that.

**Mr. Mark Strahl:** Thank you.

I have another question for you. We were excited to announce the tripartite agreement in British Columbia last year, I believe. How has that agreement improved with the coordination of the delivery of e-health or telehealth services in first nations communities? Has it made it easier, and if so, are we close to similar agreements with other provinces if there has been an improvement in the delivery?

**Mr. Ernie Dal Grande:** I'll speak to the B.C. activity in e-health.

B.C. first nations have always been leaders in e-health, and there is an acknowledgement that that's going to really improve access to care and changes.

The most important thing is that it's brought three jurisdictions around the table, which is chaired by first nations; so the head of the first nations health authority actually sits there with the provincial government and the federal representatives, and the first nations make decisions around what are their priorities in e-health.

They just received Canada Health Infoway approval of \$4.5 million. We'll be deploying telehealth to a number of first nations over the next couple of years. They have investments in the health-grade network to all their communities, so B.C. first nations, over the next two or three years, I think will see great improvements to health care.

**Mr. Mark Strahl:** Excellent. Thank you very much.

I want to go now to Dr. Cafazzo.

You mentioned the vast improvements and the cost savings that have been realized through your project. Whenever there's change, there's resistance to change. What has been the reaction of health care workers to seeing a patient do a job for themselves that they may have previously done? How have those front-line health care workers reacted? Have they been cooperative, or has it been a challenge to bring them onside with this?

**Dr. Joseph Cafazzo:** That's a great question. In the case of home hemodialysis, the cost savings are essentially the fact that the patient is taking over the role of the nurse, which is significant. Nursing ratios went from 2:1 to 20:1 as a result. Quite honestly, with the increasing prevalence of diabetes and end-stage renal disease, there's plenty of work for nurses to do. This problem will just get worse, and the fact is, because of some of the technological barriers right now, we can offer only about 25% of the patients with end-stage renal disease a service such as this. I don't think that was a particular problem, and those nurses at Toronto General are still employed—they're just dealing with more patients coming through the door now.

As for the hypertension study, you're absolutely right that when we first approached them about this, family doctors did not like the idea. They felt they were going to be looking at reams of new data that they didn't get paid for, but they are also faced with a situation that they're not totally equipped to deal with—this influx of patients with serious chronic conditions. We designed the system so that they only receive exceptional readings, so very high blood pressure readings need attention, but most of the time they see nothing from the patient. As we've shown, there was no increased number of visits and so on.

I think if you ask most physicians, if a patient is doing well and their workload is not impacted, it's a win-win for both parties.

**Mr. Mark Strahl:** Great.

Do I have any more time?

**The Chair:** You have two minutes.

**Mr. Mark Strahl:** Mr. Girard, you mentioned the answer to changing things started in 2006, when you created Manitoba eHealth, with an increased commitment in funding. Where did that funding come from? Did you find efficiencies in your current funding envelope? Was there a reallocation of funds or an infusion of new funds, or perhaps a combination of all those things?

Every level of government is obviously...today, I heard the term "economic tightening". I believe that's a new phrase for me.

How did you come up with this new funding to move forward?

●(1205)

**Mr. Roger Girard:** As you suspected, it was a little bit of everything. Certainly, the availability of Infoway dollars and some of the projects I mentioned were key because it created the right kind of momentum for the province to co-invest according to the standards of Infoway. A lot of these projects, the digital imaging project and so on, were funded probably about 50-50 with the province.

That was a big ticket, a very important one. There are savings, there's no question. The evidence is clear that a system that is well automated is more efficient than a system that isn't. We can demonstrate the savings in many different ways—savings, efficiencies, patient safety, those types of things. However, in the health care system it's hard to extract those benefits, to monetize them, and that's been a challenge.

**The Chair:** Thank you.

Now we're going to go to our five-minute Qs and As. You have five minutes, not seven.

We'll go to Dr. Sellah.

[*Translation*]

**Mrs. Djaouida Sellah (Saint-Bruno—Saint-Hubert, NDP):** Thank you, Madam Chair.

I want to start by thanking the witnesses for being with us today to speak about technological innovation in health care.

My first question is for Mr. Thompson of the Assembly of First Nations. If I still have time after that, I will have a question for the Manitoba eHealth Program representative.

Realistically, given the conditions first nations peoples are living in today, would you say you need technology or, more importantly, decent housing, drinking water and affordable food?

Having visited some of these areas at the beginning of the year, I am clearly thinking about the situation facing the Attawapiskat First Nation and the price of food in the northern communities. People there have to pay more than \$50 a kilo for roast beef, over \$8 for a 2-litre carton of milk, \$14 for a kilo of dry spaghetti on sale, and \$20 for a cabbage.

I am not trying to say that meeting people's basic needs and encouraging technology and innovation are mutually exclusive. However, what do you think needs to be done to ensure that first nations have access to quality health care and a better quality of life? It is clear that prevention is paramount when it comes to health.

My second question is for Mr. Girard.

Why do you think Manitoba is further along in adopting electronic records than the rest of Canada?

[English]

**The Chair:** Mr. Thompson, would you like to take those questions to begin, please? Then maybe we'll go to our other aboriginal section.

Go ahead.

**Mr. Jonathan Thompson:** Thank you, Madam Chair.

It's funny, I was thinking about whether I might get that question today: what's the one thing? I think I alluded to it earlier when I said e-health and telehealth are very important. But it isn't a silver bullet; it's not the one thing that is going to radically remove, or quickly remove, or magically remove, the health disparities for first nations people, particularly in those more northern and remote communities.

Absolutely, social determinants to health play a huge role—housing, education, poverty, mental health addictions, and the list goes on. So, really, that is the answer. It is a multitude of things.

But in terms of e-health and telehealth, technology is something that those communities can take advantage of to bridge that divide and increase access to certain health professionals.

That would be my answer.

• (1210)

[Translation]

**The Chair:** There is also Ms. Langlois.

[English]

Did you want to comment on it, Ms. Langlois?

**Ms. Kathy Langlois:** No.

**The Chair:** Okay.

Now go on to the second part of the question, Mr. Girard.

[Translation]

**Mr. Roger Girard:** Thank you.

You said we were further along, or we appear to be, in Manitoba than in the rest of the country. First off, I cannot comment on the situation in the rest of Canada. We have contractual commitments with Infoway. That was one of the themes of my presentation, in fact. When we deliver a product across Manitoba using Infoway funding, we have to abide by a legal contract with Infoway, and that determines our direction.

It is very important to understand that we are part of the Winnipeg Regional Health Authority. Therefore, we focus on clinical care. We aren't talking about an imaginary idea, but a tangible reality with an immediate value. So we delivered a clear product. We did, however, need four or five years to develop it. It didn't happen overnight.

[English]

**The Chair:** Thank you, Mr. Girard and Dr. Sellah.

We'll now go to Mr. Brown.

**Mr. Patrick Brown (Barrie, CPC):** Thank you, Madam Chair. There have been lots of interesting comments so far today.

I noticed in the brief Mr. Thompson put forward to our committee that:

...First Nations eHealth projects have tended to take a back seat. Investments in infrastructure, applications and capacity development have not been made at a level that would allow for the electronic data exchange required to support health care service delivery to First Nations.

Kathy, perhaps you could comment on that concern.

**Ms. Kathy Langlois:** Yes, I'd be happy to comment.

Not to disagree with my colleague here, but I would like to indicate that from a First Nations and Inuit Health Branch point of view, we have worked very hard to ensure that first nations do not take a back seat. Indeed, at last count, our investment total over five years is \$131 million—and I'd have to say it is more than that number, because we haven't counted in the aboriginal health transition fund projects. There are elements of those that have also focused on e-health.

So at a minimum, we have \$130 million, and counting, over the last five years of investment in this area, in all the areas I have indicated to you. That money has been used to actually leverage provincial investments, working with our partners in the provinces—Manitoba is a great example—to bring multiples of funding, based on any specific investment we've made.

We recognize that our strategy needs to align with the provinces, which work very closely with Canada Health Infoway, in a common approach. We have no interest in taking any different approach than that, just to make sure we are aligned with where provinces and territories are going, so that first nations will both get best advantage of what the federal health services offer and also access provincial and territorial services.

Our goal is to avoid that situation completely.

**Mr. Patrick Brown:** Jonathan, do you feel you are not seeing on the ground the \$130 million investment? What advice would you have for making sure we see value for investment that is obviously quite substantial? Obviously it's alarming to see that you feel it takes a back seat.

**Mr. Jonathan Thompson:** Certainly I won't argue with the amount of money my colleague has referenced. As this entire panel has mentioned, we're off to a good start, but we have a long way to go.

We have been challenged, as I mentioned earlier, with some of the jurisdictional issues arising out of the emergence of Canada Health Infoway and its more direct relationship with the province. We're working with them on that. I certainly would agree with Mr. Dal Grande's comments on that point, and I referenced that as well.

Again, I'll have to go back to some of the infrastructure issues that need to be addressed in first nations communities, which would allow a more rapid and full expansion of that technology to communities.

I'm not exactly sure I agree with Mr. Dal Grande's numbers around communities that are not yet equipped with sufficient bandwidth to engage with e-health. My numbers are a little higher. But I don't want to quibble about that, really. It's about working together to identify those gaps and getting the right people at the table to address them in a manner that is well thought out, timely, and in alignment with what's happening with the provinces, the federal government, and first nations communities.

• (1215)

**Mr. Patrick Brown:** This is more of a general question.

I remember that at this health committee a few years back we studied electronic health records. At the time, I recall being told that P.E.I. was actually the most advanced in the digitalization of health records and that Ontario was near the bottom. As an Ontario member of Parliament, I found that concerning. Do you have any updates on how you find the province of Ontario is faring?

I know from when I go back home that our local hospital is a wonderful hospital, but it's certainly not digitalized. Given the amount of investment into digitalization we've seen from Health Canada at all levels, my questions are these. When are we going to see it happen, at what stage is Ontario, and why would Ontario be behind other provinces in that progress?

Yes, Ernie.

**Mr. Ernie Dal Grande:** My experience in working with eHealth Ontario over the last number of years is that it has taken quite a different track.

Here in Ottawa, as you know, the hospitals have gone to iPads, etc. I know that my family physician, for the first time, has deployed an EMR. We're starting to see a lot more deployment in Ontario.

We have an excellent relationship with the province around first nations. The Ontario Telemedicine Network allows first nations into the provincial network.

Its strategy, from what I understand, is to start in greater Toronto and then to move out to other parts of the province. I think we're seeing progress, from my—

**The Chair:** I'm sorry, your time is about up. Thank you.

Now we'll go to Dr. Morin.

**Mr. Dany Morin (Chicoutimi—Le Fjord, NDP):** Thank you very much.

My first question would be to Mr. Girard. My colleague, Libby Davies, asked you a question earlier, but I think you ran out of time to answer.

Do you remember the question?

**Mr. Roger Girard:** No. Could you repeat it?

**Mr. Dany Morin:** It was about the importance of sustainability of those great pilot projects and how we can make sure they are implemented throughout Canada and that their level of funding is available each year.

**Mr. Roger Girard:** There are two parts to this answer. First, if you look at e-health writ large, the large issue of e-health, it divides up into two pieces. There's one piece that is funded by Infoway, so

Canada Health Infoway has a program of funding. Generally speaking, to my understanding, the provinces are all tracking pretty close to each other on that part of it. It's a fairly small piece. For the sake of the discussion, say, it's 20% of the cost, so everyone's working on registries and the components of the Infoway blueprint.

I'll stop there, and if you have any questions, I'd be glad to answer them later.

Where we see difficulties today across Canada—it's a little bit the answer to the Ontario question and others—is on the 80%. Infoway doesn't fund hospitals. Until recently, Infoway didn't fund EMRs, doctors' offices. Since the last tranche of funding from Infoway, that's being funded. Those gaps are closing very, very quickly in the provinces that have taken up those investments. But hospitals are out, the community is out, long-term care is out, home care is out, the personal health record that we talked about is out, etc. There are lots and lots of gaps in the system yet. We've made some huge progress, don't get me wrong, but there's lots to come.

**Mr. Dany Morin:** Okay, thank you.

My next question is to Mr. Thompson.

I don't know if you remember, but in 1997 there was the Royal Commission on Aboriginal Peoples, which recommended that we needed 10,000 aboriginal health care providers. Although I think it's great that we can make sure that technology and e-health can help those communities, do you still believe we need more aboriginal health care providers on the ground?

**Mr. Jonathan Thompson:** Thank you.

Yes, we certainly do. There have been some efforts, through some of the work we've done with them on that issue, but, yes, absolutely. One of the biggest challenges, for instance, in a lot of the communities and the nursing stations is recruitment and retention. We would certainly love to see efforts geared toward that. But it's not only the nursing profession; it's MDs as well, and mental health professionals. It's a long list. Certainly that ties, of course, into the education discussion, which I'm not sure we want to get into today, but that certainly is still a goal, and there's a big gap that still needs to be filled there for sure.

• (1220)

**Mr. Dany Morin:** Thank you.

Dr. Cafazzo, you mentioned how important health care is, and I fully agree with you. In your opinion, how could this type of self-care help those communities?

**Dr. Joseph Cafazzo:** We actually did do a pilot in Chapleau, Ontario, a couple of hours out of Timmins. Again, with the significant type 2 diabetes population, some of the challenges we faced at the time were infrastructure problems. The use of the mobile phone in some of those rural areas was difficult. I think those have been addressed, but because of the lack of access in those remote areas, it's actually a fantastic opportunity to deploy in those regions. Again, some of the studies that we did were in the mid-2000s. Since that time, a lot of the infrastructure issues...and the use of mobile phones as a conduit for self-care can be very effective in those communities.



**Mr. Dany Morin:** Thank you very much.

I believe my time is up.

**The Chair:** You have about 30 seconds, if you talk fast.

**Mr. Dany Morin:** Thank you very much for your presence today.

**The Chair:** Thank you.

Dr. Morin always contributes so many good things, and I thank you for that, Dr. Morin.

We now have Mr. Lobb.

**Mr. Ben Lobb (Huron—Bruce, CPC):** Thanks, Madam Chair.

My first question is for Mr. Girard. I'm talking about integration and digital imaging. Obviously, this has been around for quite a while. If I go into the X-ray department and get an X-ray on my shoulder, does that X-ray automatically go into my EMR?

**Mr. Roger Girard:** No. The EMR is the record that is usually being used by the physician. It's semantics, I realize that. The electronic medical record is being used by the doctor in their clinic, supporting their clinic. The image itself usually doesn't go into the EMR. The report will go into the EMR, so it will be the transcription.

What we'll do is put the image in a big repository and the doctor can get access to it anytime they want. It's not technically inside the EMR.

**Mr. Ben Lobb:** Okay. The report would be from the radiologist who puts it into the EMR.

**Mr. Roger Girard:** Correct.

**Mr. Ben Lobb:** Okay.

Mr. Cafazzo, it's the same question on immigration. You talked about the app on the iPhone for kids who are doing their diabetes... Do those results go into the EMR?

**Dr. Joseph Cafazzo:** We're somewhat agnostic at this, but we used some personal health record tools such as Google Health, which is now defunct. There are others, like Microsoft HealthVault, and the Canadianized version of that is TELUS health space. There are others that FedDev have invested in called the Connected Health and Wellness Project out of York University.

Yes, we believe the data cannot be orphaned. It has to be part of a personal health record that's shared with the provider. In the instances that we've used it, the endocrinologists at SickKids actually had access to that information through TELUS health space. Eventually, TELUS health space could be integrated with the EMRs, and the EHRs as well.

**Mr. Ben Lobb:** It's not there yet, but down the road it could be.

**Dr. Joseph Cafazzo:** That's right. Absolutely.

**Mr. Ben Lobb:** Mr. Girard, I'm just wondering about software companies.

Obviously, there are a lot of jurisdictions to deal with. I guess the provinces would be free to pick whatever software provider they want. Is there a software provider today that is leading the way in getting the job done for the provinces? Are there a variety of

different software companies that provide this? Could you shed some light on this here?

**Mr. Roger Girard:** Unfortunately, when we're dealing with physician's offices—if we can just limit the discussion to physician's offices and the automation of physician's offices—we have three vendors in our province. We worked with the doctors to select three vendors. They tend to be vendors that are more regional. If you look at the way the industry is set up in Canada, they tend to be vendors who have regional perspectives. Very few operate Canada-wide.

•(1225)

**Mr. Ben Lobb:** With that comment, then, that's going to create some problems down the road when you try to connect each province. I'm not questioning the strategy because obviously we need the health records and the whole thing. This isn't the first time a country has embarked on this initiative. Are we looking at repeating some problems, or are we creating some problems that are going to occur down the road? If so, how are we going to fix them?

**Mr. Roger Girard:** We don't believe so. We believe we can handle those three different vendors. There is information sharing amongst physicians who are using different ones of these two or three vendors, and maybe across in Saskatchewan, if you're in a border community, and so on.

**Mr. Ben Lobb:** I'm from Ontario, so let's use Ontario as an example. Are there any vendors that Ontario uses that you would use as well?

**Mr. Roger Girard:** I'm not sure of the total. Ontario has a very long list. I suspect we have vendors that are on their list.

**Mr. Ben Lobb:** It could be or it could not be. Let's assume it may not be, and let's assume Quebec also uses software companies that are not the same as yours or Ontario's. What is the strategy, in a couple of years, five years down the road, for connecting all this together, so that if Jim moves to Manitoba and then moves to Quebec, it follows him through. I guess that's the initiative. That's going to be a problem, obviously.

**Mr. Roger Girard:** It's going to be a very pleasant problem to have, because the information we will have will be automated. It will already be captured electronically and I'll actually be able to send it over. Hopefully, it will make sense when you get it and it's not Greek. The Manitoba version may be Greek to Ontario. That level of standardization has not yet occurred. It's occurring slowly but surely. It would be a pleasant problem to have.

**Mr. Ben Lobb:** In Manitoba you're fairly well along here now. Obviously, we're doing this for two reasons. One reason is to have more information quicker, to provide better care. Also, you mentioned cost savings. If you're looking at a return on investment, cost savings versus costs, I wonder if you can bring us up to date on what Manitoba projects as a cost saving and also what they've spent to date on e-health records.

**Mr. Roger Girard:** I mentioned in my presentation that we spent \$240 million roughly since the beginning of the year, of which roughly \$67 million came from Infoway. The savings were identified by Canada Health Infoway many years ago as roughly two to one, a \$10 billion cost and a \$20 billion return on investment. We're still dealing with that level of investment. I could show you studies that show the savings and the efficiencies in hospitals and in doctor's offices, and so on, but that's pretty much it.

**The Chair:** Thank you, Mr. Girard.

We'll now go to Mr. Kellway.

**Mr. Matthew Kellway (Beaches—East York, NDP):** Thank you, Madam Chair, and thank you to all of you today for providing such interesting and informative presentations.

Dr. Cafazzo, I want to start with you. I think it was slide—I can't really tell—2 or 3 from your presentation, which unfortunately I can't read right now, but it's about the costing.

I think what all of your presentations implied to some extent is that e-health implies patient self-care, as your presentation does, and probably a higher amount of home care for folks. There's been a lot of discussion and justification of e-health and home care on the basis of the economics of it all.

I wonder if we are accounting for the costs. I don't question that it's more economic and that there are other benefits to that in your presentation, but I wonder if we're actually accounting for the costs of home care properly. This occurs to me because I was asked to speak at a conference on respite services in Canada, and in my research into the issue I found there were enormous hours being put into health care by non-health care professionals at home, and an enormous burden with health care outcomes on the folks people rely on, depend on, for their so-called self-care or home care.

When we do the economics of home care, are we including all the right measures for this?

• (1230)

**Dr. Joseph Cafazzo:** I think you make a very good point. We do not really capture the informal caregiver's contribution. That family member who has decided to retire early to care for a spouse in the home—those are billions and billions of dollars of unaccounted for informal caregiving within the system. The point I want to make is that those individuals are left in the dark in terms of how to manage the care of a loved one. They don't have the information. They are left unable to coordinate care or have information about the loved one they're caring for.

I'm sure there have been studies on trying to capture that informal caregiving, but we should be leveraging that. We should be encouraging that, and we should be enabling them to do it more effectively. A lot of them have made many personal sacrifices in order to do this, and we still don't give them the basic tools in order to make themselves and their loved ones healthier and happier in the end.

**Mr. Matthew Kellway:** The other issue that arose from your conversation—and I'm looking at Yvonne here and her wonderful and really heartwarming success story. I do wonder, too, what percentage of the population are Yvonnés. How many folks are in fact able, for whatever reason—social determinants, maybe their

particular health issues—to participate in this e-health patient self-care?

**Dr. Joseph Cafazzo:** As it stands now, for something as serious as renal failure, it's estimated that only about 25% of patients are eligible, largely because of cognitive limitations, physical dexterity, and vision issues. Some end-stage renal disease patients have other serious comorbidities. Yvonne was young and relatively healthy otherwise. However, it has been 10 years, and the mounting evidence has shown that there is strong evidence to suggest that this is the way to go, to home hemodialysis. What's encouraging is that there are new technologies coming out that have been built specifically for the patient to operate or for an informal caregiver to operate.

You saw the image of the machine there. That was designed for a nephrology nurse to operate. They're unnecessarily complex. The marketplace has been adjusting now to create technologies. That 25% could be 50% or 75% of people being able to do dialysis effectively in the home.

**Mr. Matthew Kellway:** Thank you.

Mr. Thompson, I was wondering—

**The Chair:** Sorry, Mr. Kellway, you're out of time.

**Mr. Matthew Kellway:** Madam Chair, I was looking over at you this time for my signal and you were busy chatting, so—

**The Chair:** I know you were. I was just tending to business here.

Thank you very much.

Ms. Block.

**Mrs. Kelly Block (Saskatoon—Rosetown—Biggar, CPC):** Thank you very much, Madam Chair.

I too want to welcome you here. It's been a good discussion so far. I had the privilege of being a board member of the Saskatchewan Health Information Network 13 years ago when it was first created. It seems to me that some of the compelling reasons we had for creating...Treasury Board was to address the challenges of providing equitable health services to individuals living in both rural and remote communities, and also wanting to move from a provider-centred health system to one that does prioritize itself to the patient, as you've mentioned.

I guess seeing where we are today, seeing all of the progress we've made and hearing some of the examples that Health Canada has shared with us, what I'm wondering is, in terms of all of the partnerships that need to be developed when you're moving forward with an electronic health record... Again, I recall having to get physicians onsite, nurses onsite, pharmacists onsite, and developing platforms that were going to work for all of these different groups. It wasn't easy, and there was an observation that even if we had all of the financial resources in place, this was going to take time, and I think that's borne itself out.

I'm wondering if you could talk a little bit about some of the challenges you faced, and in particular address some of the issues for our first nations communities.

If anybody else wants to add something to that, I'd open it up for that.

• (1235)

**Ms. Kathy Langlois:** My colleague is the one who has been managing these challenges, so I'll let him speak to it.

**Mr. Ernie Dal Grande:** We have spent an enormous amount of time together with health professionals and with first nations leadership just discussing the concept of e-health and telemedicine in many of those sessions. I think we're at a tipping point now where people actually understand the benefit: our health colleagues were resisting change—and change is not an easy thing—so it was not only with first nations, but internally within the federal bureaucracy. Our own program people who are busy did not embrace the concept of technology, but that attitude has changed.

That was probably the number one challenge, the capacity to understand what e-health was. It's a complex term. We throw around different terms all the time: m-health, mobile health. It keeps changing. The technology keeps advancing, so it's hard to keep up sometimes with leadership. But I think first nations health managers have taken the leadership on this and are not asking, why e-health, but when e-health.

**Mrs. Kelly Block:** Okay, good.

Anyone else?

Are there other technologies that can be used in the future to make health care in first nations communities better and more effective?

**Mr. Ernie Dal Grande:** I think what we're seeing in the area of telehealth, which has been where we've invested most of our resources over the last 10 years...we constantly see change in that area to more mobile technologies now: the use of iPads, tablets, iPhones, etc. The technology is getting easier to use from a remote. Tele-ultrasound—where before you might need a technician there—can be manipulated from a distance. We're piloting that in a B.C. first nations community right now, monitoring ECG from a distance.

I think there's such a broad range of technology that could impact the communities. The real challenge is getting the health professionals to decide which one and where's the best cost benefit.

We're just completing an e-health evaluation in first nations, the first comprehensive evaluation at the community level. It's being conducted by the University of British Columbia and Calgary. That report will be due in February. I think we'll get a really good idea of what's going on and where communities want to go, so I'm pretty excited about that.

**Mrs. Kelly Block:** Thank you.

**The Chair:** You have about 45 seconds, Ms. Block, if you want it.

**Mrs. Kelly Block:** I guess I would follow that up with a question. Just in terms of the community members and individuals who do end up accessing health care through e-health services, is there a downside for them to accessing health services through telehealth instead of having that personal contact, that face-to-face contact with someone?

**Mr. Ernie Dal Grande:** I think that's exactly it. In most cases where you have, for example, a physician who flies into a community, has a relationship, and then leaves the community and

actually uses telehealth, I think the building of that personal touch with community members has been vital and important, and it has brought the health professionals together.

**The Chair:** Thank you very much.

We'll now go to Mr. Lizon.

**Mr. Wladyslaw Lizon (Mississauga East—Cooksville, CPC):** Thank you very much, Madam Chair.

Thanks to all the witnesses for coming here today.

The first question I have is for Dr. Cafazzo, to continue with the amazing story of Yvonne, who does this self-dialysis. You've already mentioned that this procedure is available to about 25% of patients.

**Dr. Joseph Cafazzo:** Up to 25%.

**Mr. Wladyslaw Lizon:** Up to 25%.

Now, as for the machine itself, is it designed for a specific case or is it standardized?

**Dr. Joseph Cafazzo:** No. In the cases of the home hemodialysis programs that you see now, they are conventional machines. As you perhaps can see in one of the photographs, they're designed for a 5'4" nurse standing in front of the machine to operate it, so initially the patients had quite a lot of difficulty with operating the machine from their bedsides. A lot of them do it overnight—nocturnally.

So yes, these machines are conventional machines that were designed for hospital settings. Only recently have a few companies been addressing this directly and creating machines that can be operated from the bedside and that have been greatly simplified for patients and informal caregivers to operate.

**Mr. Wladyslaw Lizon:** Who does the maintenance? Someone has to maintain the machines.

**Dr. Joseph Cafazzo:** It's still based out of the hospital setting or the clinics, so the training is done by nephrology nurses. It usually takes six to eight weeks to train a patient on how to perform home hemodialysis. The maintenance and the supplies are all done through the hospital or clinic.

• (1240)

**Mr. Wladyslaw Lizon:** So basically this is a hospital machine.

**Dr. Joseph Cafazzo:** Yes.

**Mr. Wladyslaw Lizon:** It's owned by the hospital.

**Dr. Joseph Cafazzo:** Yes.

**Mr. Wladyslaw Lizon:** Are there any other treatments planned in the future? For example, can a patient be trained to have an infusion pump or other things at home?

**Dr. Joseph Cafazzo:** Well, the point I want to make is that I can't actually think of a form of self-care that is more exceptional than home hemodialysis, other than performing surgery on yourself.

**Voices:** Oh, oh!

**Dr. Joseph Cafazzo:** If patients are able to do something as invasive as home hemodialysis, imagine just managing blood sugars or blood pressure.

The point I was trying to make is that patients have this immense capacity if the circumstances are right. Again, these patients are not unique. There are thousands of patients who are doing this around the world now. I think that's just an indication of what's possible—again, if the circumstances are right.

**Mr. Wladyslaw Lizon:** Thank you.

My second question would be for Mr. Girard. While it's very good to hear that there is a system that works in one province, can you share your opinion with us? My home province of Ontario does not have a lot that the province of Manitoba has in the system. Is it possible for provinces to get together and, instead of reinventing the wheel, get one system in place and work on it?

**Mr. Roger Girard:** Would it be possible? Anything's possible, but it's very unlikely in the system we have. There is the question that one size does not fit all. A solution for Manitoba doesn't always fit in Ontario, because Ontario is ten times its size.

I would encourage you in Ontario to look a little closer at... Ontario may have had difficulties, but it has also had some tremendous successes. A short while ago, Mr. Dal Grande mentioned some of the innovations that are taking place in the Ottawa region, which we're very familiar with. An ex-Manitoban is helping to lead some of those challenges. The same is true in Hamilton. The same is true in London. The same is true in places in Toronto and so on. It's innovation at a different level, perhaps, and the difficulty that Ontario and some of the big jurisdictions have is that they perhaps lack the infrastructure elements at the province-wide level.

I will point out that Alberta also has a system like ours. I believe somebody mentioned Prince Edward Island. Some of the Maritimes are coming very close. We're getting there. Certainly, Saskatchewan is there, and they're rolling out their system as we speak.

We're there. It's just in time. As somebody says, this is the perfect moment for a lot of this. This overnight sort of transformation has taken ten years.

**Mr. Wladyslaw Lizon:** We were talking about remote areas. The riding I represent is an urban riding in Mississauga. What's proposed for people in urban areas? We have another challenge that they don't have in remote ridings that—

**The Chair:** I'm sorry, Mr. Lizon, your time is up.

Could you just quickly reply to that, Mr. Girard?

**Mr. Roger Girard:** Urban settings are much easier to solve. I think if you went into Mississauga, you would see that the hospitals in and around the Mississauga area are doing that today.

**The Chair:** Thank you.

Go ahead, Dr. Fry.

**Hon. Hedy Fry:** Thank you very much, Madam Chair.

I'm going to come back with the question I originally asked, because I think it follows on Mr. Lizon's question. The question Mr. Lizon asked was, basically, is it possible to share best practices. The

other question is, why aren't all provinces doing it? I'm going to ask it again.

When the 2004 health accord was signed, money was given to all provinces on a proportional basis to initiate this. Why didn't they all do it? That is my question. Were there any challenges other than lack of money?

I was given some very good examples by Mr. Thompson with regard to aboriginal peoples for whom the federal government is personally responsible, and I still didn't get an answer from the federal government about why they didn't get doing this in 2004, even given the challenges you told me about, Mr. Thompson, with regard to infrastructure needs, etc. So I'm asking it again.

This isn't only about innovation for innovation's sake, right? This was all meant to be able to look at how we can sustain medicare, how we can bring down costs, how we can have better chronic care, fewer hospital beds, and people who live in isolated and rural areas having better access to health care.

This is all a part of a really big question. I still haven't got the answer as to why everybody didn't do what they were supposed to do with that portion of money allocated in the 2004 health accord. I'm still asking that question, and I would really like to get an answer.

Maybe you guys are the wrong people to give me the answer, but I'm still trying to figure that one out, because it hasn't happened really. Some people have done well, but other provinces have ignored that. What did they do with the money?

● (1245)

**Dr. Joseph Cafazzo:** Are you asking specifically around the Infoway infusion?

**Hon. Hedy Fry:** Yes.

**Dr. Joseph Cafazzo:** Well, I think as Mr. Girard mentioned, although it was a significant amount of funding, there was always the expectation that there would have to be provincial matches, even down to the local level—in Ontario, the LHINs. Even at the hospital level there would need to be substantial investments to realize that.

Working within the University Health Network, a large academic health science centre within Toronto, I can tell you that even with the Infoway money, even with some provincial initiatives...the hospital has lots of priorities in terms of delivering patient care, and interoperable health records is just one priority. Certainly, patient self-care is just another of a long list of things it needs to do.

Quite frankly, with the situation in Ontario right now with the provincial finances and our hospital with a 0% increase in base funding, it's very hard to just maintain and tread water, let alone look to the future and innovate in that respect. That's just the reality of the situation.

So, yes, there was money set aside, but as Mr. Girard has already said, there was never an expectation that would fully cover the cost of doing a pan-Canadian electronic health records system.

**The Chair:** You have about a minute and a half.

**Hon. Hedy Fry:** All right.

I don't want to belabour this. I won't beat it over the head, but it still doesn't answer my question. I still think there's political will involved here and at the local levels in deciding whether provinces are going to make a decision to do what they were asked to do and what they were given money to do or to take it and do something else with it.

This could have moved us down the road to looking at savings. I don't know, what was it, \$12,000 a year, that was saved per patient with regard to something as small, in terms of a group, as a cohort of people doing dialysis at home? But we're talking about other things, like the management of chronic disease, blood pressure, diabetes, etc. Those all could have realized savings in the system that could have gone to other things within the same system. That was the whole idea of it.

We heard from the reports that came out on the accord that some of this wasn't happening as well as it could. And the sharing of best practices was part of that objective. People were supposed to say, look what I'm doing in Manitoba and here's how it's coming about, and look at how well we're doing—and that still hasn't happened.

I'm not going to beat it about, but my big question is, what sorts of other savings did you note—travel costs being one, etc.—to the system that could come out of using some kind of electronic e-system, in terms of managing chronic disease and managing some—

**The Chair:** I'm sorry, Dr. Fry, your time is up.

Would someone like to briefly go through that?

**Mr. Roger Girard:** Let me try it. I'm sorry for this, but there isn't a single, simple answer. Unfortunately, that's just the nature of health care, and you know this very well.

I can use the example of hospitals. There are many studies showing that electronically enabled hospitals are far more efficient and can save lots of money, just in the hospital sector alone. If we could move people out of the hospital to be cared for in the community, that would save larger sums of money. Moving it out of the community into the home would save even more money.

Without information systems, you can't do these transitions. Do you have the political will to go out there and make the changes that are fundamentally necessary to the health care system? Maybe that's the question.

**The Chair:** Thank you very much.

Ms. Davies.

**Ms. Libby Davies:** It's been a very good discussion and we appreciate all of the information.

First, I want to follow up on a point Mr. Kellway made. Then I have a second question.

With respect to informal caregivers, I was at a breakfast this morning where the whole topic was work-life balance, and one of the points I made at that breakfast was that we now have 1.7 million Canadians who are caring for 2.3 million seniors. What was interesting was that 70% of those people are working, so you're

talking about people who are already really busy and stressed out. Then suddenly they're caring for an elder parent. Maybe this is a whole other area of application, which leads to my second point.

If you could project 10 years from now, where do you think we will be, and where do you think we should be? Are you confident we're going to make some pretty major advances, or have we reached some sort of peak? Is there still a lot of stuff that's going to happen? Where do you think we'll be in 10 years on this issue?

• (1250)

**The Chair:** Could we get a comment from each individual panellist on that? It's a very good question.

**Dr. Joseph Cafazzo:** I think the 10-year timeframe is a good one. It's not moving as quickly as I would like, and I've been in this for 15 years. We need to reprioritize the initiatives around the referral practices for patients so that the interoperability of records and the flow of information is such that patients have access to that information sooner.

We're preoccupied with provider-to-provider information right now, both in Infoway strategies and eHealth Ontario's strategy. They have mentioned the patient, but it is always in the subsequent phase. Informal caregivers need this information as well in order to manage the care.

Personally, I would like to see a reprioritization of patient initiatives so that we don't necessarily need to wait for 10 years for easier access to information. You have electronic access to lab results in British Columbia. That is an innovation. It's an incomplete record, but things are moving along in B.C. and Alberta. Health services are planning a personal health record within the next few years.

**Ms. Libby Davies:** You mean the patient would actually have access to this information?

**Dr. Joseph Cafazzo:** Yes, the patient and her informal caregiver.

**Ms. Libby Davies:** Right.

**Dr. Joseph Cafazzo:** That's critically important.

**The Chair:** Mr. Girard.

**Mr. Roger Girard:** I think a 10-year horizon is necessary because the job in front of us is so large. I'm an optimist. I believe in 10 years from now you're going to see some huge improvements.

I caution against the silver bullet syndrome. There is a tendency for us to believe there's a chunk of money, and we're going to turn the corner on this particular problem. That's dangerous. It doesn't work that way.

I wouldn't want to be admitted to a hospital that isn't automated. They hurt a lot more people than hospitals that have these types of technologies, and that's just the bottom line. The evidence is there.

To operate a hospital in 2012 without these kinds of technologies is dangerous for a doctor. Many doctors have commented on this. For a doctor to practise without an electronic medical record is dangerous. To allow anybody to practise without the information and the tools he needs to practise safely is not on, in my opinion, and we need to address all of those things.

I fully agree with Dr. Cafazzo that it's moving into the home and to the individual, and self-care is where the action is going to be. I'm hoping 10 years from now that we're going to start seeing some real progress in that area, but we have to deal with the basics.

**Mr. Jonathan Thompson:** Where will we be in first nations communities in 10 years? That's a good question. I would certainly like to see several regions be well on their way to keeping pace with what's happening at the provincial level. Of all the aspects that these gentlemen referred to, certainly self-care, home-care, I think would be a hugely important thing to focus on, particularly for many of the communities we're concerned about.

As well, one of the other things that was kicked about earlier today is the pilot projects. We certainly need to get away from that in first nations communities, such that we can count on adequate, sustainable, predictable funding going forward, so that the work that needs to be done in a very thorough, well-thought-out manner can happen, so that we're not planning year to year, but for five and 10 years. We'd love to be able to plan 10 years out and know what the dollars would be to support that work.

**Ms. Kathy Langlois:** Thank you.

From a First Nations Inuit Health Branch perspective, our overriding goal is to ensure a more integrated system—not a parallel system between what is federally funded and delivered on first nations communities and then a parallel system with the province, but rather an integrated approach, where all of the services are working together in a continuum of care.

My colleague here, in that context, has a few ideas that he would like—

• (1255)

**The Chair:** I have to cut this off now. I'm sure we all have lots of wonderful ideas, but there are only five minutes left. I'm sorry about that, but we went quite a bit over that time.

Because your input is very important, I have the privilege to ask you the last question from my side of the House and as chair of this committee.

What we're hearing is a thread through all committees. Number one, we have an aging demographic. Number two, a big part of the federal pie and the provincial pie, money-wise, is put toward health care. Everyone is saying now that we need to think outside the dots. What I'm hearing over and over again is that for the first time the patient is an integral part of that. The patient is not only someone who goes to the doctor and gets cured or gets fixed; the patient is now an integral part of that procedure.

We're hearing a strong emphasis on healthy living and preventative medicine. With those components, and thinking outside the dots in terms of e-technology, how would you make sure that the patient does get the electronic health records? We have privacy laws.

We have all sorts of different factors that go into that, and there's a very complicated distinction between federal and provincial jurisdictions.

Having said all that, are there any very good innovative ideas that someone would like to come forth with in about three minutes?

Mr. Cafazzo.

**Dr. Joseph Cafazzo:** Very quickly, as far as the privacy issue is concerned, there is absolutely no reason why we cannot have patients access their personal health information. The legislation is clear in terms of them being the owners, and the providers are custodians.

**The Chair:** I'm referring to their caregivers more than the patients themselves.

**Dr. Joseph Cafazzo:** You're right to say that there's a practical aspect to it. With records that are in mixed paper and electronic form, for the patients to practically access it, is an issue. There are fees that are charged to do the photocopying, so there are these systemic practical considerations. I don't have an easy solution, because from hospital to hospital, from care provider to care provider, it is a different scenario.

**The Chair:** Thank you.

Would anybody else like to make a comment on that?

**Mr. Roger Girard:** The very nature of providing clinical records over an electronic application means that you identify the patient. The very fact of collecting the information in a way that is not bound to a site.... Imagine the hospital of the past, with rooms full of charts and the archives that are sent away in big armoured trucks and everything else. When you create electronic health records, they are, by their very nature, shareable because they are easy to move around and so on. You create some challenges from a privacy point of view, but I fully agree, these challenges can be easily surmounted. With the patient's consent, it's not an issue in any case. I think we're heading in that direction.

I would ask people to remember the last time you booked an airline ticket and you had to use—

**The Chair:** Maybe with that I'll just let Ms. Langlois end it. She's put her hand up, and we have just two minutes.

**Ms. Kathy Langlois:** I am responding to your question about thinking outside the dots and thinking about where we need to go in the future here. My colleague has mentioned the determinants of health. What we're increasingly doing, besides electronic work and the e-health work, is looking for strategies for communities to develop their own strategies, their own capacity, so they can address their own determinants of health. That is the piece for us that's clearly thinking outside the dots.

**The Chair:** This has been an amazing committee. We could stay here all day with you and not run out of questions. I want to thank each and every one of you especially for being here today. It's exciting. This committee just whipped by today. Every time someone started to speak, we learned something new. I want to

thank you so much for that, and, committee, I want to thank you so much for your questions.

We are dismissed.

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