



Canada E-Health 2000: From Vision to Action

- William J. Pascal -

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Imagine the "ideal" health care system for Canada. Borderless. Seamless. Accessible in all reaches of the country. Delivering fast, accurate diagnosis and treatment. A system where health care providers are equipped to focus on prevention and evidence-based treatment. Where all points of care (homes, schools, family practitioners, community clinics and hospitals) are linked. Free from red tape and wasteful duplication. Offering individuals the tools to take control over their own health. Where the privacy, security and confidentiality of personal health information is respected.

That is indeed the vision for Canada's health care system. It's based on e-health or the application of information and communications technologies to improve the quality, accessibility and effectiveness of health care. It features a pan-Canadian electronic health record, a range of telehealth services, and trusted health information for all Canadians. It is focused on the needs of patients, practitioners, administrators, policy makers, researchers and the general public. It uses the Internet as a major delivery mechanism, but isn't limited only to the Internet.

E-health is not about replacing in-person care or simply cutting health care costs. Rather, e-health is about enhancing the quality of care, providing choices and supporting self-care as one of those choices. It's also about increasing the overall effectiveness of the system so that we get more for our tax dollar. E-health is key to re-engineering Canada's health care system.

In October 2000, almost 400 of Canada's key health stakeholders came together to discuss where we are today with e-health and what is required to take e-health from vision to reality.

Canada E-Health 2000: The Timing

Apptly called *Canada E-Health 2000: From Vision to Action*, the conference was a natural follow-up to recent "Vision 2020" consultations

with key stakeholders about how information and communications technologies could best be employed to modernize our health care system.

The timing was auspicious. Canada E-Health 2000 took place on the heels of a breakthrough First Ministers' agreement on health. That agreement includes a federal-provincial-territorial government commitment: to strengthen our health infostructure; to develop an electronic health record (EHR) system; to enhance telehealth; to work collaboratively to develop common data standards to ensure compatibility of health information net-

works; and to ensure stringent protection of the privacy, confidentiality, and security of personal health information. In support of the agreement, the Government of Canada has committed \$500 million to accelerate the adoption of information technologies in health care.

With a shared vision, clear political will and the financial resources to move forward, Canada E-Health 2000 participants were buoyed by a strong sense of momentum.



Health Canada Assistant Deputy Minister Denis Gauthier to E-Health 2000 participants: The conference gives us an opportunity to reflect and re-consider where we are going.

Canada E-Health 2000: The Participants

A broad spectrum of stakeholders attended Canada E-Health 2000, including physicians, nurses, representatives of health associations and health NGOs, federal, provincial, and territorial government officials, health administrators, academics and researchers, privacy advocates, and some private sector players. They came to discuss their e-health activities, priorities and progress. They voiced their concerns and shared ideas about their directions and priorities. They met others like themselves, who have embraced what technology offers to health and health care. At the Info Fair they visited booths hosted by the Office of Health and the Information Highway (OHII) on the Canada Health Infoway and new EHR and telehealth databases. They also viewed booths from various Health Infostructure Support Program (HISP) projects, Statistics Canada, the Canadian Institute for Health Information (CIHI) and a number of provincial health networks.

Canada E-Health 2000: From Vision to Action Plan

In his opening remarks conference moderator Denis Gauthier, Assistant Deputy Minister, Health Canada spoke of the opportunity the conference offered to expand our thinking, knowledge, and ability to put in place the pieces that will eventually become a robust health infoway that will contribute to improving the health of all Canadians.

Tactical Plan Priorities

- ◆ Electronic health record
- ◆ Integrated provider solutions
- ◆ Health information for the public

speaking about ACHI's work to develop a Blueprint and Tactical Plan to move e-health from vision to action. The Blueprint builds upon the people-focused vision articulated in the February 1999 Advisory Council on Health Infostructure's final report "Canada Health Infoway: Paths to Better Health". This vision articulates four strategic goals for a Canada Health Infoway:

1. Empowering the public, to make informed decisions in their roles as patients, care givers, citizens and as physicians, health care professionals, researchers, managers and policy makers.
2. Strengthening and integrating health services.
3. Creating relevant information resources.
4. Improving the protection of personal health information.

To prepare the Blueprint and Tactical Plan, ACHI conducted a current state assessment on programs and projects in place across Canada. Key technical components were identified. A gap analysis looked at what is in place today and what is needed. Broad consultations were undertaken to identify priorities for future action. The resulting Tactical Plan identified three key strategic directions: health information for the public, integrated provider solutions and the electronic health record. All three directions are considered important and need to be pursued. However, because of a lack of emphasis to date, the EHR is seen as the critical gap needing immediate attention. Key areas for action include the development of national EHR standards and consistent privacy policies/legislation, and coordinated implementation across all jurisdictions. Successful implementation of the EHR also hinges on the development of practical, integrated provider solutions to support easy data entry and retrieval by front-line health care professionals. More complete, dynamic health information for the public is also needed. This will require building on the success of the Canadian Health Network (CHN), linking it to integrated provider solutions and to the provincial/territorial selfcare and telecare services already underway.

The Blueprint and Tactical Plan emphasizes the importance of collaboration, risk management and benefit sharing among all stakeholders. Such cooperation is needed to ensure the approach is needs-driven, involves providers and patients as co-architects, and incorporate principles of accessibility, interoperability, and privacy, confidentiality and security.

Canada E-Health 2000: Three E-Health Themes

Over the two days, more than 65 speakers contributed to 25 plenary and parallel sessions on various aspects of e-

health: Electronic Health Record, Telehealth and Health Information.

Theme 1: Electronic Health Record

These sessions explored the impact that electronic health record technology is now having in real-life health practices across Canada. Participants heard about how the Markham Stouffville Hospital has linked physicians, labs and the hospital to a single electronic network, permitting fast and efficient electronic documentation of the health care interactions of some 40,000 patients. They also heard from CLINICARE, a private company, about its work with 50 "chartless" medical practices. Other panelists provided details about various data capture and clinical desktop tools that are being used in practice environments with great success.

From these discussions, a clear message emerged. EHR is more than a lofty vision. Its benefits are tangible, measurable and meaningful — more time spent with patients, increased utility of patient files, less superfluous paperwork, better and faster diagnosis and treatment plans, greater opportunities for consultation among providers.

A broad consensus about the challenges still ahead for EHR also emerged. Physician adoption is a concern - one panelist reported that only 3-5% of physicians are using electronic patient records. The slow adoption rate is understandable given EHR is about more than just digitizing paper records. It represents a significant change in traditional approaches and requires significant up-front investment of time, energy and money. To embrace EHR, physicians must be involved in the development from

Implementing EHR is a journey, not some slam dunk solution. Strategic investment and shared benefits. How might we proceed? Aggressively reasonable!

Dr. Tom W. Noseworthy, Chair, Senior Reference Committee
alberta we//net

the beginning. They need to see tangible benefits for their practices and their patients and a strong business case outlining material benefits. They need assurances about the reliability of the technology, the appropriateness of the user-interface, the availability of training and technical supports, and stringent safeguards of privacy and confidentiality. Most importantly, they need assurances that technology will not get in the way of caring for their patients.

In the meantime, participants agreed there is a need to move forward with the development of hardware, software and information standards, so as to ensure the interoperability of the EHR network as a whole.



Participants at the Canada E-Health 2000 Info Fair.

The EHR is widely touted as a critical key to modernizing health care in Canada. It will lead to better diagnosis and treatment. It will eliminate repetitive testing and history taking. It stands to make a major contribution to health surveillance, medical research and enhanced measurement of health system effectiveness. In all these and other ways, the EHR is a vital component of e-health.

Theme 2: Telehealth

Telehealth discussions highlighted how Canada is already breaking down geographic barriers and using telehealth to improve access to and quality of health care.

Across Canada, there are many telehealth programs and pilot projects as well as several province-wide networks. Telehealth is being applied to a variety of health services, such as nursing triage, diagnostic services, rehabilitation, consultations and continuing education for health professionals. For example, Info-Santé CLSC, a telerriage project throughout the province of Quebec, is currently handling 2.5 million calls per year, increasing citizens' capacity for self-care and contributing to more appropriate use of health services. Other projects, such as the IIU Telehealth Network in Nunavut, the National First Nations and Inuit Telehealth project and Saskatchewan's Northern Telehealth Network, are increasing the timeliness and accessibility of health services in rural and remote areas. In doing so, they are minimizing the need for travel and lengthy stays away from home, effectively easing the burden on patients and their families.

Still other projects, such as Toronto's Hospital for Sick Children TeleHomecare Project and the West Prince, P.E.I. Telehospice Project, are demonstrating the capacity of telehealth to enhance the humanity and effectiveness of ongoing monitoring and palliative care. These projects are demonstrating the benefits of delivering health care in the home where supportive family and friends surround the patient.

Participants agreed that successful telehealth initiatives are not technology-driven, but patient-driven, that is, they seek to meet an identified, legitimate patient need. Additionally, in successful telehealth initiatives, health care providers are consulted early in the design phase and are well trained and supported in their use of the technology.

"Health is no different (than e-business) - technology will force us to re-examine the system. It's not just automating what we do now, it's about doing things better."

Dr. M. Watanabe,
Past President, Canadian Society for Telehealth

New Brunswick Telecare Service Outcomes

- ◆ 42% of callers given self-care advice.
- ◆ 40% referred to walk-in clinics or their family physician.
- ◆ 13% referred to Emergency.
- ◆ 5% referred to other health care providers.
- ◆ 95% caller satisfaction levels.

Lois Scott,
VP Clinical Services &
Operations,
CLINIDATA Corporation

With telehealth, a health care provider located in one province can provide medical services to a patient located in another province without physically encountering the patient. Such a possibility raises important policy and regulatory issues that need to be addressed, such as cross-border licensure and reimbursement, as well as professional liability. For example, in some provinces, physicians are not reimbursed by their respective provincial health insurance plans; they take part in telehealth activity either on a voluntary basis or are paid through some type of alternative payment mechanism. Satisfactory progress in these



From left to right, Dr. Mamoru Watanabe, Canadian Society for Telehealth, Dr. Tom W. Noseworthy, Alberta we/net, Denis Morrice, Canadian Arthritis Society and Denis Gauthier, Health Canada

areas will be critical to widespread adoption of telehealth.

Participants also highlighted the importance of developing mechanisms to evaluate the cost-benefit and cost-effectiveness of telehealth services.

It is widely expected that telehealth will become increasingly commonplace as patients and health professionals recognize the speed and convenience that it offers. Patients will appreciate avoiding costly travel and precious time away from home. Practitioners will recommend telehealth as a means of providing care to their patients

where family and community supports can accelerate recovery. Potential funders and decision makers will watch with interest the results of evaluations on costs, benefits and effectiveness regarding existing programs and projects. The key is to ensure that the use of telehealth remains patient-driven rather than technology-driven. Telehealth is integral to e-health.

Theme 3: Health Information

Health Information discussions examined the information requirements of the general public, providers and public health officials. Participants embraced the concept that comprehensive, trustworthy and useful health information is fundamental to informed decision-making by all.

In discussions of the information needs of the general public, participants agreed that relevant, credible, timely and easy-to-understand health information is key to empowering Canadians to manage their own health. Such information includes the latest health news and research, self care information, resource directories to support better access to care, self-assessment tools, links to physicians, call centres and health discussion groups.

A number of real-life projects are already providing Canadians with access to trustworthy information on healthier lifestyles, the prevention of disease, self-care and the performance of the health system. For example,

When a health care practitioner accepts a call and provides medical advice to a patient, a duty of care is established and the provider is accountable for the advice given. What is less clear is whether that same duty exists when the caller is another practitioner or calling on behalf of someone else. And what are the requirements for follow-up with the patient after hang-up?

Patricia McLean,
Canadian Nurses Protective Society

New Brunswick's symptom triage and health information service is providing citizens with 24-hour, toll-free access to operators supported by automated decision support software. Veterans Affairs Canada has initiated projects at Royal Canadian Legions to teach veterans how to use the Internet to find information on health care options. The Canadian Cancer Society has created a toll-free information service that provides cancer information to cancer patients, their families, the general public and health care professionals. As well, the Canadian Health Network is demonstrating the benefits of providing a single access window to existing resources of over 500 health NGOs across Canada.

In sessions concerning the needs of health providers, participants agreed that providers need relevant and reliable data about health care practices, including clinical support tools, data on best practices, clinical practice guidelines, the latest in medical research and data on broad health trends in the communities they serve. They also require data and tools to support the business and administrative functions surrounding their work (e.g. medical claims information, journals, and information on continuing education).

As was the case in the EHR discussions, providers' attitudes towards the use of the Internet in the practice environment featured heavily in these discussions. One of the key success factors to get and keep physicians and other care providers online lies in providing the kinds of information they need through a single access portal. England's Doctors.net.uk, Nova Scotia's brand new DoctorsNS.com and the Canadian Nurses Association's NurseInfonet were all highlighted as examples of the enormous potential payoffs in this regard. Indeed, over the past five years, it was noted that numerous websites and online services for providers have emerged, many of which are bundling business services, journal services, and continuing education services.

Better health information through e-health will enhance the health system's capacity to monitor and protect public health. Participants noted that public fears about emerging diseases and health problems are growing in parallel with their expectations that public health officials should be able to protect them from these threats. They expect public health officials to be capable of detecting emerging health problems and to quickly provide the information Canadians need to protect their own health. They expect this for communicable diseases, consumer product threats to health, and chronic diseases such as heart disease and arthritis.

Participants heard about the US Centres for Disease Control and Prevention that have begun to implement a national electronic disease surveillance system (NEDSS). NEDSS is designed to automatically gather key data from a multitude of sources, perform ongoing analysis of trends, provide early detection of emerging health problems and provide guidance

for taking public action. Such a system may offer a useful model for Canada.

Whether for the public, providers, or for health surveillance, accurate, trustworthy, accessible, user-friendly health information is a critical component of e-health.

Conclusion

Communications technologies, from the alphabet and the printing press to the telephone and Internet, have been changing our lives for over 5,000 years. Even as we have come to recognize that technological tools can dramatically improve our lives, we are increasingly aware of the need to anticipate and manage their effects. This is particularly true in health where technology and medical knowledge are both advancing rapidly.

Canada's e-health stakeholders are poised to tackle the many challenges ahead: technological challenges; policy issues (privacy, confidentiality, security, licensure, liability, etc.); standardization; human resources and capacity building; and organizational and financial matters. There is also a need for: cultural change among both providers and patients; universal access; and infrastructure development, including both the hardware and technical supports.

Canada's health stakeholders show a high degree of maturity and commonality of thinking on the e-health vision for the future. They know that Canadians care a great deal about their health care system and want value for their tax dollars. They know that pressures on today's health care system demand innovative approaches. They know patients need reassurances that their health care system is not in crisis and is equipped to help them. They know that practitioners are ready to embrace technology where it can improve the care they offer. Furthermore, they know that the next generation of Canadians will demand e-health.

Canada's health stakeholders also appreciate the need for collaborative action. Today's collection of EHR, telehealth and health information initiatives are evidence that e-health is happening. The sheer magnitude of the required transformation of the health care system ahead of us, however, dictates the need for coordinated efforts to ensure Canadians get the health care system they need. In this regard, they look to Advisory Committee on Health Infrastructure, the Office of Health and the Information Highway and Health Canada for leadership.

Some survey results show that Canadians' expectations for internet-based information and service are already quite high. For example:

- ◆ Over 80% of Canadians want to ask doctors questions over the Internet.
- ◆ Over 80% want to make appointments online.
- ◆ Over 50% feel that referrals to specialists should be available by e-mail.
- ◆ Over 40% believe their prescriptions should be refilled over the Internet.

HealthInsider
Cited by Denis Morrice
President and CEO,
Canadian Arthritis Society

For further information about the Canada E-Health 2000 conference and other OHIH initiatives, visit the OHIH website at www.hc-sc.gc.ca/ohih-bsi/