
A Vital Link to the Future:

The Canada Health Infoway

BY MICHEL LÉGER

New information and communications technologies (ICTs) are key to strengthening Canada's health care system. The creation of a national health information highway – the Canada Health Infoway – will help to ensure that our health care system can meet the challenges of the 21st century.

The Canada Health Infoway (CHI) is a health information highway – an infrastructure or foundation for health services and health information (its development, analysis, adaptation, communication and use). The CHI is an ambitious, long-term undertaking which will take years to bring into being. The CHI initiative will build on the traditional excellence of Canada's health care system and provide a vital link to the future by harnessing and employing ICTs. The CHI will also provide Canadians with access to the latest, most comprehensive health information.

Not a single massive structure, the Canada Health Infoway will be a network of networks, building on a number of information initiatives that are already in place or under development at the federal, provincial and territorial levels.

The implementation of the CHI – which Health Canada is undertaking in partnership with all of its key stakeholders, including health care providers, other levels of government, and non-governmental organizations – will produce significant improvements not only in the quality of health information but also in the quality, accessibility and efficiency of health services across the entire spectrum of health care in Canada.

How the CHI Came About

The 1997 federal budget recognized that ICTs in health care should be high on the government's agenda.

The "patchwork" evolution of the Canadian Health Infostructure that had taken place to that point led Health Minister Allan Rock, in the summer of 1997, to create the Advisory Council on Health Infostructure. This 24-member Council, which included representatives from a wide range of stakeholders in the health sector, was tasked with defining ways in which new ICTs could be used to improve and enhance Canada's national health care system for the new millennium.

The Council made major recommendations to the federal Minister of Health in a report entitled *Canada Health Infoway: Paths to Better Health*. In this report, released in February 1999, the Advisory Council declared that setting up a nationwide health information highway could significantly improve the quality, accessibility and efficiency of health services across the entire spectrum of care in Canada. The Council urged all levels of government – federal, provincial and territorial – to collaborate with all stakeholders in the health care arena to realize the vision of a national CHI.

Following on the work of the Advisory Council, the federal, provincial and territorial deputy ministers of health established, in June 1999, an Advisory Committee on Health Infostructure, with working groups that are actively examining key issues related to the development and implementation of the CHI. These include: strategic planning, privacy of personal health information, health surveillance, electronic health records, and telehealth – all of which will play a vital role in any future national health information highway.

Benefits of the CHI

Empowering the Public

The CHI will give Canadians access to credible, timely health information, thus enabling them to make informed choices about their own health and the health of others. Individuals will be able to go on-line and access reliable sources of health information and to stay in touch with support groups across the country. They will also be able to obtain up-to-date, accurate information on treatment options, healthy lifestyles, and emerging health concerns.

Another key component of the CHI – which Health Canada is working to develop and which would form a key link in the information chain – is a system of electronic health records, which would be "portable" and accessible to health care providers right across the country (with safeguards built in to protect patient privacy). Electronic health records can give Canadians greater

control over who has access to their personal health record, and on what basis and for what purpose, than they have at the present time with our paper-based system. Strict and explicit controls would ensure that personal health records are accessed only by those with a "need to know".

Electronic health records can further empower individuals using the health care system by providing them access to their own personal health records – something that many Canadians have been demanding for some time.

The CHI will also improve the accountability of the health care system to Canadian communities and individuals by giving them access to information on how the system is performing, and by offering them opportunities to provide input into the formulation of health policies.

Strengthening and Integrating Health Care Services

The CHI will assist health care professionals and providers in improving the quality, accessibility, and efficiency of health care services.

Seamless delivery of patient care from one institution to another, and from one geographic area to another, will be enabled, thereby strengthening and integrating health services in Canada.

Telehealth services will allow the delivery of health care services to previously underserved or remote areas, and facilitate the efficient exchange of information between health care facilities, no matter where in Canada they are located. Whether they live in remote communities or in urban centres, Canadians can gain access through telehealth to clinical expertise, reliable health information, diagnostic tests and results, and a host of other health services that could spell the difference between life and death. Such services will also reduce the expense and inconvenience for individuals, of traveling long distances or leaving their families to obtain health care.

The creation of a national electronic health records system which, as mentioned earlier, is a priority for Health Canada, will help overcome the challenges posed by geography and the multitude of information systems that exist currently, which provide incomplete health information. The CHI will help to resolve interop-

erability problems posed by incompatible systems that can't "talk" to one another, and redundancies created by overlapping systems, and provide health care providers with a more complete record.

Electronic health records will promote safe, rapid, effective treatment for patients by allowing health care professionals, anywhere in Canada, access to patients' health records and personal medical histories (with stringent measures built in to protect patient privacy), 24 hours a day, seven days a week. This will reduce the likelihood of misdiagnoses, unnecessary and sometimes risky tests and X-rays, and expensive duplicate tests that might be undertaken if a patient's full medical history were not available.

Not only will this improve the quality and efficiency of care, it will also result in greater cost-savings and cost-efficiencies.

Creating Information Resources

Improvements in health information-gathering and availability, and the wise and strategic use of information, are key principles of the CHI, which will ensure that the health care system is fully accountable to Canadian taxpayers and users.

The CHI will give health managers valuable and much-needed analytical information and data on the health impacts, as well as the financial and administrative implications of their decisions. For example, the information that a national electronic health records system can provide to health care planners and administrators will enhance their ability to develop relevant health care policies for the future, determine trends, and analyze the health issues of various sectors of the population. It will make comprehensive historical and research data available that was previously unobtainable, and enable them to project a more complete picture of Canada's health.

Progress in Implementing the CHI

In response to Canadians' very vocal concerns about the future of Canada's health care system – given our rapidly aging population and the increasing costs of medical technology and health care – the federal government, in the 1999 budget,

injected an additional \$11.5 billion in transfer payments to the provinces to help build a stronger system based on timely access to high-quality care.

Investing in the creation and implementation of the CHI is an important part of Canada's health care strategy for the future. Of the \$1.4 billion of federal expenditures that the 1999 federal budget earmarked for the health care system, \$366 million will be spent over three years to develop the CHI.

Health Canada is supporting a number of key initiatives that will form important "building blocks" in the CHI's development. Three building blocks for which the Department is playing a major role are:

- *The Canadian Health Network* (<http://www.canadian-health-network.ca>), which provides Canadians with easy access to trustworthy information on health promotion, disease prevention, self-care and the performance of the health system;
- *The National Health Surveillance Infostructure* – a series of projects that promote the transfer of and access to health information, using the Internet, to enable health surveillance professionals to do their job more efficiently; and
- *The First Nations Health Information System*, which provides timely access to health information for improved case management, program planning, and health surveillance of First Nations living on reserves.

Health Canada will invest \$80 million through the Canada Health Infostructure Partnerships Program (CHIPP) to support collaborative implementation of innovative applications of modern ICTs in health service delivery across Canada. Priority will be given to telehealth and electronic health records applications. This program will build upon the Health Infostructure Support Program (HISP). Over the past two years, Health Canada, non-governmental groups and major private-sector partners have invested \$22 million in the HISP which consists of 36 ground-breaking projects developed by communities from coast to coast. Hospitals, health centres and other, non-profit organizations are using HISP funds to explore exciting new frontiers.

With regards to health information, the federal government is providing \$95 million over four years for the Health Information Roadmap Initiative. Led by the Canadian Institute for Health Information, in collaboration with Statistics Canada, the initiative will modernize Canada's health information system and will report regularly to Canadians on the state of their health and of their health care system.

Partnerships Can Provide the Solution

Given the complexity of these issues, and the importance of creating a national vision of health care for Canada and a national health information infrastructure, this is not a matter that governments, alone, can resolve. The collective wisdom of all key stakeholders is required: the federal government; the provinces and territories; hospitals and clinics; community health centres and home and community care organizations; laboratories and pharmacies; health care professionals and individuals and their families; community and non-governmental organizations; and all concerned citizens who are willing to participate in developing a shared vision, and to work to achieve that vision.

It is in this capacity that Health Canada and the federal government can help make the CHI a reality: by providing funding through strategic investments; by working with provinces and territories and others to facilitate policy development; by creating awareness; and by promoting a wide range of health initiatives.

Apart from the daunting technical challenge of building the Canada Health Infoway is the critical need for agreement on how to provide safeguards for accessing information, and how to address privacy and confidentiality concerns. Health Canada is placing considerable emphasis on dealing with issues such as security, privacy, system compatibility and standards, which need to be resolved before an effective Canadian Health Infostructure can be put in place.

Health Canada is working closely with provinces and territories to harmonize privacy protection and address the wide variations that currently exist across the country in the area of privacy legislation.

Building cooperation among governments, consulting with the public, seeking the active collaboration of all those involved in health care, and ensuring the participation of non-governmental organizations – these are the main principles of the collaborative approach Health Canada is taking, with its stakeholders, to resolve key issues and concerns relating to the CHI.

Harnessing Technology to Service Human Health

The Canada Health Infoway affords Canada a unique opportunity to build on what is one of the best universal health care systems in the world, and seize the opportunities that health ICTs offer. The CHI will allow us to realize our dream of providing quality care to all Canadians, by placing technology in the service of human health.

By working together and continuing our efforts in this direction we will: realize important economies; be better able to manage our information resources; improve service delivery and quality; achieve faster, better, knowledge-based decisions;

promote the dissemination of reliable, up-to-date health information; and make our health care system more responsive to the needs of all Canadians.

That is why Health Canada remains committed to the principle of investing in technology, in the service of human health, and is pursuing innovative, joint solutions that will result in better information for all health care users, improved access to health care, a more efficient system, and, ultimately, healthier Canadians. ✨

Michel Léger is currently the Acting Director General, Office of Health and the Information Highway (OHIH) at Health Canada. He was Director of the Secretariat for the Minister's Advisory Council on Health Infrastructure. As part of his duties, he is responsible for leading the departmental effort to respond to the recommendations in the Advisory Council's final report, Canada Health Infoway: Paths to Better Health.

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