



# EHRnews@Infoway

A NEWSLETTER FROM CANADA HEALTH INFOWAY

## VOLUME 7 – SPRING 2009

Welcome to the latest issue of EHRnews@Infoway. We hope you enjoy reading about the work Canada Health Infoway is undertaking. If you would like to provide comments or suggestions, please contact us at:

[info@infoway-inforoute.ca](mailto:info@infoway-inforoute.ca)

For further details on the articles in this issue and other news features and events, please visit our website at:

[www.infoway-inforoute.ca](http://www.infoway-inforoute.ca)

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## From the President's Desk

The annual e-Health 2009 conference wrapped up on June 3 in Quebec City. *Infoway* representatives had a strong presence at the conference, and I was pleased to make a presentation looking to the future of *Infoway* and the continued development of electronic health record (EHR) systems across the country. This included my overview of our planned strategies for the Federal Budget 2009 funding allocation of \$500 million for *Infoway*.

The funding has been earmarked to support the goal of ensuring 50 per cent of Canadians have an EHR component by 2010. It has also been designated to help speed up the implementation of electronic medical record (EMR) systems for physicians and integrate points of service for hospitals, pharmacies, community care facilities and patients. Since the announcement at the beginning of February, *Infoway* has been focused on developing the strategies we'll need to fulfill these objectives.

Once we receive the new funding we plan to launch our new Electronic Medical Records (EMR) Program to support Canada's jurisdictions in their deployment of EMR solutions. The program will build on the momentum achieved by the provinces and territories in implementing a standardized electronic health record (EHR) linking critical health information across care-delivery sites within a jurisdiction.

Electronic medical records are practice-based computer applications for gathering such patient information as a problem list, medication list, allergy list, notes, health maintenance information, social/family history and results retrieval (for laboratory, radiology, and other testing results). This information is integrated with scheduling, billing and other practice-management functions (i.e., patient registration, eligibility checking, claims submission, chart and

patient tracking and referral management). Most EMRs include a prescribing tool and may also include computerized ordering, knowledge and decision support systems to enhance the quality, safety, and efficiency of patient care.

The program goal is to place EMRs in the hands of an additional 15,600 community-based physicians and specialists by June 2011, thus increasing the percentage of Canadian physicians with EMRs in their offices to 50 per cent.

As the EMR Program rolls out, more Canadians will start to see progress in the modernization of their health care system through the application of information technology at the point of care. And that is because *Infoway* and its jurisdictional partners are giving Canadian doctors in community-based practices financial assistance to accelerate EMR deployment.

In conjunction with the EMR Program, we have also developed a Clinical Integration Strategy to increase the availability of electronic health record systems that meet pan-Canadian privacy, security, interoperability and functionality standards. The interoperable electronic health record permits information sharing for institution-based providers via hospital clinical information systems and, in the case of community-based physicians, through their electronic medical record systems.

Point-of-service systems are typically found where the patient receives care. This includes information systems in hospitals, physicians' offices, long-term care facilities, clinics, labs, and other sites that capture data when a patient has an interaction with the health system. In most cases these are the existing systems providers are using today.



*Richard C. Alvarez*  
President & CEO,  
Canada Health Infoway

The secure sharing of health information among health care providers and patients is a crucial aspect of health care renewal in Canada. Achieving this goal will enhance the safety, quality and efficiency of Canada's health care system. Consequently, *Infoway* plans to invest directly with health-information technology vendors to help ensure the country's medical professionals have increased access to EHR systems. As well, *Infoway's* investments in both the EMR and Clinical Integration strategies will help to make a significant contribution to Canada's economy, including the creation of hundreds of sustainable, knowledge-based jobs across the country.

# Infoway Program Update Summary

As of the end of the fourth quarter of its 2008-09 fiscal year, *Infoway* had 283 active or completed investment projects. Of these, 182 were jointly developed with the provinces and territories. The other 101 are pan-Canadian projects sponsored by *Infoway*. Projects were underway in all provinces and territories. Here's a look at each program and its progress as of the end of March 2009.

For more information, please visit our website at [www.infoway-inforoute.ca](http://www.infoway-inforoute.ca). View our [EHR Progress map](#).

Q4 project approvals totaled \$55.3 million, bringing life-to-date net investment approvals to \$1,576.2M, or 96 per cent of Infoway's capitalization of \$1,636.8M.

## INFOSTRUCTURE

- 25 pan-Canadian projects: 1 active and 24 completed.

## DIAGNOSTIC IMAGING SYSTEMS

- 30 projects: 15 active, 15 completed.

## REGISTRIES

- 30 projects: 13 active, 17 completed

## DRUG INFORMATION SYSTEMS

- 22 projects: 13 active, 9 completed.
- Three new project phases were approved during the fourth quarter: Ontario Drug Profile Viewer (DPV) Benefits Evaluation Project, New Brunswick Drug Information System Phase 2 and Nova Scotia Drug Information System Phase 2.

## LABORATORY INFORMATION SYSTEMS

- 9 projects: 5 active, 4 completed.

## TELEHEALTH

- 74 projects: 35 active, 39 completed.

## PUBLIC HEALTH SURVEILLANCE

- 115 projects, 11 active, 4 completed.
- New project phase approvals during the quarter: Acquisition of Licensing Rights to Panorama SIT Test Cases Phase 2 and Saskatchewan Public Health Surveillance Phase 2.

## INTEROPERABLE EHR

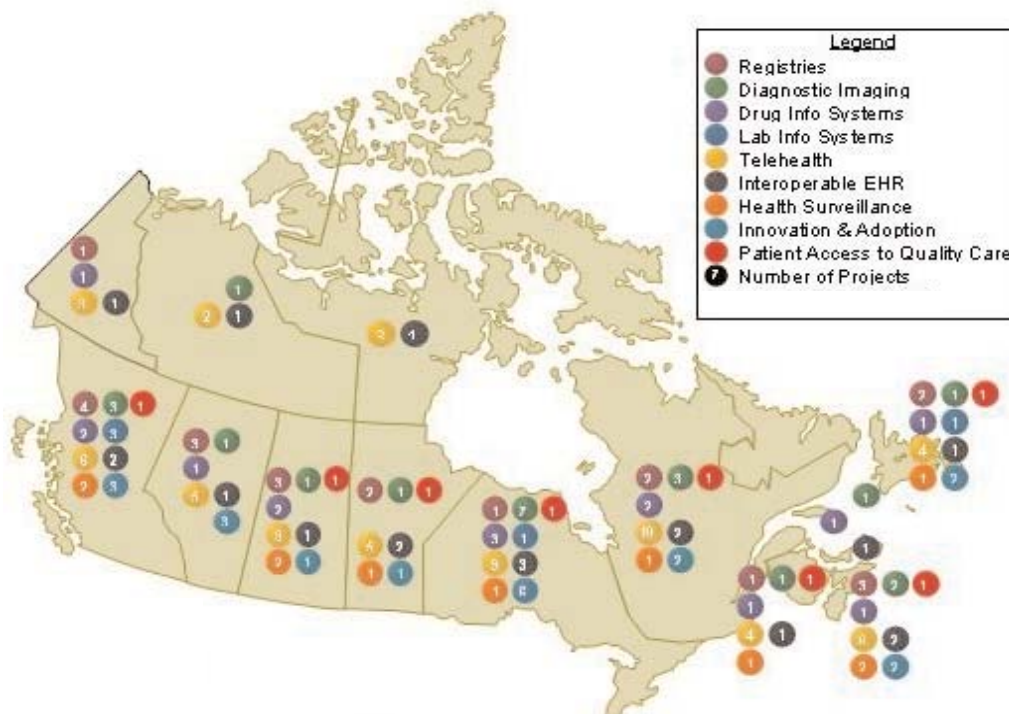
- 30 projects: 18 active, 12 completed.
- Two new project phases were approved during the fourth quarter: iEHR Trans-jurisdictional Data Flow Phase 1 and Manitoba Benefits Evaluation Project Phase 2.

## INNOVATION AND ADOPTION

- 38 projects: 24 active, 14 completed.

## PATIENT ACCESS TO QUALITY CARE (PAQC)

- 10 projects: 10 active, 0 completed.
- Six new project phases were approved during the fourth quarter: Saskatchewan PAQC Phase 1 and 2, Quebec PAQC Phase 1 and 2, British Columbia PAQC Phase 2, Manitoba PAQC Phase 2, Ontario HEALTHeCONNECTIONS PHR Portal for Chronic Disease Management Phase 2 and e-Health Blueprint 2015 Phase 2.



# In Brief

**“As demonstrated in the evaluation findings, *Infoway* is dedicated to achieving its goal of implementation of a public health surveillance system in every jurisdiction, to benefit its residents. These solutions will enhance the health system’s ability to detect, manage and mitigate the damage from adverse public health events.”**  
- Richard C. Alvarez, President and CEO, Canada Health

## **PUBLIC HEALTH SURVEILLANCE PROGRAM MEETING SET OUTCOMES**

Canada Health Infoway (*Infoway*) recently released performance evaluation results of its pan-Canadian Public Health Surveillance (PHS) system investment program. Report findings indicate that *Infoway*, in collaboration with its jurisdictional partners, is meeting set outcomes to achieving a better nationwide system for managing disease outbreaks through the development of the solution commonly referred to as Panorama.

The evaluation concluded:

- *Infoway* has met, or is expected to meet, the majority of the expected outcomes;
- A high level of federal, provincial and territorial collaboration has been achieved throughout various Joint Solution development and Jurisdictional Implementation projects funded under *Infoway*’s PHS investment strategy; and
- While Panorama is expected to make a significant impact on public health management in Canada, the long-term sustainability of the solution will depend on a consistent national approach and ongoing support for maintenance and further development.

Once Panorama’s development is complete, the solution will be available for use by all Canadian jurisdictions. Various jurisdictional implementation projects are anticipated to be completed between 2010 and 2012.

## **RESEARCH AWARD GRANTED TO ESTABLISH CANADIAN E-HEALTH OBSERVATORY**

The Canadian Institutes of Health Research’s Institute of Health Services and Policy Research (CIHR-IHSPR) and Canada Health Infoway (*Infoway*), announced recently that Dr. Francis Lau, University of Victoria, is the recipient of the Applied Health Services and Policy Chair award in e-Health.

The Chair award in e-Health is jointly funded by *Infoway* and CIHR-IHSPR, and represents an exciting new partnership between the organizations. Over the next five years, the \$925,000 award will enable Dr. Lau to focus his research, training and knowledge translation initiatives on the development of an e-Health observatory to monitor the effects of health information system deployment in Canada.



*Dr. Francis Lau*

The CHIR-IHSPR Applied Chairs in Health Services and Policy Research program aims to bridge the existing gap between researchers, decision makers and other knowledge users and to encourage mutual learning through the process of planning, disseminating and facilitating the use of new knowledge in decision-making. The Applied Chair in e-Health aligns with CIHR-IHSPR’s strategic research priority of Health Information as well as with *Infoway*’s vision of a high-quality, sustainable and effective Canadian health care system supported by electronic health record technology.

## *Telehealth is enabling patient self-management in B.C.*

Patients living with congestive heart failure in British Columbia's Interior Health area have been able to use a home-based monitoring system to check their vital signs and help them to better manage their own care. At the same time they can send the data directly to their health care providers.

This technology gives patients a greater role in their health care and timely delivery of hands-on care if and when they need it. That's because the in-home monitoring device enables faster detection of health problems, lets patients self-manage their care, and saves travel time and expense for both patients and their health care providers.

The monitors are placed in patients' homes for up to three months, during which time patients use them to learn how to better manage their disease. Based on a partnership between patient and health care provider, the program gives patients the knowledge they need to manage their disease more confidently, from home, but with the help of the care team.

Patients utilize the system using text and voice prompts and are guided through the collection of vital signs such as blood pressure and heart rate. The resulting data is encrypted and automatically transmitted to the health authority staff, who examine the information and determine if the patient is in need of an immediate intervention, a doctor's office visit, or a home visit.

The Telehomecare program is delivered as part of a larger provincial telehealth strategy that includes Interior Health and Vancouver Island Health Authority (VIHA). VIHA has also used a system for the first time to benefit heart failure patients in the Greater Victoria area. The combined project budget for the two areas is being supported with funding provided by Canada Health Infoway.

Overcoming barriers presented by geography, inadequate transportation infrastructure, and socio-economic disparity, healthcare technology is enabling clinical consultations, continuing health care professional education and health care management in more than 100 British Columbia communities.



### **MANITOBA CLIENT REGISTRY RECEIVES PROJECT OF THE YEAR AWARD**

Manitoba's Provincial Client Registry (CR) project was awarded second place in the Project Management Institute (PMI) 2009 Project of the Year Awards earlier this year. The awards are handed out annually and recognize Manitoba projects that demonstrate a high level of project-management principles.

The CR is a joint effort of Manitoba eHealth and Manitoba Health and Healthy Living, supported by a consortium of

partners including Canada Health Infoway, Sierra Systems, InfoMagnetics Technologies Corporation, and Electronic Data Systems. CR stores and links demographic and selected personal information such as a client's name, address, date of birth and medical record number to identify individuals across health care facilities. This initiative is the first health information system project to involve all 11 Manitoba regional health authorities and CancerCare Manitoba.

## Drug Information Systems: *Already in place in locations across Canada*

The treatment of illness has come a long way since blood-letting was perceived as a cure for what ailed you. Endorsed as recently as the 1920s by no less a medical authority than Canada's esteemed Sir William Osler, blood-letting was thought to relieve strain on the heart. Yet blood-letting is cited as doing more harm than good, causing the death of many an unfortunate patient, allegedly including George Washington.

Nowadays, scientific testing of drugs and rigorous clinical trials assure patients and practitioners alike of the safety of modern, evidence-based medicine. Yet mistakes do happen, especially when patients fail or forget to tell their pharmacists, doctors and other health care providers exactly what medications and alternative therapies they're taking. And that sets the stage for potentially dangerous drug events such as drug interactions.

That's where the Canada Health Infoway (*Infoway*) Drug Information Systems (DIS) Program comes into play. The DIS Program supports pan-Canadian health-information technology projects that will result in authorized health care providers – primarily pharmacists and physicians – being able to manage, share and safeguard patients' medication histories. For each prescription requested, a drug-information system can check for allergy alerts and drug-to-drug interactions against the patient's complete medication profile. And that will help reduce the number of adverse drug reactions by providing the information needed to deliver appropriate, accurate prescribing and dispensing.

Drug Information Systems are already in place in locations across the country.

On the east coast, PEI's interoperable province-wide DIS is up and running, making it the first of type in Canada. Elsewhere in the Atlantic provinces, New Brunswick and Nova Scotia have teams moving quickly toward their provinces' own DIS. As well, the province of Newfoundland and Labrador is in the implementation phase of its core DIS repository, which will set the stage for such technology as a drug viewer and a care-provider web portal.

To ensure the drug claims history of Ontario patients receiving benefits through the province's two drug programs is readily available in hospital emergency departments, the Ministry of Health and Long-Term Care has developed and implemented the Drug Profile Viewer System. This technology helps to fill in some of the missing prescription information if a patient is unconscious or cannot remember the information.

In the Prairies, Manitoba is starting to move forward, having mapped most of its existing system requirements. And Saskatchewan undertook a significant project converting the Alberta Pharmacy Information Network (PIN) messaging to pan-Canadian specifications. The province's PIN medication profile viewer is in place for all community-dispensed drugs and is deployed not only in all Saskatchewan pharmacies but also in hospital emergency rooms and in 30 physician clinics around the province.

In the west, Alberta has a full DIS in place with dispensing for community pharmacies using the Pharmacy Information Network, and access to patient drug profiles available on hospital and physician office viewers.



In British Columbia, Pharmanet captures every prescription dispensed in BC pharmacies and provides alerts to pharmacists, hospital ERs and some doctors. It handles some 47 million prescriptions and identifies some 2.5 million significant drug interactions a year.

The progress of the Drug Information Systems in Canada results from the partnerships forged by *Infoway* with the provinces and territories. For more information about *Infoway* and the DIS Program visit [www.infoway-inforoute.ca](http://www.infoway-inforoute.ca).

### **Standards-based solutions in PEI: Watch the video on our website**

Standards-based systems are working in PEI to connect hospitals, pharmacies and doctors to enable the sharing of drug information. PEI is the first in the country to implement a province-wide Drug Information System (DIS), using [pan-Canadian DIS standards](#).

Learn about their recent experiences from developers, and the benefits of implementing a DIS in a new video, [Adopting pan-Canadian Standards: PEI's experience](#).

For more information contact the Standards Collaborative InfoDesk at [standards@infoway-inforoute.ca](mailto:standards@infoway-inforoute.ca).

# Clinicians' Corner

## *Fostering collaboration to promote electronic medical records (EMRs)*

A recently completed study on electronic medical records (EMRs), sponsored by Canada Health Infoway (*Infoway*), was conducted by the Canadian Medical Association (CMA) under the direction of principal investigator Dr. Nicola Shaw of the University of Alberta.

The aim of this initiative, the first of its kind in Canada, was to provide physicians with practical information on best practices for EMR implementation as well as provide lessons learned from peers on the implementation and use of EMR systems in ambulatory clinical practice settings.

The study incorporated survey questions and assessments of 20 physician offices from a wide cross-section of practices such as large urban, small rural, small collaborative, large multidisciplinary, Native Health Services, large urban family medicine groups. The offices studied varied in terms of specialty, geographic location, interdisciplinary team and technological know how.

The studies provided “real-life” accounts by physicians, describing the opportunities and challenges experienced, the steps taken to maximize opportunities and ways of overcoming challenges.

While physicians’ offices from across the country were studied, there were common challenges and benefits. From

the 20 case studies, four common challenges emerged:

1. Technology: how to avoid system crashes, how to fix system “glitches”, the need for timely system support (especially post-implementation);
2. Training: there was a definite desire to have follow-up training once a system was implemented, or to provide refresher training;
3. Project planning: there was a definite need for a pre-implementation plan. A comprehensive plan that would lay out each employee’s function as they made the transition from a manual to an automated system. The plan should capture the office workflow and the variations due to an automated system;
4. Connectivity challenges: The inability to connect to other key sources of patient health information from other points of care; interoperability was also a challenge.

Some of the immediate benefits were:

1. Improved office efficiencies and workflows;
2. Improved communications between office staff and patients;



*Maureen Charlebois  
Chief Nursing Executive and Group  
Director, Clinical Adoption  
Canada Health Infoway*

3. Faster and easier access to patient information;
4. Staff-skill optimization: e.g. clinicians spend more time with patients and less time searching or waiting for files and/or attending to administrative functions;
5. Office space optimization. There is no longer a need to store walls of paper files;
6. Ease of billing.

The benefits are numerous and ultimately patient care will be positively affected. The entire CMA case study report can be found on the CMA website at [www.cma.ca](http://www.cma.ca)

## WEB PAGES FOR CLINICIANS

Health care professionals looking for more information about working with electronic health records can consult the [Adopting EHR](#) section of *Infoway's* website. Specific web pages are dedicated to information for physicians, nurses, pharmacists and allied health care providers.



