



Newfoundland & Labrador

**Centre for
Health Information**

Centre for Health Information 2011-2014 Business Plan

Date: June 27, 2011

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Message from the Chair

June 27, 2011

The Honourable Jerome Kennedy
Minister of Health and Community Services
Government of Newfoundland and Labrador
P.O. Box 8700 Confederation Building
St. John's, NL A1B 4J6

Dear Minister Kennedy:

On behalf of the Newfoundland and Labrador Centre for Health Information's Board of Directors, I am pleased to submit the Centre's 2011-2014 Business Plan in accordance with the requirements set out by the *Transparency and Accountability Act*.

The Board is pleased to present a Business Plan that both reaffirms the Centre's vision of *improved health through quality health information* and supports the strategic directions defined by the Provincial Government. The many facets of the Centre's work contribute to each of the Government's strategic directions with the Business Plan focusing on contributions in the area of accountability and stability of health and community services. Within its available resources, the Centre will concentrate on initiatives in health research, information management and technology, and quality and safety.

As a Category 2 entity under the *Transparency and Accountability Act*, the Centre's Board of Directors acknowledges accountability in preparing this plan and achieving the specific goals and objectives outlined within. The Board looks forward to reporting to you annually on its success.

Sincerely,



Bill Fanning
Chair, Board of Directors

Overview

The Newfoundland and Labrador Centre for Health Information (the Centre) provides quality information to health professionals, the public, researchers and health system decision-makers. Through collaboration with the health system, the Centre supports the development of data and technical standards, maintains key health databases, prepares and distributes health reports and supports and carries out applied health research and benefits evaluations. The Centre's mandate also includes the development of a confidential and secure provincial electronic health record (EHR), including the change management required to support adoption by end user clinicians. In addition to the EHR, the Centre also manages the planning, design and implementation of specific provincial health information systems.

In collaboration with its key stakeholders, including the Government of Newfoundland and Labrador Department of Health and Community Services and Canada Health Infoway, the Centre has positioned the province on the national forefront of EHR development. Among the many accomplishments illustrating the Centre's leadership in eHealth to date are:

- Newfoundland and Labrador was the first province in Canada to implement a Client Registry, a foundational block of the future interoperable EHR that provides a province-wide patient index.
- The provincial Client Registry has been recognized as *the* national Client Registry model.
- Newfoundland and Labrador was one of only two provinces paving the path to implementing a province-wide Picture Archiving and Communications Systems (PACS). As of 2009, more than 99 per cent of images created in the province are digital.
- Telehealth has evolved from a research interest at Memorial University to a fundamental part of provincial health care delivery with thousands of patient visits occurring by distance annually.
- The Pharmacy Network is currently being deployed in community pharmacies province-wide and will become the first drug information system in Canada to conform to the pan-Canadian blueprint for the EHR.
- The province is positioned to be among the first provinces in Canada to achieve the goal of establishing an interoperable EHR.

In addition to supporting the health information needs of its stakeholders, the Centre provides a return on Government's investment by attracting external funding for health information technology products and applied health research. The Centre is building capacity for EHR development among the local technology industry and applied health research skills in young health researchers. Ultimately, the Centre is an innovative health agency creating new jobs, bringing new money into the province and adding to the growth of Newfoundland and Labrador's private sector.

In its most recent fiscal year, 2009-2010, the Centre saw revenues of \$20.3 million of which 65 per cent was a provincial operating grant. Other sources of revenue for the organization included funded research and capital funding from the Government of Newfoundland and Labrador and Canada Health Infoway for developing the provincial EHR.

Established in 1996 following the recommendation of the Health System Information Task Force (1995), the Centre became a statutory corporation under the *Centre for Health Information Act* in 2007. The Centre is governed by a Board of Directors reporting to the Minister of Health and Community Services and is managed by a President/Chief Executive Officer. The Centre is structured into five departments: Health Information Network; Research & Evaluation; Clinical

Information Programs and Quality; Business Services and Finance; and Human Resources and Strategic Planning. The Centre currently employs 140 employees, the majority of which are based in the Centre's head office at 70 O'Leary Avenue in St. John's and the remainder at its Registry Integrity Unit in Bay Roberts. Additional information about the organization and its activities can be found on the Centre's website www.nlchi.nl.ca.

Mandate

The mandate of the Centre is stated in its enabling legislation and a Memorandum of Understanding with the Department of Health and Community Services.

In accordance with the *Centre for Health Information Act*, Section 4, Subsection 1, the object of the Centre is to:

Assist individuals, communities, health service providers and policy makers at federal, provincial and regional levels in making informed decisions to enhance the health and well-being of persons in the province by providing a comprehensive province-wide information system that:

- a. Protects the confidentiality and security of personal information that is collected, used, disclosed, stored or disposed of by the Centre;
- b. Provides accurate and current information to users of the health and community services system;
- c. Integrates data from all components of the health and community services system;
- d. Is efficient and cost-effective; and
- e. Is flexible and responsive to the changing requirements of users of the system.

The complete *Centre for Health Information Act* is available online at:

www.assembly.nl.ca/legislation/sr/statutes/c05-1.htm

The Centre is enabled to meet its mandate through the Memorandum of Understanding set out in June 2002. The *Working Together...For Better Health Information – A Memorandum of Understanding between the Department of Health and Community Services and the Newfoundland and Labrador Centre for Health Information* states that:

- The Memorandum of Understanding is intended to promote effective and efficient working relationships between the Department of Health and Community Services and the Centre.
- The Memorandum assigns primary and shared responsibility to the Centre for several databases of personal information.
- The Centre is granted full authority on behalf of the province to access databases held by the Department of Health and Community Services and the Centre for purposes of research and report production.
- Reports will be provincial in scope with regional reports done as required.
- The Centre will assist stakeholders, through its consultation services, to utilize and generate reports using data held by stakeholders.
- The Privacy, Confidentiality and Access Principles and Guidelines for the Health Information Network, federal and provincial legislation, policy and standards will govern all data access, use and release from these databases.
- Public and private partnerships are endorsed to support common goals.
- The Centre is responsible for providing provincial coordination and leadership regarding technical and data standards for health information systems, working closely with all stakeholders and partners.
- The Centre will collaborate closely with the Department of Health and Community Services to protect the privacy of personal information.

Lines of Business

The Centre's lines of business are the sets of programs and services it provides to provincial and federal governments and their agencies, community organizations, health professionals, researchers and the public. As an integral part of the provincial health system, the Centre's lines of business support improvements in the collection of data and use of information for individual care, administration, planning and research. The Centre has three primary lines of business:

1. Provincial Health Information Systems
2. Quality Information
3. Research

Provincial Health Information Systems

The Centre was established to provide a comprehensive province-wide information system for the health sector. Activities for the development of this information system are either led by the Centre or by other organizations within the health system with whom the Centre collaborates. The Centre is responsible for:

- Planning, designing, implementing and maintaining the provincial EHR and the Health Information Network.
- Collaborating with its clients to ensure the desired outcomes of the comprehensive province-wide information system are achieved.
- Managing the privacy and security of personal information transmitted to, or via, the Health Information Network.
- Coordinating provincial participation in national standard setting activities for the EHR.
- Managing the planning, design and implementation of specific provincial health information systems.

Quality Information

Good decisions require good data. Data quality is critical to attaining the Centre's vision, *improved health through quality health information*. Recognizing the connection between quality health information and healthier people and communities led to the establishment of the Centre in 1996. Since then, the Centre has collaborated with the provincial health system to ensure quality health information is available for system-wide planning, research and policy development.

The need and expectations for high quality data have risen as the scope and magnitude of decisions made about and within the health system has increased at the national, provincial and regional levels. The Centre responds to this need through its role as custodian of many health information systems on behalf of the province, including provincial EHR systems, being a leader in standards development and implementation and the active pursuit of optimal quality of the data contained within the systems for which the Centre is responsible.

Quality health information is information that is accurate, timely, useable, relevant and comparable. To achieve the optimal level of quality for the information used and provided by the Centre to the health system, quality initiatives of various types are undertaken throughout the Centre. The following summarizes work undertaken by the Centre to ensure quality information is provided to its stakeholders:

Custodian of Health Information Systems

- Creating datasets from various sources of information for use by the Centre and the health system.
- Receiving and using data sets from other organizations.
- Operating provincial health information systems, including the provincial EHR systems.
- Providing a secure environment to house health information systems and use the data with the highest regard for privacy.

Standards Development and Implementation

- Developing financial, statistical, social, demographic and clinical data standards for the health sector in collaboration with stakeholders; thereby ensuring that data collected is uniform in definition, measurement, collection and interpretation.
- Participating in national and provincial health information standards committees and initiatives; customizing standards where necessary for provincial application, thereby adding value for the Newfoundland and Labrador health environment.
- Participating in the development of technical, messaging and data standards for EHR systems; supporting implementation of such standards in support of interoperability.
- Supporting implementation of health information standards through education and consultative services.

Data Quality Initiatives

- Developing and adopting a corporate Data Quality Framework that fosters a corporate culture for quality, guides daily quality assurance activities, provides periodic evaluation of data quality and reports results to internal and external stakeholders.
- Conducting various types of audits to identify data standards and quality issues and develop an action plan to address the matter. The solution may require revision to existing standards or development of new standards to fully resolve the issue.
- Providing education and training for data collectors and users to ensure data is accurately recorded and processed, and is used and interpreted appropriately.
- Publishing health information standards reference materials for use by stakeholders
- Supporting and participating in the data quality initiatives of other organizations, such as the Canadian Institute for Health Information, that complement and enhance provincial quality initiatives.

Research

The Centre engages in applied health research, which is the study into the health of populations to identify health outcomes and risk factors for disease, as well as areas related to access, use, costs, safety, quality, delivery and organization of health systems. Applied health research also includes the evaluation of information systems and government policy/programs. The Centre uses administrative data, surveys, focus groups and key informant interviews in carrying out this work. The Centre also supports the Department of Health and Community Services, Regional Health Authorities, researchers and others with their information and research needs by providing data extraction, data linkage, data management and information and analytical services. The Centre collaborates with Memorial University and other research organizations within and outside the province.

Values

The following values guide the Board of Directors and the staff of the Centre in their actions:

Empowerment: Each person is empowered within their knowledge and skills to contribute to the goals of the Centre.

Accountability: Each person is accountable for their actions to achieve the goals of the Centre.

Respect: Each person provides opportunities to others to express their opinions in an open and supportive environment.

Collaboration: Each person engages in a positive way with others in conducting the work of the Centre.

Flexibility: Each person is open to the suggestions of others and recognizes the different perspectives of board members, staff, clients and stakeholders.

Privacy: Each person ensures all actions provide the greatest protection for personal information under the custodianship or management of the Centre.

Transparency: Each person is open about the actions taken in the work of the Centre and the decision-making process in support of these actions.

Excellence: Each person uses his or her knowledge and skills to strive for the best outcome in the actions taken in their work for the Centre.

Primary Clients/Stakeholders

The Centre's primary clients, or stakeholders, that have a direct claim on the Centre's attention, resources or services, include the Department of Health and Community Services and the Regional Health Authorities. The Centre works with these stakeholders and provides quality health information to help them meet their information needs. The Centre also provides ongoing support to these stakeholders through the development and management of provincial health information systems.

There are several additional stakeholder groups that have a vested interest in the outcomes of the Centre. These organizations include Canada Health Infoway, Canadian Institute for Health Information, Memorial University, Health Canada, Statistics Canada and the regulated health professions. Individuals and specific groups within the public also avail of the Centre's services and will benefit from its outcomes, although usually indirectly.

The Centre has established and maintains collaborative relationships with its primary stakeholders. Whether developing and implementing provincial health information systems including the provincial EHR, conducting research and evaluation, engaging in data quality and standards initiatives or striving to protect the information in its possession, partnerships are essential to the Centre's ability to meet its mandate and achieve its success.

Vision

Improved Health Through Quality Health Information

Mission

The Centre is responsible for the development of a confidential and secure Health Information Network which will serve as the foundation for the provincial Electronic Health Record (EHR). Through the support of the Provincial Government and Canada Health Infoway, the Centre has been recognized for its contribution to the national agenda for development of the Electronic Health Record. The Centre is also responsible for the appropriate use of quality health data to support improvements in the health system. The Centre's mission contributes to Government's strategic directions. Specifically the development of the EHR contributes to the improvement of accountability and stability in the delivery of health and community services.

By March 31, 2017, the Centre will have planned and implemented provincial health information systems, including priority elements of the electronic health record, and provided quality health information that contributes to improved population health in Newfoundland and Labrador.

Measure	Planned and implemented provincial health information systems, including priority elements of the electronic health record.
Indicators	<ul style="list-style-type: none"> • Implemented the provincial Pharmacy Network. • Implemented the funded components of a provincial Laboratory Information System. • Incorporated the necessary functionality in the Health Information Access Layer. • Expanded use of the electronic medical records (EMRs) by physicians. • Assessed opportunities for expansion of Telehealth services. • Supported provincial and Regional Health Authority committees. • Promoted the role of the Centre for Health Information. • Continued to apply best practices in information protection and privacy.
Measure	Provided quality health information.
Indicators	<ul style="list-style-type: none"> • Evaluated the quality of health information databases to attain continuous improvement in the quality of data. • Undertook health research projects. • Supported stakeholder information needs through research and evaluation services. • Developed a corporate information management program.

Goals & Objectives

The Centre's Board of Directors has identified five key areas the organization will focus on in the next three years that support the strategic directions of the Provincial Government. From these issues, corresponding goals and objectives have been established to define the direction and outcomes the Centre is seeking to address. The indicators associated with these goals and objectives allow the Centre to regularly ensure it is progressing forward.

Provincial health information systems are an essential tool for supporting and improving accountability in the health system through improved quality health information available for healthcare, system and program planning, and health research. The Centre's work in developing provincial health systems contributes to Government's strategic direction of accountability and stability in delivery of health and community services.

Issue 1: Provincial Health Information Systems

Goal 2011-2014	By March 31, 2014, the Centre will have initiated implementation of priority elements of provincial health information systems.
Measure 2011-2014	Initiated implementation of priority elements of provincial health information systems.
Indicators 2011-2014	<ul style="list-style-type: none"> • Implemented priority elements of the approved provincial EHR strategic plan. • Managed the development, integration and operation of EHR components. • Supported development and management of other provincial health information systems.

Year One Objective	Year One Measure	Year One Indicators
By March 2012, the Centre will have initiated implementation of an EHR strategic plan and supported other provincial health information systems, with emphasis on priority elements of the provincial EHR.	<ul style="list-style-type: none"> • Initiated implementation of approved aspects of an EHR strategic plan. • Supported other provincial health information systems. 	<ul style="list-style-type: none"> • Continued implementation of the Pharmacy Network in community pharmacies province-wide. • Implemented the provincial Client Safety Reporting System (CSRS) pilot • Supported initial regional implementations of CSRS. • Developed plan for implementation of a physician office system program. • Encouraged end user adoption of EHR and other

		provincial health information systems. <ul style="list-style-type: none"> • Completed approved elements of iEHR/Labs project. • Implemented tele-ophthalmology pilot project in Burin. • Completed Phase I planning for the Multijurisdictional Telepathology (MJT) project.
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Year Two Objective	Year Three Objective
By March 2013, the Centre will have continued implementation of priority elements of the provincial EHR.	By March 2014, the Centre will have implemented funded components of the provincial EHR and other provincial health information systems.

Issue 2: Quality Data

As the Centre becomes the custodian of more databases of personal health information, and that information is used to support evidence-based decision-making, its role in assessing data quality becomes more important. Data quality is critical to the attainment of the Centre's vision and supports Government's strategic direction of improved population health.

A Data Quality Framework (DQF) was developed in 2009 to foster a culture of quality and identify processes to support quality information. It will evolve over time as it is applied to various types of databases. The DQF provides an integrated approach to defining, measuring and improving the quality of the data contained within the databases managed by the Centre.

Goal 2011-2014	By March 31, 2014, the Centre will have provided quality data from the key databases of which it is the custodian.
Measures 2011-2014	Provided quality data from key databases.
Indicators 2011-2014	<ul style="list-style-type: none"> • Implemented the DQF for selected databases. • Assessed the quality of data within those databases. • Improved data quality and documentation for health information databases.

Year One Objective	Year One Measure	Year One Indicators
By March 2012, the Centre will have applied the DQF to assess the data quality of selected databases.	Applied the DQF to assess the data quality	<ul style="list-style-type: none"> • Identified databases which the DQF will be applied. • Documented opportunities for improvement based on data quality assessments. • Developed data quality documentation for selected databases.
Year Two Objective	Year Three Objective	
By March 2013, the Centre will have adapted the DQF for use with other EHR component systems and associated databases.	By March 2014, the Centre will have evaluated the effectiveness of DQF implementation.	

Issue 3: Research and Evaluation

The Centre plays an increasingly important role in applied health research and evaluation which contributes to evidenced-based planning in the health system. The Centre needs to continue that role particularly in light of new data available from the Electronic Health Record. Providing health professionals with quality health information to support decision-making contributes to Government's strategic direction of improved population health.

Towards increasing collaboration between the Centre and the Department of Health and Community Services, the Evidence to Policy Liaison Committee was formed in 2009 and is co-chaired by both the Centre and the Department. The mandate of this committee is to facilitate the use of information, research and evaluation to support provincial policy and program development and implementation.

Goal 2011-2014	By March 31, 2014, the Centre will have provided information through research and evaluation services to support health policy and improved population health.
Measures 2011-2014	Provided information, research and evaluation services.
Indicators 2011-2014	<ul style="list-style-type: none"> • Supported the Centre and stakeholder's information needs through applied health research, evaluation and information services. • Supported the Department of Health and Community Services by providing information for the development of evidence-based policy. • Engaged in a collaborative model for health research.

Year One Objective	Year One Measure	Year One Indicators
By March 2012, the Centre will have assessed opportunities for collaborative research.	Assessed opportunities for collaborative research.	<ul style="list-style-type: none"> • Developed communications material to promote collaborative research opportunities. • Presented at conferences and to relevant stakeholder groups. • Continued participation in the Research and Evaluation, Department of Health and Community Services Evidence-to-Policy Liaison Committee.

Year Two Objective

By March 2013, the Centre will have engaged in collaborative research and evaluation with stakeholders.

Year Three Objective

By March 2014, the Centre will have increased information assets in support of improved population health in Newfoundland and Labrador.

Issue 4: Stakeholder Engagement

The Centre provides significant health, economic, and financial benefits to the province, and support to health professionals, which the Centre needs to communicate to its clients and stakeholders. The Centre's accountability to the public includes making reasonable efforts to increase stakeholder engagement and awareness of the value of its work. The Centre will build on past stakeholder surveys to foster public awareness about the important role the Centre plays in providing quality health information.

Goal 2011-2014	By March 31, 2014, the Centre will raise stakeholder awareness of its role in improving population health through the provision of quality health information.
Measure 2011-2014	Increased stakeholder awareness as a provider of quality health information.
Indicators 2011-2014	<ul style="list-style-type: none"> • Increased stakeholder understanding of the role of the Centre. • Fostered collaborative approach with stakeholders for development, integration and ongoing operation of provincial EHR and other health information systems.

Year One Objective	Year One Measure	Year One Indicators
By March 2012, the Centre will have developed an approach to increase stakeholder awareness of the role of the Centre.	Developed an approach.	<ul style="list-style-type: none"> • Conducted stakeholder surveys. • Developed strategies to increase stakeholder engagement. • Engaged in proactive communications.
Year Two Objective	Year Three Objective	
By March 2013, the Centre will have implemented strategies that collaboratively engage stakeholders and raise understanding of the Centre.	By March 2014, the Centre will have demonstrated effectiveness of strategies to raise stakeholder understanding of and collaboration with the Centre.	

Appendix A: Strategic Directions

These strategic directions have been set out by the Provincial Government and will be considered by the Department of Health and Community Services and other Government entities that report to Government. While the work of the Centre will contribute to each strategic direction in some way, the Centre's 2011-2014 Business Plan focuses on its contributions in the area of accountability and stability of health and community services.

Government's Strategic Direction	Focus Area of the Strategic Direction 2011-2014	This direction is/was addressed in the:		
		Business Plan	Operational Plan	Work plan of a branch/division
Population Health	Aboriginal Health		X	
	Cancer Care		X	
	Chronic Disease Management		X	
	Healthy Aging		X	
	Injury Prevention		X	
	Maternal/Newborn Health		X	
	Smoking Rates And Protection from Environmental Smoke		X	

Government's Strategic Direction	Focus Area of the Strategic Direction 2011-2014	This direction is/was addressed in the:		
		Business Plan	Operational Plan	Work plan of a branch/division
Accountability and stability of health and community services	Clinical / Administrative Guidelines / Program Standards	X		
	Evaluation of Legislation, Programs and Services	X		
	Health Research	X		
	Information Management and Technology	X		
	Performance Measurement/ Monitoring	X		
	Quality and Safety	X		



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