

# Building a Strong Foundation:

## Improving Primary Health Care Delivery in Canada

Enhanced patient safety. Improved access to care.  
Better chronic disease management.

These are some of the benefits being realized by adopters of electronic medical records (EMRs). By using the client health information that they have captured in EMRs, these adopters are positively influencing continuity of care, fostering collaboration among health care providers, increasing quality of care and strengthening the performance of the health care system.

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## Taking Advantage of the Opportunity

Across Canada, more and more primary care providers such as family physicians are capturing client data electronically at the point of care using EMRs. A recent study indicates that the proportion of physicians using EMRs in Canada grew from 37% in 2009 to 56% in 2012.<sup>i</sup>

An EMR is a computer-based medical record for a specific client of a specific clinician, practice or organization. Each record contains information such as demographics, medical and drug history, and laboratory results. This comprehensive information helps clinicians make informed decisions about delivering care.

To ensure that the Canada-wide effort to implement EMRs yields the desired benefits, it is essential that EMR data be available in a standardized format. The availability of standardized data enhances the functionality of the EMR by

- Making the data comparable and allowing clinicians to share client data across interdisciplinary teams (including physicians, specialists and other care providers), which supports collaborative care;
- Allowing easy access to client information, which enhances the ability to monitor and inform safe client care; and
- Supporting the prevention and management of chronic conditions and clinical decision-making at the point of care, which leads to better engagement and health outcomes for clients.

### About the Primary Health Care Electronic Medical Record Content Standard

In collaboration with stakeholders from across the country, the Canadian Institute for Health Information (CIHI) developed the *Pan-Canadian Primary Health Care Electronic Medical Record Content Standard*. The content standard describes key concepts that explain a subset of important data elements in EMRs.

To take advantage of these benefits, many jurisdictions are planning to include aspects of the *Pan-Canadian Primary Health Care Electronic Medical Record Content Standard* in their EMRs.

The following success stories illustrate the many benefits of using medical information that has been captured electronically.

i. The Commonwealth Fund. *Commonwealth Fund International Health Policy Survey of Primary Care Physicians*. New York, US: The Commonwealth Fund; 2009 and 2012.

# Innovative Practices for Better Health in Ontario

## Data improves medication management

Warfarin is often prescribed to prevent blood clots. However, it frequently interacts with other commonly used medications, causing excessive bleeding. To ensure that patients take an adequate yet safe dose, health care providers need to monitor warfarin use with regular blood testing. Staff at the Summerville Family Health Team use EMR data to proactively monitor how frequently clients on warfarin have their blood tested. They use EMR data to identify clients

at risk and provide education and follow-up care. As a result of this simple initiative, 90% of the clinic's warfarin clients now adhere to the blood test schedule, thereby minimizing the risks associated with their medication.

“At Summerville Family Health Team, we rely on data extracted from our electronic medical records to plan, execute, analyze and improve. With the application of the EMR content standards, our ability to compare our performance with regional, provincial and national benchmarks will be realized.”



—Dr. David Daien,  
Summerville Family  
Health Team

## Data promotes interprofessional collaboration

In 2012, clients with diabetes at the Algoma Diabetes and Education Care Program in Northern Ontario had an overall score of 65% for “good health outcomes in diabetes”—the most recent national average was 38%.<sup>ii</sup> Higher scores signify better management of associated diabetes risks and complications. The main reason for the Algoma program's impressive success? Members of the interdisciplinary team were connected to updated client assessments and care plans and used EMRs for informed decision-making. The result is a truly collaborative approach to providing quality care for clients with diabetes.

ii. Canadian Institute for Health Information. *A Framework for Health Outcomes Analysis: Diabetes and Depression Case Studies*. Ottawa, ON: CIHI; 2008.

# An Organized Approach for Evidence- Based Care

## Building analytical capacity to support quality care

With the goal of improving access to quality care, primary care physicians and Alberta Health Services jointly established regional primary care networks across Alberta. To support this goal, Chinook Primary Care Network is working with its stakeholders to develop, implement and evaluate primary care delivery models and programs.

One such program promotes proactive chronic disease management across network clinics. As part of this program, the Chinook Primary Care Network and its clinics came together to establish key indicators in chronic disease prevention and management (such as rates of breast cancer screening and blood pressure monitoring). Each clinic uses these indicators to periodically screen its high-risk clients, capturing the results in EMRs. The standardized nature of the EMR data allows the network to collate data from all the clinics and generate comparative reports to assess screening frequency across

clinics, evaluate benchmarks and identify clinics with low screening rates. When this information is shared across all clinics, it provides them with an opportunity to evaluate how they deliver care, as well as to review and learn from the best practices of their peers.

“The evaluation and feedback process for clinical indicators in the Chinook Primary Care Network has been extremely valuable for learning what processes are working within a clinic and illustrating areas in need of quality improvement.”



—Charles Cook, PhD,  
Director, Evaluation,  
Chinook Primary  
Care Network

By collating EMR data and then disseminating comparative analyses to the clinics, the network supports informed decision-making for the provision of quality care and increased satisfaction for both clients and providers. The example from the Associate Clinic in Pincher Creek on the next page illustrates the success of this program.



# Improving Chronic Disease Management in Alberta

## Data helps boost screening rates

The Associate Clinic in Pincher Creek, Alberta, uses the comparative reports developed by the Chinook Primary Care Network to enhance and implement best practices for better chronic disease prevention and management for its clients.

### Improvement in Cancer Screening Rates Since 2010

- Breast cancer: from 66% to 96%
- Cervical cancer: from 72% to 98%
- Colorectal cancer: from 45% to 60%

Once the clinic has detected a low rate for a screening indicator, it drills down into the information and identifies clients who have not received the recommended screening. One of the strategies implemented to boost screening rates is having interdisciplinary

teams of care providers proactively reach out to such clients. The team focuses on explaining the health risks associated with the clients' conditions and emphasizes the importance of screening to help avoid these risks.

The improvement in the clinic's screening rates (see box) clearly demonstrates the success of this collaborative effort. Clients and staff are very pleased with the evidence-based approach to chronic disease prevention and management.



# A Unique First Nations Initiative in Nova Scotia

## Data helps understand health care needs in First Nations communities

The limited availability of health surveillance data for First Nations across Canada affects the ability of communities, health agencies and governments to respond effectively to the health needs of this population. To address this gap, a unique collaborative of First Nations in Cape Breton, Nova Scotia, known as the Tui'kn Partnership successfully brought together the provincial and federal governments

and various universities to create the tools, technical solutions, policies and procedures that would become the Unama'ki Client Linkage Registry.

“Through the development of this linkage registry and data-sharing agreement with the province, we have access to critical information about the health of our people. We are better able to measure health outcomes and trends in our communities.”



—Sharon Paul Rudderham,  
Health Director,  
Eskasoni First Nation

The partnership created the registry by integrating information from various provincial and federal First Nations data sources with EMR demographic data. As a result of this initiative, health information for the First Nations population in Cape Breton, such as morbidity, birth rates and health conditions, can now be evaluated. Planners have a better understanding of health trends and needs and are able to develop community health plans based on evidence. In the longer term, this effort will inform public policies and funding for programs that address health inequalities, resulting in improved health outcomes for First Nations communities.



## Who Benefits, and How

Many people benefit from accessible, standardized, electronic point-of-care data in primary care:

### Clients and Families

- It leads to better client outcomes by supporting health care providers to offer safe, client-centred, customized care and by enabling improved access to appropriate services.
- When health care providers have the ability to retrieve historical information, it saves time for both clients and providers. This also enhances the confidence of clients, who know that their providers have all the relevant information they need to provide optimal care.

### Clinicians and Other Primary Care Providers

- It gives health care providers comprehensive client information, leading to appropriate, timely and coordinated decision-making.
- It provides the capacity to quickly respond to emerging clinical issues and concerns (such as drug recalls) and enhances client safety. It also enables comparative monitoring and evaluation of care plans for similar clients and promotes quality improvements and practice efficiencies.

### System Managers and Policy-Makers

- Population health information that emerges from this data provides a better understanding of evolving population needs and helps system managers fund appropriate services and programs to better meet the needs of the population.
- It provides the ability to monitor and analyze primary care delivery and administration to identify areas where quality, outcomes, safety and efficiency can be improved and to ensure that clients have optimal access to care.

## The Way Forward

When primary care providers have ready access to comparable health information for informed decision-making, the quality of care improves. While electronically capturing medical information enables access, there is a growing need to ensure the availability of standardized data within primary care EMRs. Standardized data enables analysis to determine trends, evaluate the impact of health initiatives and support health system planning for better health outcomes.

As more and more clinics integrate EMRs into their practice, wider adoption of the *Pan-Canadian Primary Health Care Electronic Medical Record Content Standard* becomes necessary. Adopting the content standard will contribute to infrastructure that will simplify the movement of knowledge and people across jurisdictions.

The appropriate use of high-quality information on health needs, services and outcomes is critical to the future of Canada's health system. Clinicians need information to support their care planning decisions. Health system managers need information for planning and quality improvement. Policy-makers need information for system management and accountability. This product is one in a series designed to showcase the use and value of information at these various levels.

## About the Canadian Institute for Health Information

CIHI is an independent not-for-profit organization that provides essential information on Canada's health system and the health of Canadians. Among other things, CIHI provides support for the collection, aggregation and use of primary health care data in Canada.

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