Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard, Version 2.0 (PHC EMR CS) Frequently Asked Questions

Background and History

What is primary health care?

Primary health care (PHC) has been called the foundation of Canada’s health system and is the most common type of health care that Canadians experience. For most people, PHC is the first point of contact with the health care system, often through a family physician. PHC is where short-term health issues are resolved, where the majority of chronic health conditions are managed, where health promotion and education efforts are undertaken and where patients in need of more specialized services are connected with care. Dietitians, nurses, occupational therapists, physiotherapists, pharmacists, psychologists, social workers and other health care providers also deliver PHC services, as PHC is often provided by interdisciplinary teams. Additionally, patients play a key role in maintaining their health between PHC visits.

What are electronic medical records?

Electronic medical records (EMRs) are computerized systems that enable clinicians, including community-based physicians and other PHC providers to store, retrieve and manipulate patient encounter information electronically. Advancing the adoption of EMRs that use pan-Canadian standards to exchange information with other points of care is essential to achieving the health care benefits of the e-health investments being made across the country.
What is a PHC EMR content standard?

A PHC EMR content standard is a specification of key concepts and value sets that describe a subset of important data elements in EMRs. For PHC, this means that important data content, such as data on health conditions, risk factors and procedures, can be collected in the PHC clinic’s EMR in a standardized way so that essential data is available to support clinical care and health system management.

What are the benefits of an EMR content standard in PHC?

All across Canada, EMRs are being enhanced to collect essential information in PHC settings, but the data collected in EMRs is often not standardized or comparable. This limits the extent to which EMRs can provide value to PHC providers, such as safety reminders and quality feedback reports that can help support better prevention and management of chronic diseases at the patient and practice levels.

The pan-Canadian adoption of the PHC EMR Content Standard (CS) will result in more complete and comparable PHC data for priority data elements. This data can then be available and used to understand and support improved access, safety, quality and outcomes for patients. Standardized data is required to support patient care through better decision supports such as reminders and alerts, particularly for patients with chronic conditions to improve disease prevention and management. It can also improve the ability for efficient data flow and communication between PHC providers, interdisciplinary teams and specialists (eReferrals). When data is captured in a standardized way, clinicians can benefit from comparative reports that allow them to review trends, identify areas to focus efforts and prioritize programs that support quality improvement. Health system planners and policy-makers can use this data to inform decision-making and improve service delivery at the population level.

Who coordinated the development of the Pan-Canadian PHC EMR CS?

The Canadian Institute for Health Information (CIHI) led the coordination of the development of the pan-Canadian PHC EMR CS on behalf of the jurisdictions and in close collaboration with Canada Health Infoway (Infoway).

Who determined what data elements would be in the standard and in what common format?

A jurisdictional advisory group (JAG)—made up of senior representatives from the jurisdictions, Infoway and CIHI—was established to coordinate this initiative. The advisory group is supported by a pan-Canadian Content Standard Working Group (CSWG) that provided input and advice on what data elements are in the standard and in what format. This helped ensure that the PHC EMR CS was clinically relevant, aligned with existing standards where appropriate, met the needs of stakeholders and was implementable. The JAG and CSWG have representation from the jurisdictions, Infoway and CIHI. CSWG members also included clinicians, researchers and standards experts from across Canada.
What is Canada Health Infoway’s role in this initiative?

As a member of the project, Infoway is helping to ensure that the PHC EMR CS aligns with the pan-Canadian electronic health record (EHR) and EMR standard initiatives developed by Infoway and others. In some cases, Infoway’s EMR upgrade initiative provides funding to jurisdictions that adopt and implement the PHC EMR CS in their community-based EMRs. Infoway is also leading the development of a PHC terminology reference set for 53 data elements.

How many data elements form the core of the PHC EMR CS?

A total of 106 data elements form the core of the PHC EMR CS. Approximately one-quarter of these are demographic data elements that capture information on the patient, clinician and clinic; another quarter are encounter-specific data elements. The remaining data elements relate to other patient care activities, such as medications, laboratory orders and results, and family history.

What were the criteria for selecting data elements to be included in the PHC EMR CS?

Each data element had to support both primary use and health system use of PHC EMR data.

- Primary use supports the delivery and/or administration of care.
- Health system use supports monitoring the health of the population, health system management, research and clinical program management.

The data elements had to be captured in the normal course of the delivery and/or administration of care by PHC providers.

- The scope of the standard does not include detailed clinical notes or other information that is not required to support at least some health system use purpose.

Are there existing PHC EMR content standards for provinces or territories in Canada?

While several jurisdictions have established various types of EMR standards (functional standards, usability standards, messaging standards, etc.), it was determined that there was a need to develop and implement a common PHC EMR CS for use in EMRs across Canada.
What does “draft Pan-Canadian PHC EMR CS” mean?

The PHC EMR CS is considered “draft” because it has not yet been implemented and there are areas for further refinement that require implementation experience.

It is considered a pan-Canadian standard because it meets the following criteria:

- It is governed by a body with pan-Canadian representation.
- Its scope is to meet pan-Canadian requirements.
- It was developed with pan-Canadian input on clinical content, jurisdictional priorities and standards expertise.
- It was established by a pan-Canadian, consensus-based approval process.

In this context, the term “pan-Canadian” means “across Canada”; generally, in the health field, the term often implies representation from the majority of the health jurisdictions and other stakeholder categories from across Canada. The title “Draft Pan-Canadian Standard” was recommended by the CSWG in order to avoid confusion with labels used by the Infoway Standards Collaborative (“Canadian Draft for Use”) and other standards bodies, such as HL7 (“Draft Standard for Trial Use”).

What effort is being made to remove the “draft” status of this standard?

CIHI is working with Infoway and the jurisdictions to remove the draft status of the Pan-Canadian PHC EMR CS by developing the following companion products to support the uptake and adoption of this standard: a business view document; implementation guides; data extract specifications, including a logical model; XML schema; and business rules. Working in collaboration with key stakeholders, CIHI is also facilitating the adoption and implementation of the PHC EMR CS, which will provide critical implementation experience required to refine the PHC EMR CS and remove the draft status of the standard.

Scope

Will clinical terminologies or classification systems be recommended for use in PHC EMRs?

Yes. CIHI carried out an options analysis of PHC EMR clinical terminologies and classification systems to provide insight into this area. Infoway is developing PHC Reference Sets for the 53 PHC EMR CS data elements that require a reference set. Six important data elements, including “reason for visit” and “health issue,” were identified as potentially benefiting from the use of a terminology or classification system. The other data elements in the PHC EMR CS typically require less complex value sets (that is, simpler and shorter lists of eligible values). The options analysis recommended the clinical terminologies and classification systems that could be used for each of the six data elements,
based on their ability to meet four criteria: clinical relevance and level of detail, costs of adoption to all those affected, the quality of the standard and the clinical terminology’s ability to incorporate new Canadian needs.

**What clinical terminologies and classification systems were considered in the options analysis and who was included in the consultation?**

The clinical terminologies considered were the Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®); the Canadian Classification of Health Interventions (CCI); the International Classification of Primary Care, Second Edition (ICPC-2); the International Classification of Diseases, 9th Revision (ICD-9); the International Classification of Diseases, 10th Revision, Canada (ICD-10-CA); and the Electronic Nomenclature and Classification of Disorders and Encounters for Family Medicine (ENCODE-FM). The stakeholder consultation consisted of 23 international and national participants, including researchers and clinicians.

For more information on the clinical terminologies and classification systems considered in the PHC EMR CS Options Analysis, please visit CIHI’s website at www.cihi.ca/phc.

**Does the draft Pan-Canadian PHC EMR CS specify data elements on specialty care?**

The PHC EMR CS is intended to identify specific information that is collected by care providers during the course of a primary care patient visit. Currently, information to support the standard collection of specialty care data is beyond the scope of this project.

**Access**

**When is the PHC EMR CS expected to be available?**

Preliminary information was made available in summer 2010, and the *Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard, Version 2.0—Business View* was released in February 2011. In summer 2011, the following remaining products and artifacts were released on CIHI’s website and the Infoway wiki:

- *Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard, Version 2.0—Implementation Guide*;
- *Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard, Version 2.0—Data Extract Specification Business View*;
• Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard, Version 2.0—Data Extract Specification (including technical information available on the Infoway wiki); and
• Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard Clinician Benefits Information Sheet (fall 2011).

How can PHC EMR CS products and artifacts be accessed?

Products and artifacts related to the PHC EMR CS can be accessed and downloaded free of charge from CIHI’s website, at www.cihi.ca/phc, and are also available via the Infoway wiki: https://emri.infoway-inforoute.ca/References/Standards/CIHI.

Stakeholders wishing to access the resources from the Infoway wiki must be members of the Infoway Standards Collaborative. Membership information is available at www.infoway-inforoute.ca/lang-en/standards-collaborative/membership.

What happens now that the PHC EMR CS and its companion products have been released?

Jurisdictions will now have the option of incorporating this standard into their PHC EMR requirements. Future refinement and support of the standard will be provided through a process that fits with other ongoing standards initiatives. To support adoption and implementation of the standard, CIHI has collaborated with Infoway and the jurisdictions to develop the necessary materials for developers and implementers, including a business view document, data extract specification that includes a logical model, XML schema, business rules and general implementation guidance documents.

Adoption and Implementation

Who is driving the adoption and implementation of the PHC EMR CS?

Jurisdictions across Canada, as well as Infoway and CIHI, are working in collaboration with key stakeholders to facilitate the adoption and implementation of the PHC EMR CS. This coincides with the rapid evolution and increased use of EMRs in PHC settings across all jurisdictions.

What is the role of the JAG and CSWG with this phase of adoption and implementation of the PHC EMR CS?

The JAG will support adoption and implementation of the PHC EMR CS by providing approval advice and strategic guidance on adoption, implementation, stakeholder engagement and ongoing governance. The CSWG will provide input and expert advice on the adoption and maintenance of the PHC EMR CS.
to ensure that they are clinically relevant, aligned with existing standards where applicable, and implementable. CSWG will make recommendations to JAG on the content, prioritization and scheduling of product releases.

How are jurisdictions supporting adoption and implementation of the PHC EMR CS?

Jurisdictions are supporting adoption and implementation through the following activities:

- The inclusion of all or part of the PHC EMR CS data elements in vendor requests for proposals (RFPs) or vendor requirements;
- Gap analyses on jurisdictional EMR data and the PHC EMR CS;
- Vendor engagement through conformance and quality testing, training and support, and jurisdictional priority indicators;
- Clinician engagement to promote EMR adoption and use of standards (clinical peer leaders); and
- The offering of incentives for EMR adoption, upgrades and meaningful use of EMR data.

How is CIHI supporting jurisdictional adoption and implementation of the PHC EMR CS?

While CIHI’s jurisdictional support varies based on jurisdictional readiness and other factors outside of the scope of this initiative, CIHI offers the following services:

- Content and technical expertise on the PHC EMR CS products and artifacts;
- Gap analyses on jurisdictional EMR data, the PHC EMR CS and priority indicators to support quality improvement and accountability;
- Input and feedback on jurisdictional EMR specifications;
- EMR vendor conformance and quality testing of the PHC EMR CS and feedback reports to clinicians, vendors and jurisdictions on conformance, indicators and lessons learned;
- Ongoing communication and outreach to jurisdictional stakeholders to support priority information and reporting needs; and
- Collaboration on clinician engagement, demonstrations in clinical value of standardized EMR data and peer leader workshops.

How is CIHI supporting EMR vendors to implement the PHC EMR CS in their software solutions?

CIHI is collaborating with jurisdictions to support EMR vendor implementation of the PHC EMR CS, including conformance testing. As vendors upgrade clinical sites, they may submit data to CIHI’s Primary Health Care Voluntary Reporting System (PHC VRS) to assess quality indicators for
completeness and compliance with the PHC EMR CS. Safeguards are in place to ensure that data submission follows CIHI’s privacy and security policies and procedures. As part of conformance testing, CIHI will provide each vendor with a technical data quality report. Participating clinicians will receive a clinician-friendly feedback report to support quality improvement in their practice.

**When will the PHC terminology reference sets be developed and available for use?**

Of the 106 data elements in the PHC EMR CS, 53 data elements require a PHC terminology reference set. *Infoway* is leading the PHC reference set development project, expected to be completed by February 2012. CIHI is working closely with *Infoway* to provide support on content and technical expertise on the PHC EMR CS data elements. For more information on the PHC Terminology Reference Sets, please send an email to SC Standards Information Desk (standards@infoway-inforoute.ca) or access Canada Health Infoway’s website at www.infoway-inforoute.ca.

**What efforts are being made to ensure the maintenance and future release of the PHC EMR CS?**

Maintenance of the PHC EMR CS will be required to ensure that it remains clinically and technically relevant as stakeholders’ needs evolve. Maintenance encompasses problem management, change management, configuration management and release management.

CIHI has developed a comprehensive set of policies, procedures and processes to facilitate the maintenance and deployment of the PHC EMR CS. CIHI will continue to be guided by the JAG and CSWG and will collaborate with *Infoway*, including the Standards Collaborative team, to ensure that maintenance activities are aligned where necessary.

**Will PHC providers be required to collect new or different data?**

No. Much of the data in the PHC EMR CS is already captured in EMRs, but it is often located in free-text fields, scanned into the EMR or captured in clinical notes. This makes it difficult to extract, analyze and compare PHC EMR data. The PHC EMR CS is focused on standardizing data elements to facilitate discrete, structured data capture and extraction. The use of standards in EMRs is expected to benefit PHC providers; with proper design features, it is anticipated that the PHC EMR CS will yield improved information to guide clinical decision-making in PHC settings.
When a clinician implements a PHC EMR CS compliant product, is there an obligation to share or submit data to CIHI?

No. Clinicians who implement PHC EMR CS–compliant EMR products are not obligated to collect, share or submit data to CIHI. CIHI does not mandate the use of the PHC EMR CS. Sending PHC information to CIHI is voluntary and done in accordance with CIHI’s privacy and security policy. In exchange, participating clinicians and their patients benefit through clinician feedback reports to support quality improvements in their practice.

Is there a cost to purchase the PHC EMR CS?

No. The PHC EMR CS is being included in select PHC EMR software by various jurisdictionally approved EMR vendors across Canada. There is no cost to purchase the draft Pan-Canadian PHC EMR CS. The PHC EMR CS and supporting products are available as free downloads on CIHI’s website, at www.cihi.ca/phc.

Privacy

Is a patient’s privacy impacted by implementing the PHC EMR CS?

The PHC EMR CS can increase the protection of patient privacy by providing a safer, more efficient way of collecting and transferring PHC data, for example, by limiting the sharing of information to a discrete data element rather than the use of free text.

When implementing the PHC EMR CS, what consideration should be given to privacy policies and legislation?

Users of the PHC EMR CS, including the Data Extract Specification and the Implementation Guide, should comply with the 10 privacy principles established in the Canadian Standards Association’s Model Code for the Protection of Personal Information, as well as the relevant jurisdictional privacy legislation and guidance provided by privacy oversight bodies.

Users of the PHC EMR Data Extract Specification need to ensure that they respect their organizations’ privacy policies and practices and meet the required standards in safeguarding the important and sensitive information they are trusted with.

For more information, please contact CIHI at phc@cihi.ca.