



Interchange

News from the Inforoute Standards Collaborative and Solution Architecture Group

New standards coordination function created at *Inforoute*



I am pleased to welcome you to the first issue of *Interchange*, the newsletter of the *Inforoute* Standards Collaborative and the Solution Architecture Group.

The *Inforoute* Standards Collaborative was established in April as a Canada-wide coordination function to support and sustain health informatics

standards. Currently, Canada's health information standards activities are managed by several different organizations and initiatives. The *Inforoute* Standards Collaborative will begin integrating this work — helping to streamline efforts and increase efficiencies. It will be responsible for the implementation support, maintenance, conformance and education for EHR standards currently being developed by *Inforoute*.

In addition, the Collaborative is also taking on the work of several of the country's core standards initiatives previously managed by the Canadian Institute for Health Information (CIHI). These include the Partnership for Health Information Standards, HL7 Canada and liaison with Digital Imaging and Communications in Medicine (DICOM).

The Collaborative will be housed within *Inforoute* on an interim basis for two years under my leadership. The decision to create it was reached after extensive consultation with stakeholders and approval by both the *Inforoute* and CIHI boards and endorsement by the federal/provincial/territorial Conference of Deputy Ministers of Health. *Inforoute* and CIHI are working together to ensure a seamless transition of resources and responsibilities. Accordingly, this newsletter is the first tangible example of better coordination and

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streamlining of information delivery to our stakeholders. *Interchange* will include news about the standards being developed by *Inforoute* and the work of its solutions architecture groups. In addition, *Interchange* will carry news about HL7 Canada, the Partnership for Health Information Standards and DICOM.

I hope you enjoy reading this newsletter and I welcome feedback from readers. Please do not hesitate to contact us at archinfo@inforoute-inforoute.ca if you have any questions or wish to suggest a pan-Canadian standards news item for further issues. Read on!

Dennis Giokas
Chief Technology Officer
Canada Health Inforoute

Standards Collaboration Process - Steering Committee Report

Three “stable for use” standards approved

The EHR Standards Steering Committee (SSC), at their meeting held March 22, approved the Provider Registry and the Client Registry pan-Canadian EHR standards and the Cross Enterprise Document Sharing for Imaging EHR Interoperability Profile (XDS-I) as “stable for use.”

These standards are the first group to receive this designation and this represents an important step towards achieving solutions which are interoperable and facilitate the sharing of meaningful health information in Canada.

The “stable for use” decision point was introduced to the Standards Collaboration Process (SCP) very recently as a means to signal to industry that a standard is ready to be implemented on a pan-Canadian basis but may not have completed the full approval process, including pilot testing and/or international balloting.

Two other important decisions were also approved at the March 22nd SSC meeting, based on recommendations from the Standards Advisory Committee (SAC):

- The pan-Canadian Laboratory Standards were approved at the Standards Selection stage of the life cycle for further analysis and evaluation; and
- A series of recommendations to further clarify the stages and decision points of the Standards Life Cycle was also approved.

SNOMED CT® sent for evaluation and piloting

At its February meeting, the SSC selected SNOMED CT® for evaluation and piloting in both English and French as the Canadian standard for the reference terminology of the pan-Canadian iEHR for the 27 priority Clinical Information Groups (CIGs).

The SSC also agreed to move it to the next phase of the Standards Life Cycle where further detailed analysis work will be carried out so that SNOMED CT can be evaluated and tested as rapidly as possible.

All health professionals, representing jurisdictions, vendors, associations and clinicians, interested in learning more about these standards and their implementation can find updated documentation on Infoway’s KnowledgeWay at <http://knowledge.infoway-inforoute.ca>

New version of Blueprint released

Canada Health Infoway recently released an enhanced version of the Electronic Health Record Solution (EHRS) Blueprint, a business and technical framework guiding the sustainable development of the interoperable Electronic Health Record (EHR) across Canada. First published in 2003, the Blueprint has been enhanced recently to provide more detail on how standards-based technology can be used to support sharing of EHR information. It shows how *Infoway’s* newer investment programs, Telehealth and Public Health Surveillance, fit in with the EHR.

The new version of the Blueprint integrates elements of the Privacy and Security Architecture, which guides the private and secure sharing of health information. Protecting the confidentiality of health information is fundamental to *Infoway’s* vision. Updating the Blueprint was a collaborative effort based on extensive consultations with stakeholders, including government representatives, privacy and security representatives, technology vendors and healthcare professionals.

To view the Blueprint, please visit: <http://knowledge.infoway-inforoute.ca>

CeRx publishes complete baseline version

The Canadian Electronic Drug (CeRx) Standards Project has recently reached a major milestone with the publication of a complete baseline version. This version closes previously outstanding work tasks – including vocabulary related items – identified by reviews and deliberations of the CeRx-pan-Canadian Standards Group (pCSG) as well as by technical assessments from early adopters. Starting with this publication, the CeRx specifications now feature:

- A detailed tracking framework to itemize any changes going forward from this baseline;
- In-depth stability remarks to help early adopters to gauge the stability of these specifications in light of ongoing ballot activities at HL7 International and anticipated ballot activities at HL7 Canada; and
- A thorough (if still somewhat preliminary) assessment of how SNOMED CT can be used within the specifications.

The project team is currently working on finalizing the CeRx Implementation Guide which packages the specification

together with extensive guidance to implementers. This document, together with other final updates, will allow CeRx to begin the public review cycle – the first step in its journey towards a “Stable for Use” designation.

Work with various HL7 committees is continuing in a bid to gain ballot approval for the underlying international specifications. Subject to progress on these activities, it is expected the Canadian (realm specific) specifications will go through an HL7 Canada ballot later this year.

For further information on the CeRx project please contact Marc Koehn at mkoehn@infoway-inforoute.ca.

Defining the EHR for comprehensive patient care

The pan-Canadian interoperable Electronic Health Record (iEHR) standards project is an *Infoway*-led messaging and terminology project which begins to introduce the messaging and terminology that will be used in the Shared Health Record (SHR). This project introduces and further elaborates on the concept of the Shared Health Record (SHR), a key clinical data repository within the EHR. The iEHR standards will allow sharing of clinical information not currently captured in the various single domain repositories of the EHR, such as the laboratory or drug information systems. This project will provide the ability to integrate information from the SHR and the domain repositories into a coherent picture of a patient’s longitudinal health record.

The iEHR standards project will provide messaging and terminology standards to allow healthcare providers to share health information with each other to enhance communication between providers. The standards will encompass the following concepts:

- **Service Delivery Location:** Healthcare providers will be able to get information about service delivery locations.
- **Professional Services:** Gives healthcare providers the ability to record procedures and services provided to patients.
- **Care Compositions:** Encompass various types of patient-provider interactions, i.e., encounters, episodes of care. These standards will allow healthcare providers to group various healthcare services in a coherent whole, allowing them to quickly understand what services were provided for what reason.
- **EHR Event Index:** This standard will allow quick retrieval of a patient’s record, regardless of whether it was provided in their home town or across the country.
- **Clinical Observations:** Healthcare providers will also be able to share information with other providers that is not

captured through other messages.

- **Discharge / Care Summary:** Clinicians will be able to submit summary documents about care that a patient may have received in a hospital or from a specialist. These documents will be accessible to primary care physicians, nurse practitioners and other members of the primary care team who are providing continuing care to a patient.
- **Referral Note:** These messages will provide the documentation required to refer a patient to another provider – either an individual clinician or a health service organization – to receive more specialized diagnostic or therapeutic services.
- **EHR Clinical Summary/Profile Retrieval:** This message provides a generic querying mechanism to fulfill requests asking for a view of the latest information on all aspects of data maintained about a patient in the EHR. This message allows a clinician to view laboratory results, medication lists, X-ray reports and other communications that may be on the EHR for a particular patient.

There are currently active iEHR projects in 11 jurisdictions. 10 of those projects are in a position to use these specifications in 2006. For further information, please contact Laith Boussabah at lboussabah@infoway-inforoute.ca

Public Health Surveillance Standards Project launched

Public Health Surveillance (PHS) messaging and terminology standards are critical to the deployment of a pan-Canadian PHS Solution and achieving *Infoway’s* goal of an interoperable pan-Canadian Electronic Health Record.

To accelerate the establishment and the adoption of the PHS Solution, *Infoway* has initiated the PHS pan-Canadian Standards Project (PHS Standards Project).

The Public Health Surveillance Standards Project will leverage the Standards Collaboration Process (SCP) to establish the standards required to support the PHS solution in the identification, management and control of infectious disease cases and outbreaks that pose a threat to the public’s health.

The scope of the standards will include HL7 v3 messaging standards and the terminologies required to facilitate data sharing. The Public Health Surveillance pan-Canadian Standards Group (PHS pCSG) will be critical in providing review and validation of pan-Canadian requirements in this area.

The PHS pCSG project was initiated in January 2006 and will close in January 2007. The timelines for this project are

extremely tight due to the requirement to deliver standards necessary to support the parallel development of the PHS Solution. Project participants will be provided with detailed project schedules.

For further information on the PHS pan-Canadian standards project please contact Helen Stevens at hstevens@infoway-inforoute.ca

Update from the Canadian Standards Association

Internationally, Canadian delegates attended ISO's Health Informatics Technical Committee (ISO/TC215) annual meeting in Jeju, Republic of Korea.

Here in Canada, four documents from ISO/TC215 are being evaluated for potential Canadian adoption through the Canadian Standards Association's Health Informatics Technical Committee (Z295)

- CAN/CSA-17432-06, Health Informatics – messages and communication – Web access to DICOM persistent objects;
- CAN/CSA-20514-06, Health Informatics – Electronic health record – Definition, scope and context;
- CAN/CSA-21667-06, Health Informatics – Health indicators conceptual framework; and
- CAN/CSA Z22857, Health Informatics – Guidelines on data protection to facilitate trans-border flows of personal health information

For information on international and national health informatics standards activities, please contact:

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International Technology and Communications in Health (ITCH) 2007 Conference

Health regions, hospitals, provincial systems and physicians are all increasingly investing in clinical applications that will eventually build the electronic health record. The value from these investments will only be realized if we combine, compare, and share the information across applications, across

Starring Standards 10th Anniversary Partnership and HL7 Canada Joint Conference and Gala

Join us at the Crowne Plaza in Ottawa June 6-11 for "Starring Standards" and the HL7 Canada Education Summit. This conference, co-hosted by Canada Health Infoway Inc. and Canadian Institute for Health Information (CIHI), is packed with engagement and educational sessions, keynote speakers, 10th anniversary celebrations and working group meetings. Special sessions include a SNOMED CT workshop, HL7 Canada Working Committee Meetings and extensive engagement sessions on the *Infoway* Standards Collaborative, the new pan-Canadian standards coordination function, and more. Whether you are interested in reflecting on and celebrating the past, concerned about current progress or ready to invest in the future, this is the health information standards conference to attend in 2006.

Don't miss the early bird special. Register by May 12 and receive a special discount. For more information and to register please visit <http://www.cihi.com> or email us at Partnership@cihi.ca.

departments, and across sites and settings of care. Standards will make this possible.

Technical standards, based on proven, international requirements are available in areas such as:

- Web services: Simple Object Access Protocol (SOAP), Web Service Definition Language (WSDL) and Universal Description, Discovery and Integration Protocol (UDDI);
- Hyper-Transfer Protocol (HTTP) and File Transfer Protocol (FTP);
- The World Wide Web Consortium (W3C) accessibility guidelines;
- IEE 1073 Medical Device Communication standards;
- Lightweight Directory Access Protocol (LDAP);
- ISO 17799 for security management;
- BS 15000 for service management; and
- eXtended Mark-up Language (XML).

The extent to which the above standards are being used will be discussed at ITCH 2007, an international conference being

held in Victoria, British Columbia, Feb 16-18, 2007. "Today's information for tomorrow's improvements" is the working theme for ITCH 2007.

The need for better information and systems to provide improved services and improve patient quality of life has been recognized as being a critical issue both nationally and internationally. Problems related to the use, usability and usefulness of many healthcare systems continue to hinder and limit the potential of information technology in health care.

This conference will focus on understanding how health informatics can be applied towards quality improvement of health and healthcare organizational outcomes.

ITCH 2007 will promote an international and interdisciplinary gathering of leading practitioners and researchers from Canada and internationally to support today's information systems and ensure tomorrow's improvements.

For more information, please send an e-mail to itch@uvic.ca

News from the Ontario Health Informatics Standards Council

Kick-starting the year with the endorsement of six standards, the Ontario Health Informatics Standards Council (OHISC) is pleased to announce approval of the following:

Tier 1

- Pan-Canadian Electronic Drug Messaging Standard (CeRx)
- Privacy and Security Conceptual Architecture (PSA) Position Paper
- Systemized Nomenclature of Medicine Clinical Terms (SNOMED CT)

Tier 2

- Ontario Health Client Identification Data Dictionary (OHCIDD)
- Ontario Laboratory Information System (OLIS) Nomenclature Standard

Tier 3

- Network Operating Standards: Virtual Private Networks, Firewalls, Internet Protocol for large-scale institutions

With such an aggressive start, 2006 promises to be a watershed year for OHISC. Please stay tuned for the launch of the OHISC Portal and the Standards Library.

For further information, please contact the OHISC secretariat at standards@ssha.on.ca

CIHI Data Dictionary Project enters second phase

The CIHI Data Dictionary Project is well into its second phase (scheduled to end in the Fall of 2007). During this phase, data elements are being deployed for internal review/input and approval using the ISO 11179 standards-based approach.

Once complete, there will be over 1,000 data elements defined for use across all CIHI data holdings. During this phase, the intention is to populate the web-based Data Dictionary application with the approved data elements, complete Pan-Canadian knowledge exchanges and, through a collaboration process, develop recommendations for a corporate-wide CIHI Data Dictionary adoption strategy.

For more information, please contact Paula Freedman at pfreedman@cihi.ca.

OHISC - What Approval of Each Tier Means

Tier 1 – Approval for Consideration offers a solution for an identified business need or standards requirement. Although other alternatives may exist, the approved standard can be considered for use.

Tier 2 – Approval of Draft Standard for Trial/Limited Use enables early adopters to pilot using the standard and report back to OHISC on the outcome of its use. This feedback could also initiate a request for maintenance to the SDO/SMO that developed or maintains the standard. Limited use means applicable to a specific sector (e.g. large hospitals) or time-limited.

Tier 3 – Approval for Use means that the approved standard becomes an integral part of any related e-Health business decision and should be used by all e-Health initiatives when it satisfies business and technical requirements.

SoQibs annual meeting

SoQibs, Société Québécoise de l'informatique Biomédicale et de la Santé, is holding its annual meeting June 2-3 in Drummondville, Québec.

As usual, the meeting is intended as a forum for the exchange of ideas and facilitating contact between implementers and designers. Principal themes are the convergence of local, regional and provincial health information systems.

For more details, visit <http://www.soqibs.org>

CIHI's Organizational Index underway

The purpose of this project is to create a centralized Organizational Index (OI) that uniquely identifies organizations submitting data to CIHI's data holdings and to capture changes to the organizational data over time. The ability to track changes to organizations and their data submissions will support analytical activities such as organization trending and cross data holding queries.

The project is proceeding well and will complete its Phase 1 implementation in May 2006. For more information, please contact Gavin Tong at gtong@cihi.ca.

News from the Canadian Nurses Association

The Canadian Nurses Association (CNA) is pleased to note that nurses' involvement in informatics continues to grow at local, provincial/territorial and national levels. Here are a few news highlights.

CNA lobbies SNOMED International for inclusion of nursing terminology

For any health standard to be interdisciplinary and international, it must have strong global partners. The CNA vision is for an integration of clinical data from all disciplines to support healthcare delivery across all care settings and across geographic boundaries, a vision strongly informed by the need for interprofessional practice within Canada's healthcare delivery systems to support healthcare effectiveness and renewal.

The CNA recommends that the new governance structure for the SNOMED CT Standards Development Organization (SDO) identify the International Council of Nurses (ICN),

and its International Classification for Nursing Practice (ICNP®) Programme, as a strong partner to represent international nursing. A future and ongoing joint partnership of these two organizations will be a major asset to international standards work. Canada Health Infoway has recently indicated to CNA their support of the need for a future and ongoing joint relationship between the new SNOMED SDO and ICN.

Canadian Nurses Portal to be launched

NurseONE (in French, INF-Fusion) will be launched on June 18 at the CNA Biennium in Saskatoon. Nurses, regardless of geographic location, will have reliable, equitable access to a vast array of credible, up-to-date information with a single login. Through this Portal, nurses across Canada will access continuing education, manage knowledge and improve evidence-based care.

Nationwide consultation

A strategic document, "Supporting the Professional Practice of Canadian Nurses Through Information and Communication Technologies" was circulated between January and March 2006. From this consultation, CNA has identified priority needs for nurses as they move into the information age, including:

- Lobbying governments and employers for access to information and communication technologies (ICTs) – to ensure that nurses have the required hardware and software, access (including broadband) to Internet, education on nursing informatics and support to use ICTs in the workplace.
- Supporting the development and importance of nursing informatics skills as among competencies required for entry-to-practice and continuing competence.

DICOM Update

The Digital Imaging and Communications in Medicine (DICOM) Standards Committee exists to create and maintain international standards for communication of biomedical diagnostic and therapeutic information in disciplines that use digital images and associated data. The goals of DICOM are to achieve compatibility and to improve workflow efficiency between imaging systems and other information systems in healthcare environments worldwide. The following is the latest news from the DICOM Committee

DICOM Standards Committee meets in Japan

The DICOM Standards Committee met recently in Yokohama, Japan, on April 10, 2006. Of immediate domestic

significance is the approval to move the DICOM Standards Committee membership to Canada Health Infoway Inc. from CIHI.

The complete minutes, Working Group reports and other submitted reports (including liaison updates from HL7, ISO, IHE, and ITU) of this meeting will soon be available on the NEMA-hosted DICOM page <http://medical.nema.org/>

DICOM Specifications Open for Ballot or Comment

Several letter ballots are currently open with the DICOM membership.

- Proposed DICOM Correction Package 36
- Draft Supplement 111 "Segmentation Storage SOP Class"
- Draft Supplement 112 "Deformable Spatial Registration Storage SOP Class"
- Draft Supplement 113 "E-Mail Transport"

Please note that only the officially designated voting representatives of DICOM Standards Committee members (or

their alternates) are permitted to cast ballots. This permission notwithstanding, copies of these ballots are openly available to the DICOM Community so that everyone can be informed about proposed developments and extensions to the Standard. The DICOM Community is cautioned that these proposals must not be used in products until they have reached their final approved form as part of the DICOM standard.

Members of the Partnership and other interested Canadian stakeholders and observers are invited to visit the DICOM website (<http://medical.nema.org/>) to obtain a copy of the specific ballot(s) of interest and to submit comments and/or ballot positions to Grant Gillis at ggillis@infoway-inforoute.ca at Canada Health Infoway for submission onwards to the DICOM Standards Committee. The deadline is May 25th.

HL7 Canada News

Three positions on the HL7 Canada Board of Directors were recently confirmed by the HL7 Canada Board after the nomination and election process came to a close. There were two acclamations, with Danna Dobson taking on a second term as Director with knowledge of Federal, Provincial and Territorial Health Jurisdictions, and Graham Payette being elected by acclamation to his first term as Director with knowledge of Health Service Delivery Organizations. There was an election for the Director with knowledge of Vendors/Suppliers/ Consultants/Private Payers, with Andrew Cripps and Michael Van Campen contesting the Directorship. Michael van Campen will be succeeding to his second term; we thank Andrew for letting his name stand. All terms are for two years, effective May 1st.

The HL7 Canada Secretariat reminds members that the HL7 Inc. May ballot was to remain open until April 27th, so please visit the HL7 Canada website for further information. The results of the ballot will be considered at the upcoming Working Group meeting in San Antonio, Texas May 7-12, and reported thereafter to the members.

Finally, HL7 Canada membership renewal and recruitment is in full swing. To ensure your continued access to the HL7 standards and other materials, don't delay in renewing your membership. Visit the HL7 Canada website for further details or please contact Linda Monico at lmonico@infoway-inforoute.ca



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Interchange

Interchange is an e-publication of the Infoway Standards Collaborative and Solution Architecture Group. In addition to news about *Infoway*-developed standards, this newsletter also includes updates on HL7, Partnership for Health Information Standards and Digital Imaging and Communications in Medicine (DICOM) which are part of the Infoway Standards Collaborative. We welcome submissions on standards and architecture-related topics of general interest to the health informatics standards community.

To comment, submit or suggest a news item, please e-mail Dennis Giokas at archinfo@infoway-inforoute.ca

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