ON DI Terminology and SNOMED CT

MIIT

May 11, 2012

Ontario DI Terminology Project

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The Ontario DI Terminology Project

- The purpose of the ON DI Terminology project is to standardize key diagnostic imaging data (e.g. modality, body part, procedure, laterality and contrast) by establishing a single Ontario DI Terminology Set as the common terminology for electronic communication
- The Ontario DI Terminology Project is sponsored by *Infoway* and eHealth Ontario and managed by Mohawk Shared Services; eHealth Ontario will become the custodian of the ON DI Terminology Set and terminology related artefacts
- A clinical working group consisting of representatives from across the provincial DI-r projects, eHealth Ontario and Infoway meets weekly
- Physician representation from Ontario hospitals is being consulted to address specific issues, as needed
- SCWG10 DI has DI terminology as a work item with updates on the ON Terminology Project

http://forums.infoway-inforoute.ca/SCWG10D/

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SNOMED CT®
Frequently Asked Questions

What is SNOMED CT®?

- **S**ystematized **No**menclature of **Med**icine - **C**linical **T**erms
  (SNOMED CT® or SCT)
- Is an internationally accepted terminology coding standard that enables sharing of all relevant clinical information (e.g. diagnoses, medications, results, orders, etc.) across the continuum of care and geographical boundaries
- Can be used to represent clinically relevant information consistently, reliably and comprehensively in electronic records
- Improves patient health through improved representation of clinical information
- Is considered to be the most comprehensive, multilingual health care terminology in the world
- The clinical data can be communicated in a standard way between health care systems and individuals

Source: https://sl.infoway-inforoute.ca/content/dispPage.asp?cw_page=snomedct_e

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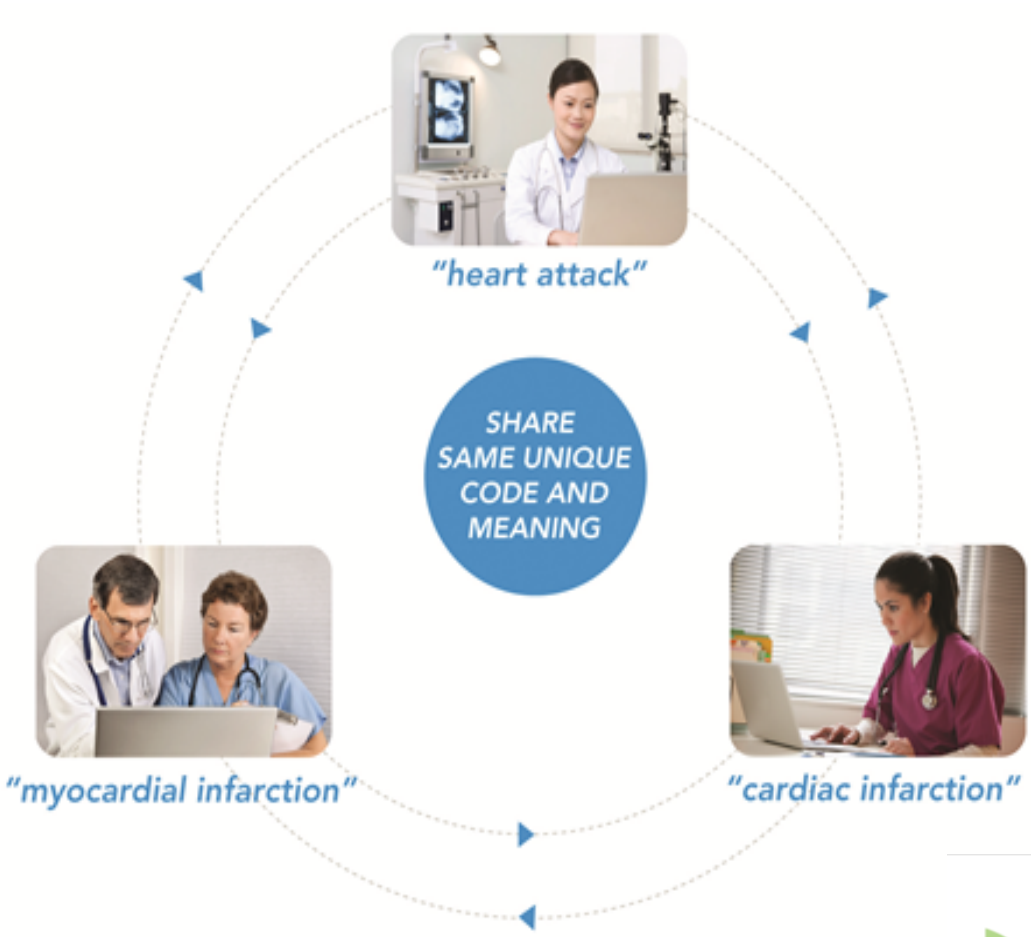
How does SNOMED CT® work?

Clinicians can record information in their preferred way without losing its intended meaning



Source: Canada Health Infoway

Benefits of SNOMED CT®

- Captures clinical information at the level of detail needed by clinicians for the provision of care in all health care disciplines and most health care settings
- Is the terminology "standard of choice" for semantic interoperability of EHRs
- Has the desirable features that make it a good clinical vocabulary, such as non-semantic concept identifiers, is concept oriented, recognizes redundancy, has multiple granularities and consistent views, and is characterized by graceful evolution

Source: Canada Health Infoway

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Why did Canada Health Infoway adopt SNOMED CT for use in the electronic health record?

- Canada Health Infoway (*Infoway*) has approved and adopted SNOMED CT® as a clinical standard to support the electronic health record (EHR) and facilitate the building of a pan-Canadian EHR network

- SNOMED CT® supports the interoperability of EHRs (i.e. the iEHR) by reducing the variability in how data is captured, encoded, and used for patient care

Source: Canada Health Infoway

- *Infoway* Standards Collaborative approved SCT as a Canadian Approved Standard (CAS) for 11 Clinical Information Groups (CIG)

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Canada Health Infoway | Inforoute Santé du Canada

La version française suit la version anglaise

Infoway Standards Collaborative Bulletin

March 8, 2012

- ***Infoway* designates new Canadian Approved Standards**

***Infoway* designates new Canadian Approved Standards**

For the second time in Canada, a set of health information standards have reached the status of Canadian Approved Standard (CAS), demonstrating that they are stable for use and can be implemented in health care systems Canada-wide.

Standards designated as CAS go through *Infoway*'s pan-Canadian Standards Decision Making Process, an open, transparent evaluation governed by jurisdictional representatives, clinicians, vendors and leading experts in the field. When approving a standard, committee members consider business and technical requirements, clinical relevance, interoperability, financial factors and governance.

Standards can progress as complete versions or components meeting specific clinical, technical or business needs. They can be internationally based, developed by external stakeholders for a specific Canadian initiative, or *Infoway*-led.

The four CAS standards are:

- **Systemized Nomenclature of MEDicine Clinical Terms (SNOMED CT):** A terminology standard used to capture, retrieve, aggregate and share relevant clinical information across health care settings and providers. Eleven priority clinical domains within SNOMED CT have been designated CAS.
- **Canadian Health Outcomes for Better Information and Care (C-HOBIC) Data Set:** A suite of standardized clinical terms and concepts that reflect nursing practice and document patient outcomes in electronic health records.
- **Health Canada Drug Identification Number (DIN):** Identifies

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Why SNOMED CT® for Ontario?

- DI Common Service solutions require the use of generally accepted industry standards and at minimum use of :
  - DICOM
  - HL7
  - Integrating the Healthcare Enterprise (IHE) Integration Profiles
  - SNOMED CT
- eHealth Ontario has specified that SNOMED CT will be the standard on which a common terminology will be developed for sharing of patient information via DI Common Services and the provincial (Health Information Access Layer) HIAL terminology registry
- Access to DI procedures “normalized” to the ON DI Terminology set will be via regional EHR portals, DI Common Service portlets/viewer and Physician EMRs
- These access solutions will leverage the ON terminology registry service in their retrieval of DI images and results from the provincial DI-rs via the provincial HIAL and ON DI Common Service

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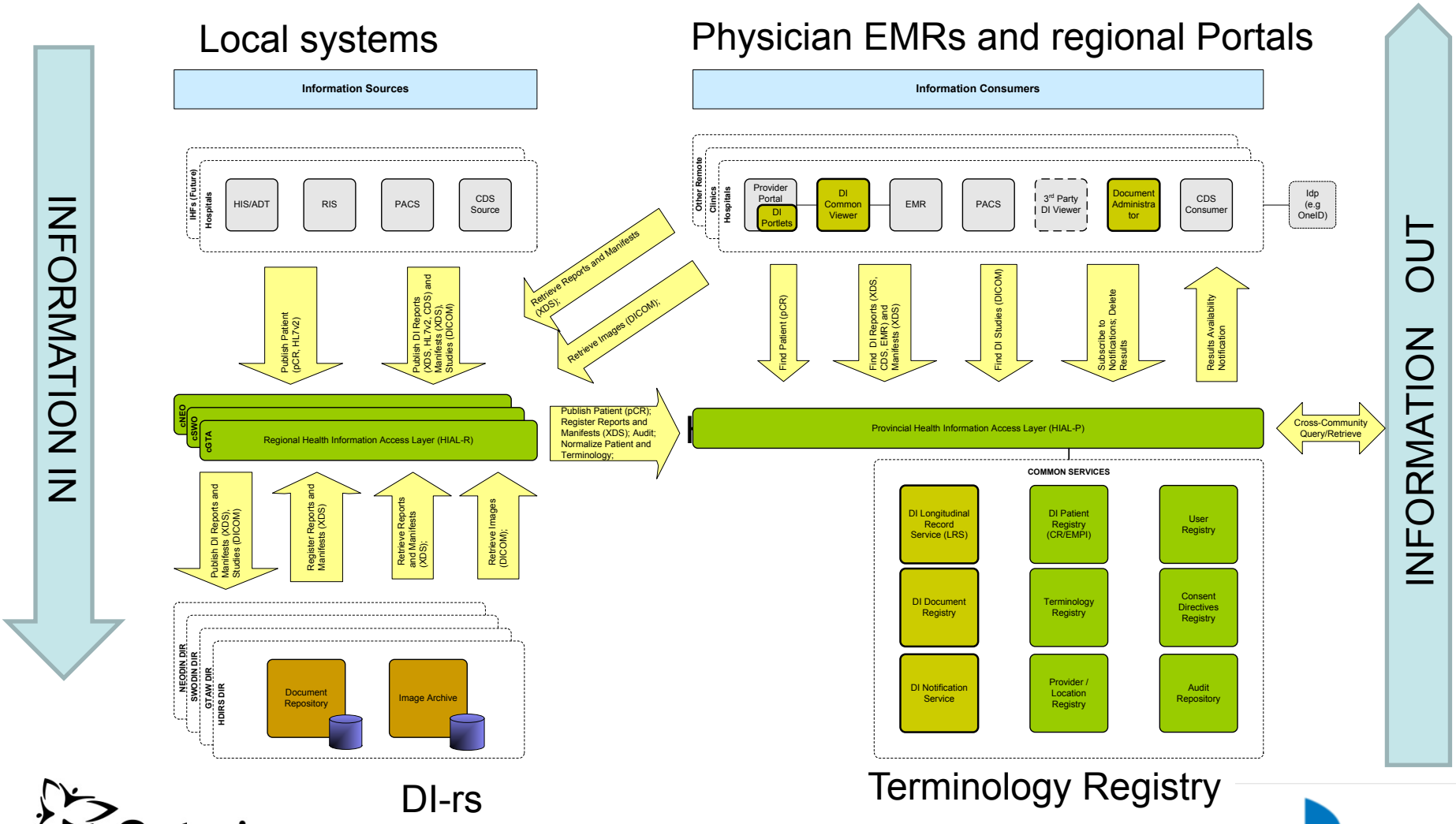
The Ontario Technical Architecture



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Current State

- National DI Terminology Set Spectrum:
  - Provincial Common Exam and Procedure Lists, regional and local DI terminology sets; based on RadLex, CIHI, CCI, provincial billing terms, naming conventions based on SNOMED CT, and combinations of terms within Terminology sets exist

- Challenges of existing DI terminology sets are:
  - Lack intended clarity
  - Length of terms (system limitation)
  - Inactive, duplicate, ambiguous terms
  - Lack of granularity with available terms
  - Inconsistent mapping.

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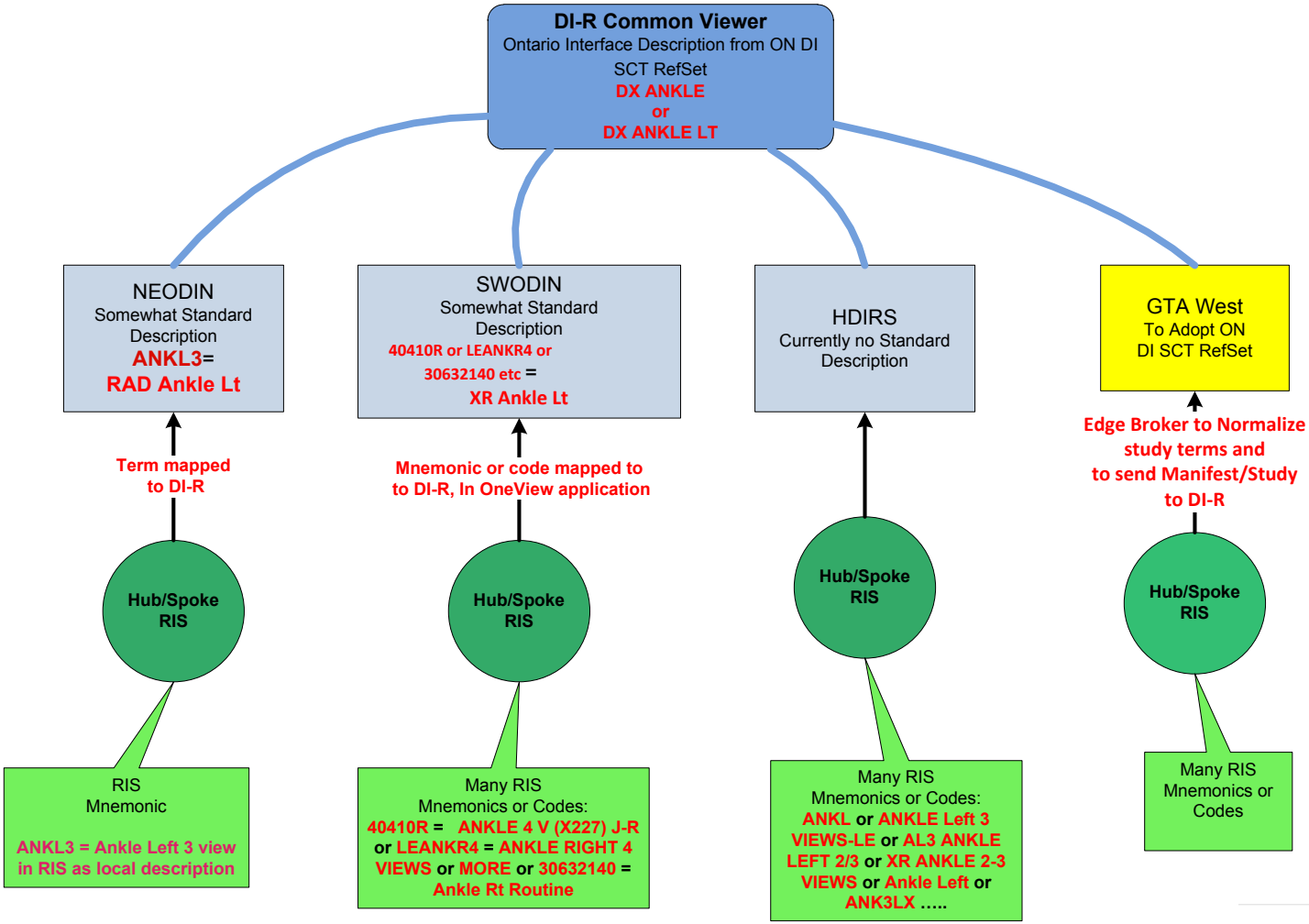
Ontario DI-r Landscape



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Project Scope

- Create an Ontario DI Terminology Set that is to be mapped to SNOMED CT

- Define Terminology Mapping rules and create documentation to support mapping of local DI procedure terms, in readiness to support the Ontario DI Common Services Project and Ontario Diagnostic Imaging Repositories initiatives to provide hospital-based access to a patient's full provincial DI record (from the date the records were stored in the DI-r, and the live date for the DI Common Service)

- Assist hospitals across Ontario to map their local DI Procedure terms to the ON DI Terminology

The ON DI Terminology Set will support the discovery, retrieval and collation of patient DI records regardless of the originating site, location, vendor, and patient identity associated with the patient DI records

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Project Out of Scope

- ON DI Terminology set mapping to MIS codes, OHIP Billing Codes and CCI codes is not within the scope of this project and secondary use such as. metrics, quality indicators and patient outcomes, are also out of project scope and may be addressed in the near future

- The purpose of the ON DI Terminology Set is not to replace local RIS dictionaries, but to support the user access through the ON DI CS

- The ON DI Terminology Set translation to French, is out of scope of this project

Hospitals will continue to use their existing RIS/PACS dictionaries; some maintenance may be required to address unused codes

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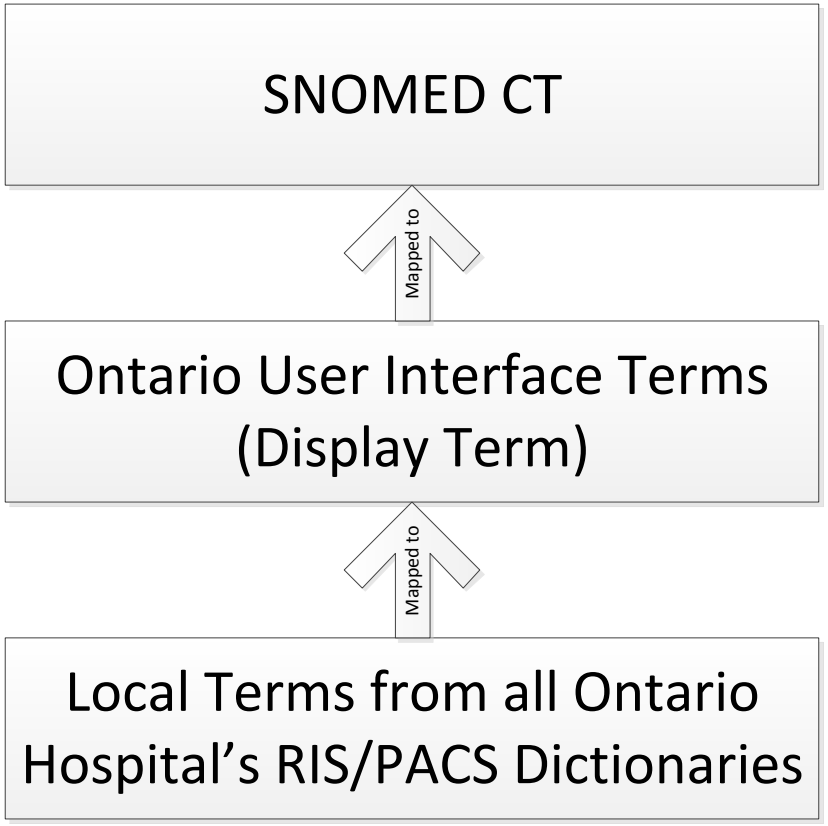
The Ontario DI SCT Terminology Set

The Ontario DI SCT Reference Set



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To Date

- Creation of ON DI Terminology Work Group
- Creation of Ontario Diagnostic Imaging Terminology Set
  - Completion of Draft 1 of the ON User Interface Terms
  - In the process of completing the mapping to SNOMED CT®
  - RFCs will be submitted to *Infoway* for additions to SCT
- ON DI Terminology Pilot Phase with GTA West DI-r Project
  - GTA West Pilot Sites: Hospital for Sick Children's, St. Joseph's Health Centre (Toronto), and William Osler Health System
  - Creation of pilot site local terminology maps to the ON DI Terminology Set
- Preparations for ON Local Mapping
  - Each local dictionary will be mapped to the Ontario Diagnostic Imaging Terminology Set

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Canadian Healthcare Technology Magazine April 2012

http://www.canhealth.com/current%20issue.html#12aprstory2

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How can I learn more about SNOMED CT® and its implementation in Canada?

- Visit *Infoway*'s Standards Collaborative at:
  https://www.infoway-inforoute.ca/lang-en/standards-collaborative

- You can join the Standards Collaborative Working Group (SCWG) 9 – Terminology Representation and Services. SNOMED CT and implementation activities in Canada See *Infoway* website at: http://forums.infoway-inforoute.ca/TSCWG/

- You can join the Standards Collaborative Working Group (SCWG) 10 – Diagnostic Imaging. SNOMED CT and implementation activities in Canada See *Infoway* website at: http://forums.infoway-inforoute.ca/SCWG10D/

- SNOMED CT in Use:
  https://www.infoway-inforoute.ca/standards-collaborative/snomed-ctr/snomed-ct-in-use

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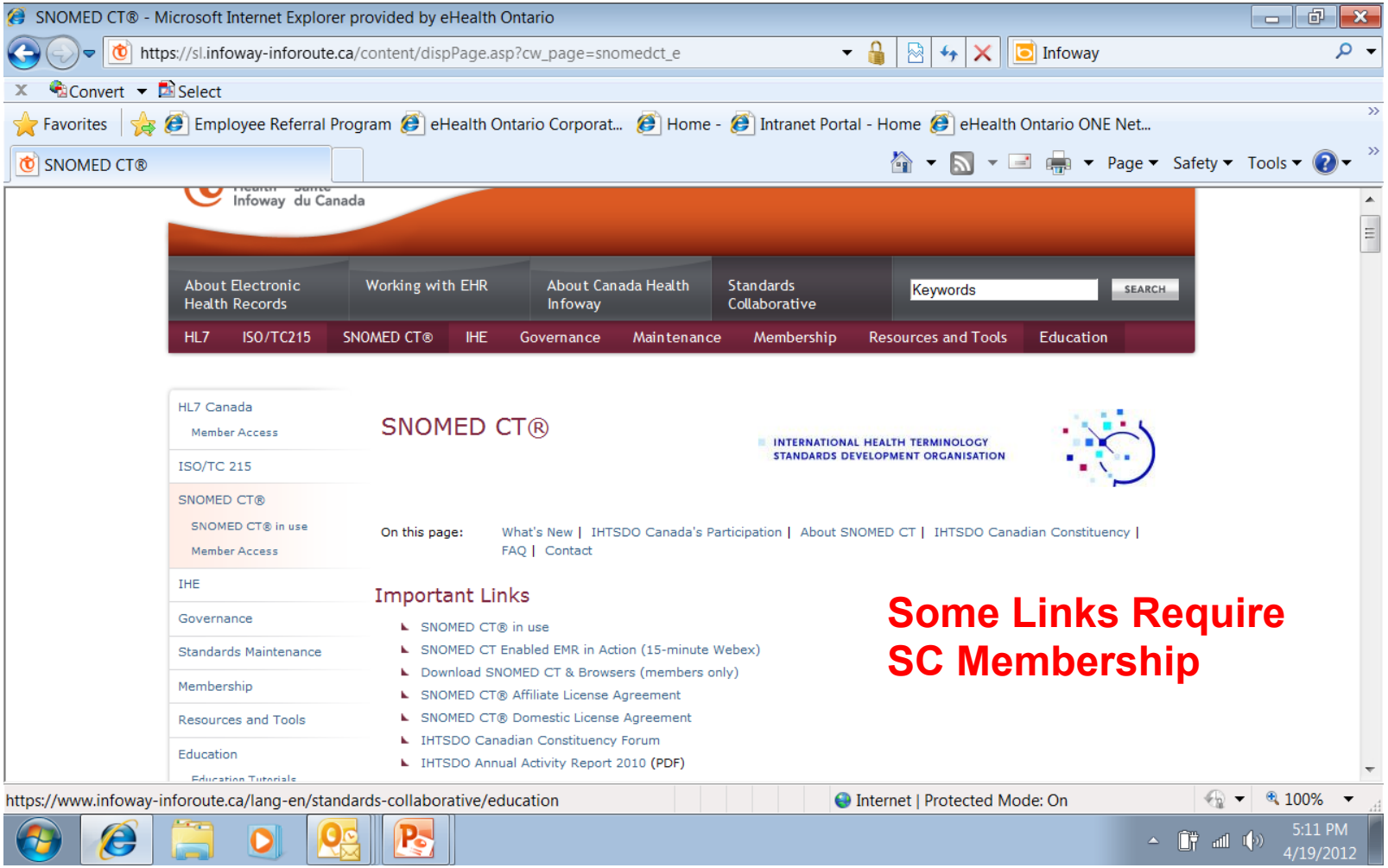
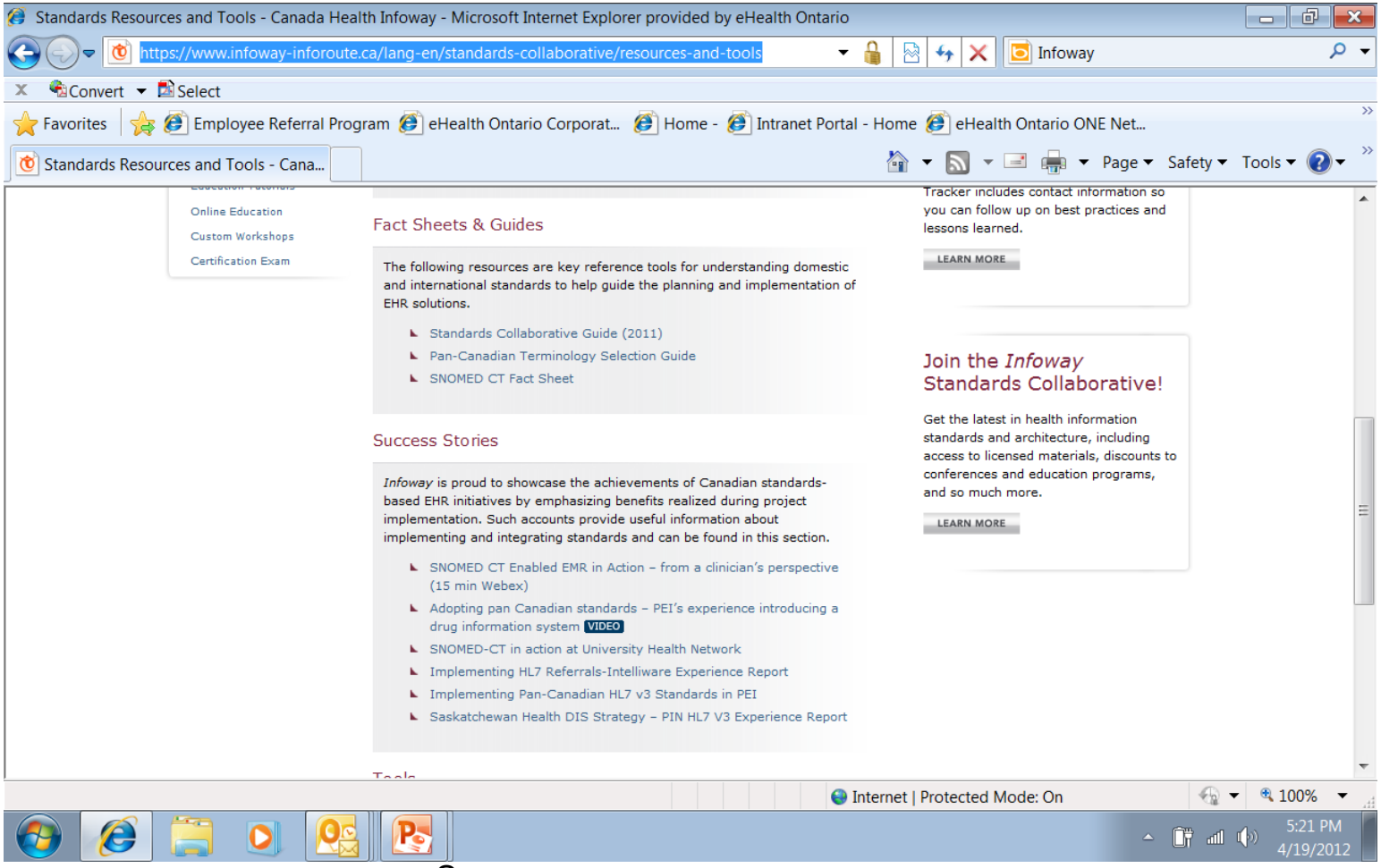
SNOMED CT® Important Links



Source: https://sl.infoway-inforoute.ca/content/dispPage.asp?cw_page=snomedct_e

Tools & Resources



Source: https://www.infoway-inforoute.ca/lang-en/standards-collaborative/resources-and-tools

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Additional Information

Additional SCT Resources

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