At eHealth Ontario we are building new health care IT systems and connecting existing ones that allow clinicians to access secure, accurate and comprehensive patient information quickly and efficiently. This saves valuable time and money, and increases the quality and safety of care for Ontarians.

One of the ways we are transforming health care is by developing interoperability standards.
Why standards matter

Computer systems need common information standards to ‘talk’ to one another;

Without consistent and well-governed standards, building and sustaining a provincial EHR is not possible.

Our approach

Ontario’s health sector is a complex information technology environment comprising numerous assets and capabilities.

With Ontario’s large population and diverse geography, and its range of health care clinicians, there are many opportunities and challenges associated with governing, leading, and implementing change and adoption.

To set the overarching framework for collaboration and communication among stakeholders participating in creating EHR solutions, we launched Ontario’s eHealth Blueprint in 2011.

The blueprint establishes a foundation for developing solutions based in part on a set of common operating standards. It allows health care developers to build systems that can talk to each other and enables the many different information systems currently in use by health care clinicians to securely exchange and access patient information.

Interoperability: The ability of two or more systems to exchange information and use the information that has been exchanged.

SNOMED CT®: Systematized Nomenclature of Medicine – Clinical Terms

A standardized, multilingual vocabulary of clinical terminology used by physicians and other health care decision makers for the electronic exchange of clinical health information.

Currently, SNOMED CT contains over 330,000 medical concepts, divided into categories that include: body structure, clinical findings, procedures, and pharmaceutical/therapeutic products.

LOINC®: Logical Observation Identifiers Names and Codes

A standard for identifying medical laboratory observations for the electronic exchange of clinical health information. LOINC applies names and identifiers to more than 58,000 medical items that can be kept in an EHR.

HL7 Messaging: Health Level Seven

A standard message format for messages, HL7 is one of the most widely used application data standards in the IT industry.

It is the preferred standard to make information flow from one computer to another within and between health care facilities.

HL7 CDA: Clinical Document Architecture

The HL7 CDA defines the structure (e.g., the document sections and sub-sections) of clinical documents such as discharge summaries and progress notes.

CDA-based documents can include text, images and other types of multimedia.


Interoperability: The ability of two or more systems to exchange information and use the information that has been exchanged.
eHealth Ontario
Standards Program

Establishing interoperability standards for Ontario is a collaborative effort led by our standards program.

The program consists of a team of professionals responsible for adapting, implementing and maintaining interoperability standards that support eHealth Ontario projects.

The team provides expertise in Ontario EHR interoperability standards, which are primarily based on four national and international standards – SNOMED CT®, LOINC®, HL7 Messaging and Clinical Document Architecture.

Much of the standards team’s work centres on working with interoperability standards to ensure information sent between clinicians and across organizations is consistent. The goal is to help clinicians – say what they mean, and mean what they say – when electronically communicating vital information about a patient.

Our standard lifecycle approach

All eHealth Ontario standards are supported on an ongoing lifecycle basis, meaning that the standards team continues to develop and maintain existing standards as new product versions and releases are introduced.

When a new clinical or technical need for an existing standard is identified, the information is captured and fed into the appropriate point in the standard’s lifecycle. This allows the standards and the systems they support to evolve, and provides new benefits to users.

Need Identification and Business Definition

Options Research and Analysis

Solutions Development

Testing Pilot

Implementation

Conformance

Maintenance and Support

Training and Education
How we work with you – our stakeholders

To make certain EHR interoperability standards reflect current business and clinical needs and support widespread adoption, we work with an extensive array of stakeholders which includes clinicians, IT developers, vendors, other government agencies, and regulatory colleges.

This approach ensures stakeholder input on how standards in Ontario are developed and delivered.

In January 2012, we established a two-tiered governance structure for Ontario EHR interoperability standards – bringing stakeholders together to make consensus-based decisions about creating and adopting standards-based products and services. Governance committees are involved at every stage throughout the standard’s lifecycle – from development right through to maintenance.

The first tier of the governance structure is our strategic committee. This group’s work revolves around making certain that resources are used efficiently – that initiatives across different government agencies are not duplicated. The goal is to ensure standards products and services provide optimal value to clinicians and patients on an ongoing basis.

The business and technical committee comprises the second tier of governance. This committee works to ensure standards meet business and technical requirements.

The standards program works with as many of you – members of Ontario’s health care community – as possible to obtain your input in developing standards. We do this through invitations to participate in projects upon their inception, as well as through our open reviews which we hold whenever we get close to publishing new EHR interoperability standards.

Helping you adopt interoperability standards

Adopting standards is challenging. But without them, our EHR systems cannot communicate. Our task is to make standards adoption manageable, valuable and beneficial.

This is why we are so focused on collaborating with other agencies, vendors and clinicians, and championing best practices in standards adoption.

For example, in Ontario, numerous organizations (e.g. the Ministry of Health and Long-Term Care, Cancer Care Ontario, Ontario Telemedicine Network, etc.) play vital roles in funding and delivering health care. To create an interoperable EHR, all stakeholders must agree to adopt the same standards.

We work with these organizations to make sure the appropriate standards are included in funding and contractual agreements for EHR systems’ procurements. This helps ensure that all organizations involved in procuring provincial systems will be able to develop solutions that are able to exchange relevant information pertaining to the whole patient view – not fragmented bits of disparate information.

Nationally, we collaborate in consensus-building processes with an array of standards development and management organizations to ensure Ontario’s requirements are recognized, understood and realized in standards. We also observe and monitor the national and international eHealth landscapes for trends and developments that could prove helpful for Ontario.

<table>
<thead>
<tr>
<th>Our services</th>
<th>How they aid adoption</th>
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<tbody>
<tr>
<td>Stakeholder</td>
<td>Leads to higher-quality standards as well as support from clinicians in the field who</td>
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<tr>
<td>engagement</td>
<td>contributed to their development</td>
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<tr>
<td>Adopt/adapt/develop</td>
<td>Re-purposing existing pan-Canadian and international standards decreases your learning</td>
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<tr>
<td></td>
<td>curve as processes and procedures remain constant. Also encourages software vendors</td>
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<td></td>
<td>to develop solutions relevant to Ontario in a faster, more cost-effective manner</td>
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<tr>
<td>Conformance</td>
<td>Ensures interoperability has been achieved by testing the ability of the systems to</td>
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<tr>
<td></td>
<td>exchange information</td>
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<tr>
<td>Maintenance</td>
<td>Ensures standards remain current to meet stakeholders’ evolving clinical and technical</td>
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<tr>
<td>Education and</td>
<td>Provides clinicians, vendors and others with the information and skills they need to</td>
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<tr>
<td>training</td>
<td>properly adopt standards</td>
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Behind the scenes – how our methodologies keep us on track

To keep us appropriately focused on setting priorities to support Ontario’s EHR, our internal framework is based on a centre of excellence model. This framework involves four methodologies – which are key to ensuring that the products and services we provide are valuable to you:

Centre of excellence framework: Metrics for each methodology help us measure a range of objective criteria (e.g. response time for requests for standards information) and subjective criteria (e.g. client satisfaction with education and training).

Here’s how they guide our work:

**Governance**
- Two committees, composed of representatives from over 20 types of health care organizations with vested interests in standards adoption, are now established: – the strategic committee; and – the business and technical committee;
- These committees work together to provide the breadth and depth of input required to establish and sustain Ontario EHR interoperability standards;
- The standards team provides the secretariat and subject matter expertise for these committees. Collectively, the secretariat and committees establish metrics to measure our effectiveness in providing standards-based products and services.

**Program/project support**
- Standards decisions are incorporated in all eHealth Ontario initiatives through defined, rigorous methodologies;
- Our dedicated standards experts work to ensure eHealth Ontario’s systems are interoperable; and
- All standards are supported throughout the lifecycle of the EHR products they are used in – from conceptual design to ongoing maintenance.

**Guidance**
- We provide ongoing direction on existing and in-development provincial, national and international standards that can be used here in Ontario;
- We use templates that help internal and external stakeholders select the most appropriate standard for their particular needs; and
- We promote, communicate, educate and update stakeholders on the need for an interoperable EHR, as well as the progress we are making on delivering standards products and services.

**Shared learning**
- We provide self-directed education and training;
- We publish comprehensive information about Ontario EHR interoperability specifications, standards-based educational resources, and implementation experiences through our website;
- We facilitate access to pan-Canadian and international EHR interoperability standards.
**How patients benefit**

EHR solutions are already having a positive impact on patient care across the province. Patients will notice a difference in their health care experience through:

- Improved care through safer, more accurate and complete information shared among all health care clinicians;
- Reduced wait times for appointments, procedures and access to community care facilities;
- Reduced wait times for laboratory test results and clinical diagnosis;
- Improved security of confidential health information through modern, encrypted data protection systems.

**In summary**

Interoperability standards help you — our stakeholders — electronically communicate vital patient information. Our goal is to establish these standards and drive their adoption and implementation.

To ensure Ontario EHR interoperability standards reflect current business and clinical needs and support widespread adoption, we work regularly and collegially with others — from clinicians to IT developers, vendors, government agencies and regulatory colleges.

Our work is ongoing — to ensure the standards needs of eHealth Ontario projects. This means existing standards continue to be developed and maintained as new versions and releases of the EHR solutions are needed. Our approach allows standards products and services to evolve, providing new benefits to users.

We actively share and promote information about standards products and services and how they improve the way patients receive care.

Finally to drive standards adoption we provide services ranging from publications, maintenance requests, education and training, as well as ongoing advice as to how to implement standards.

Interested in learning more?
Visit us at ehealthontario.on.ca/en/standards
Check back often, we update our site frequently.
Comments or questions? Contact us anytime at ehealthstandards@ehealthontario.on.ca