



# EHRs Blueprint

## AN ENTERPRISE ARCHITECTURE FOR SHARING ELECTRONIC HEALTH RECORDS

**WHAT IS CANADA HEALTH INFOWAY?** CANADA HEALTH INFOWAY INC. INVESTS WITH PUBLIC SECTOR PARTNERS ACROSS CANADA TO IMPLEMENT AND REUSE COMPATIBLE HEALTH INFORMATION SYSTEMS THAT SUPPORT A SAFER, MORE EFFICIENT HEALTHCARE SYSTEM. **INFOWAY** IS AN INDEPENDENT, NOT-FOR-PROFIT ORGANIZATION WHOSE MEMBERS ARE CANADA'S 14 FEDERAL, PROVINCIAL AND TERRITORIAL DEPUTY MINISTERS OF HEALTH.

### EHRs BLUEPRINT

The Electronic Health Record Solution (EHRs) Blueprint is a technology framework that enables the appropriate sharing of clinically relevant patient health information between health services providers across care settings and disciplines in Canada.

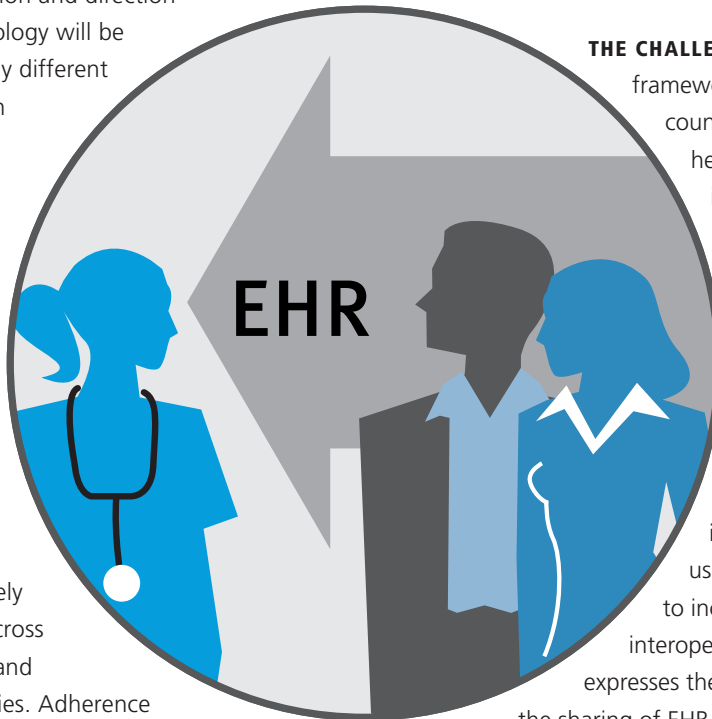
The Blueprint provides a vision and direction for how information technology will be employed to allow the many different information systems used in health care to interoperate: allowing a health service provider to access information captured by other healthcare providers for the same patient/client.

**BACKGROUND:** The EHRs Blueprint was originally developed as a high level vision for how EHR information could be securely and appropriately shared across Canada using information and communications technologies. Adherence with the Blueprint is one of the key criteria for determining the eligibility of proposals for *Infoway* investment, ensuring that approved projects contribute to the goal of providing

electronic health records for 50% of Canadians by the end of 2009.

The Blueprint has significantly evolved since the initial version, providing better definition of how standards-based technology can be used to support sharing of EHR information. The current version also integrates valuable learning from:

- other projects from *Infoway's* Infostructure program, notably the Privacy Security Architecture and Clinical Terminology Integration projects;
- new *Infoway* investment programs in Telehealth and Public Health Surveillance; and
- engagement with various stakeholders across the country.



**THE CHALLENGE:** In order to provide a comprehensive framework for sharing health information across the country, the Blueprint must illustrate how the health enterprise in Canada can cost-effectively integrate the approximately 40,000 existing health information systems in use across the country, while at the same time providing the opportunity for incorporating new and enhanced information systems and capabilities in support of the provision of care.

**THE SOLUTION:** The Blueprint provides an information systems architecture that can be used consistently by *Infoway* sponsored projects to incrementally and progressively implement interoperable EHR Solutions. This architecture expresses the current and anticipated requirements for the sharing of EHR information in the healthcare enterprise across Canada. It provides a set of design patterns for building the supporting EHR Infostructure and for interfacing the many applications at the point of service to that infostructure.

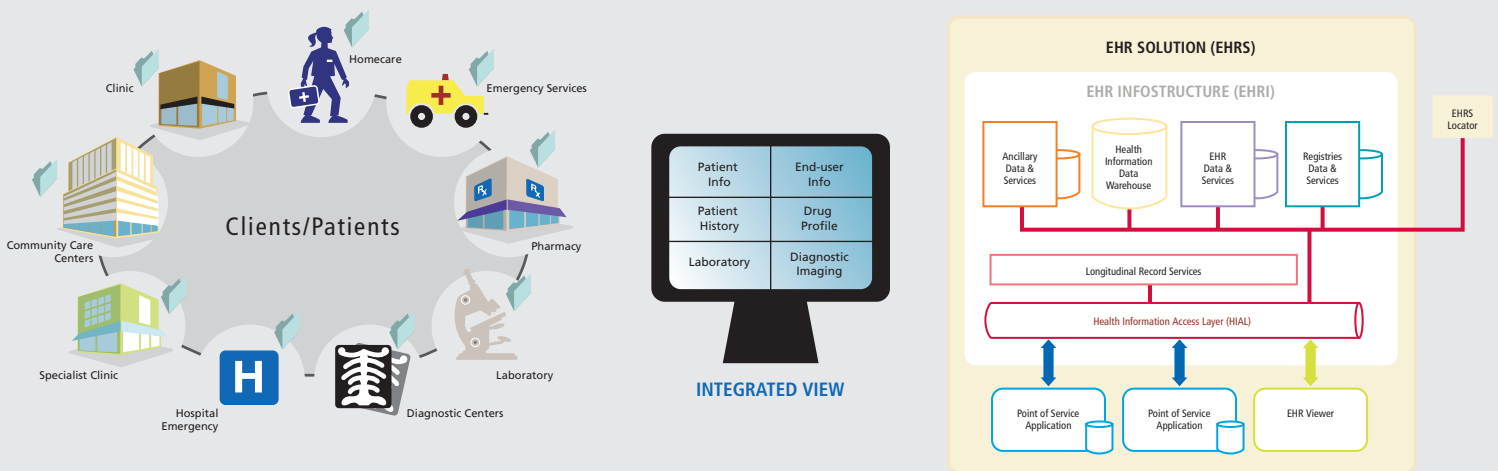
1. EHRS Blueprint Evolution
2. Standards Collaboration Process
3. Artefacts Repository
4. Privacy Security Architecture
5. Clinical Terminology Integration

**HOW IT WORKS**

The Blueprint is an enterprise systems architecture that uses the well accepted principles of a Services Oriented Architecture to enable the applications at the many points of service to use one standards-based set of interfaces to exchange information through a shared EHR Infostructure (EHRI). Each jurisdiction in Canada will operate one or more instances of this standardized infostructure.

The Blueprint describes how each point of service application can connect to the shared infostructure using a common set of interface standards, rather than connecting to each other directly. These interfaces are handled by the Health Information

Access Layer (HIAL) which provides common services to support, for example, authorization and authentication of users and logging and auditing of all accesses. Point of service applications send distinct information about clients/patients to a set of shared information repositories that are managed by the Longitudinal Record Services. The applications (or an integrated viewer) can then request EHR information from the Infostructure using the same mechanisms, securely accessing relevant EHR information captured by many different health disciplines, in many different care settings, and potentially in many jurisdictions across Canada. Each infostructure can communicate with other infostructures, collaborating to deliver clinically relevant information where and when it is needed, regardless of where it was originally captured.



**EHRS BLUEPRINT BENEFITS**

**INTEGRATED VIEW**

Each health service provider has an integrated view of relevant and timely clinical information for a client/patient, regardless of when, where, or how it was captured electronically.

**SECURE AND APPROPRIATE SHARING**

The Infostructure provides for secure transmission and storage of health information, uniformly supporting confidentiality requirements and providing for appropriate use.

**EFFECTIVE, SCALABLE, ADAPTABLE**

The Blueprint provides a cost effective method for integrating EHR applications, leveraging existing information systems while providing a scalable, extensible, and adaptive base for new and better EHR capabilities.

**Want more information?**

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