

# **The Ontario Laboratories Information System (OLIS)**

*A strategic change initiative for e-Health in Ontario*

***Waterloo Smarter Health Seminar Series  
University of Waterloo  
March 22, 2006***

# Agenda

1. OLIS and e-Health - setting the scene
2. Profile of Laboratory Services in Ontario
3. What is OLIS?
4. OLIS as a catalyst for change
5. Change Management Issues and risks

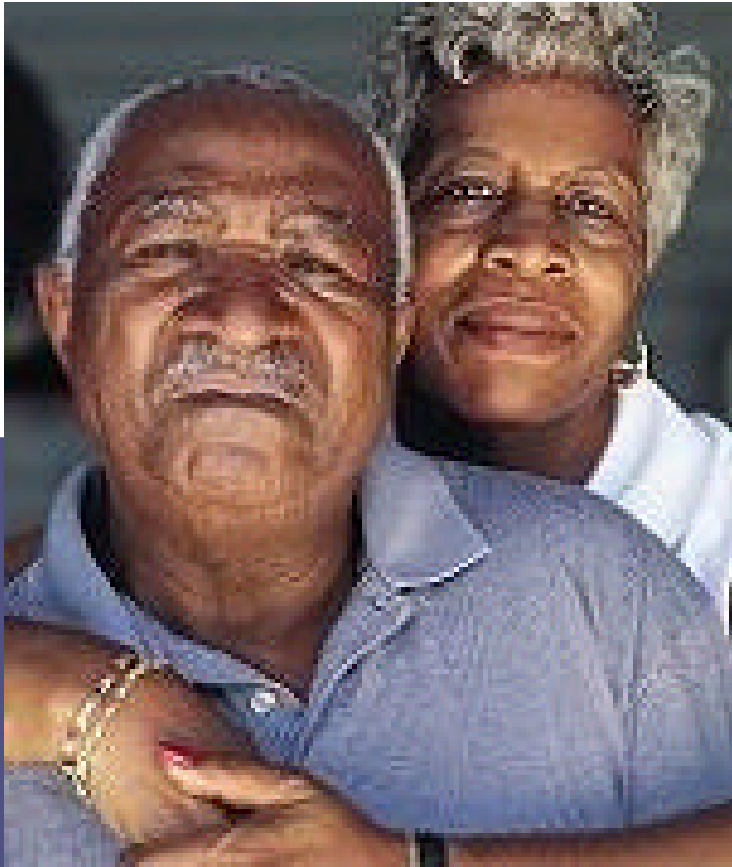
# A Giant Leap Forward is Needed in Healthcare



**We've Come a Long Way ...  
But There is More to do**



# e-Health Means Better Care

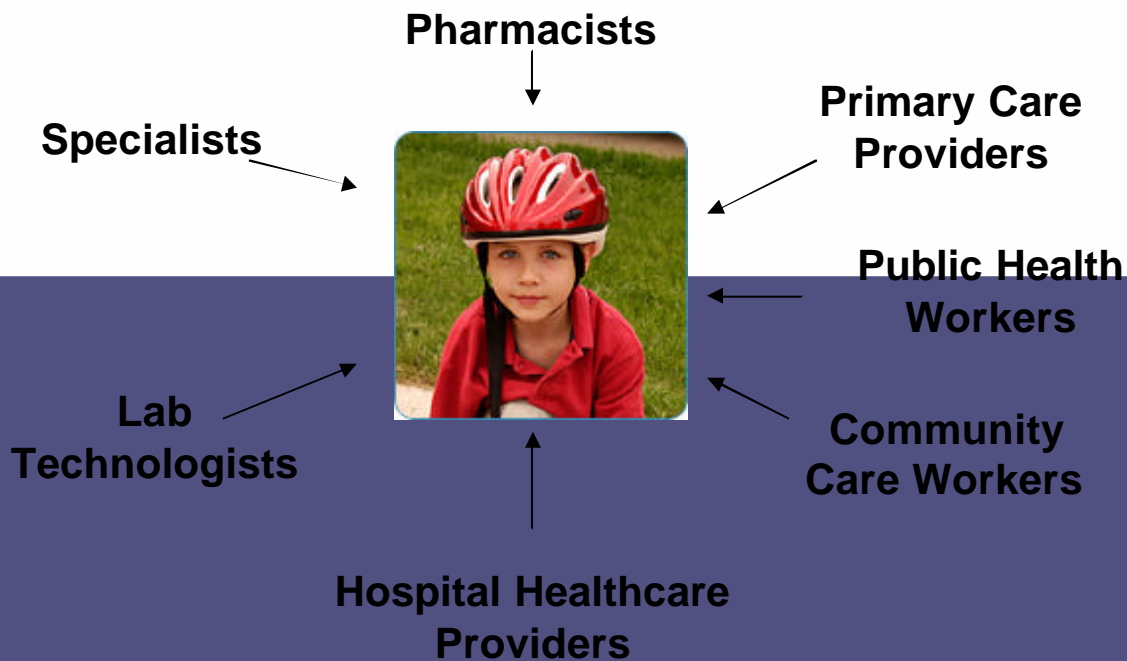


## The Benefits of e-Health

- Improved diagnostic and treatment capabilities
- Reduced risk of error
- Smarter spending of healthcare dollars
- Accountability tools
- Improved public health and system management
- Life will be easier for providers
- Life will be easier for patients

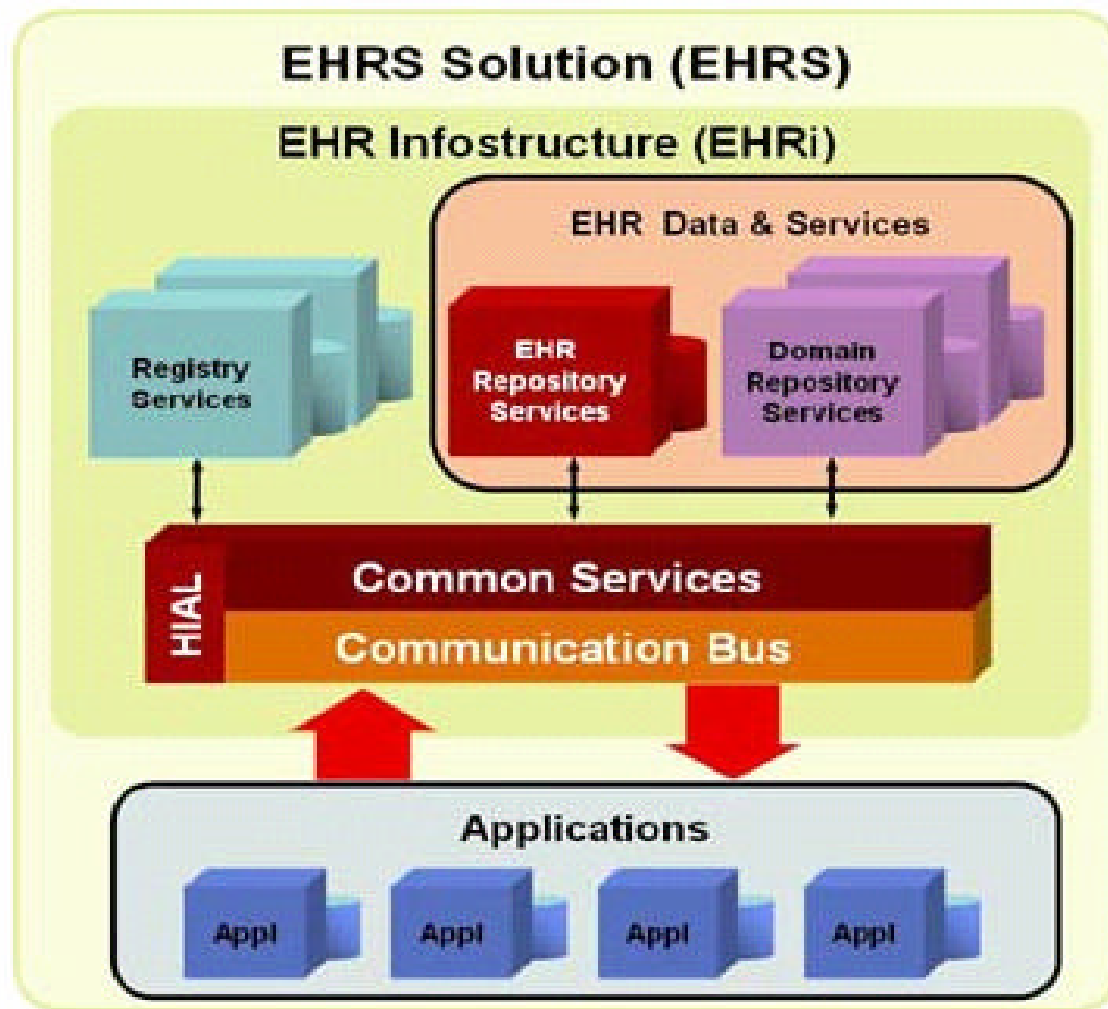
# What is e-Health?

Ontario's e-Health Strategy is about achieving better health outcomes by transforming health systems and business practices through the investment in and more comprehensive use of information and information technology.

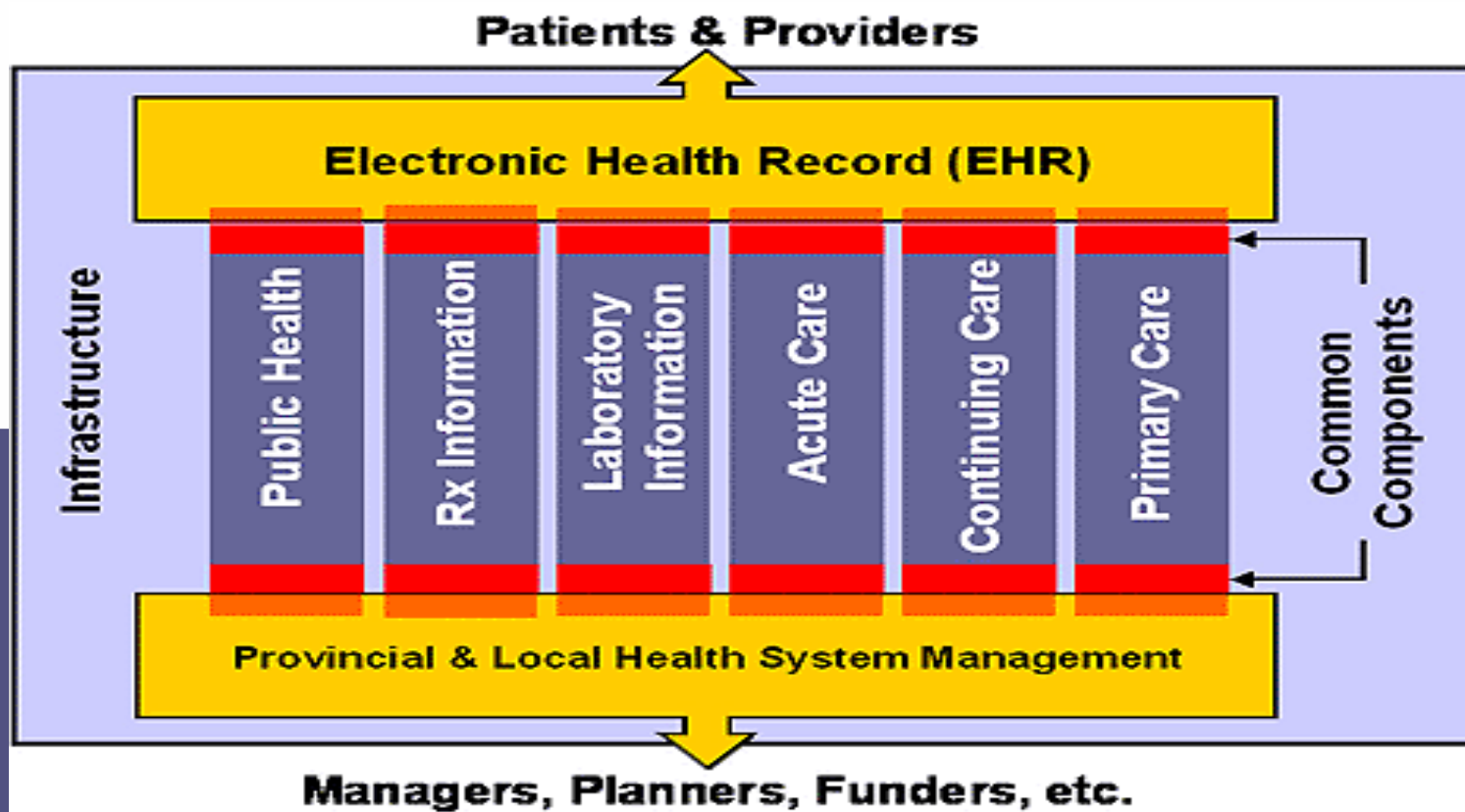


*e-Health is about connecting providers and giving them the tools and information they need to enhance patient care.*

# Ontario Alignment with EHR Architecture



# Ontario's EHR Conceptual Model



Note: Diagram illustrates examples of Ontario initiatives that map to Infoway's architecture and is not intended to be an inclusive list.

# Laboratory Services in Ontario

- Over 200 million tests a year are performed
- Approximately 40,000 people are involved
- More than 200 hospital, community and public health laboratories perform testing
- Service can be accessed in the community in doctors offices and at 377 patient service centres.
- Cost of services exceeds \$1 billion annually



# Laboratory Services in Ontario cont'd

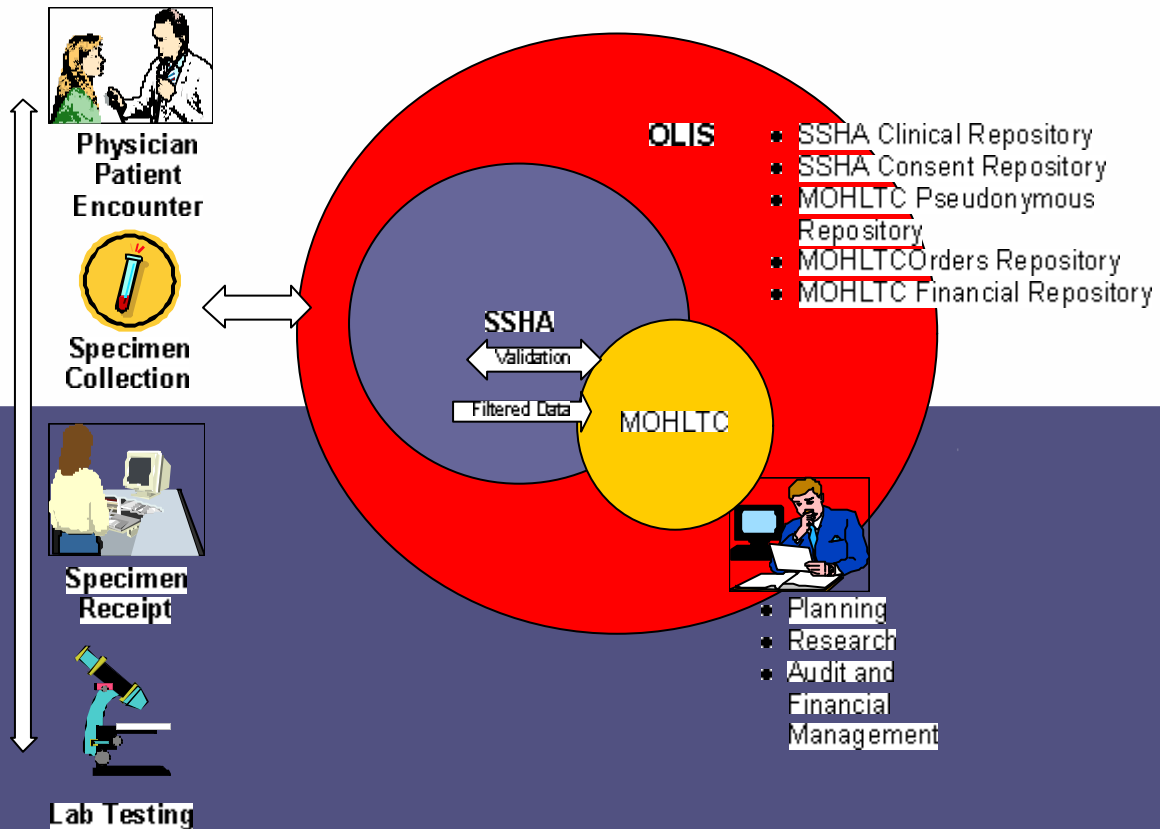
- Business processes and information management practices vary extensively
- Information flow is
  - Manual
  - Electronic using vendor supported software applications
  - Electronic using customized, proprietary software applications
  - Combination of manual and electronic
- Sharing information electronically is expensive and difficult
  - Lack of standardization of message format and content
  - Implementation of closed systems
  - Hybrid paper/electronic environments

# OLIS – What is it?

- A single information system allowing all laboratory test information to be electronically exchanged amongst authorized practitioners and lab service providers in Ontario.
- A source of system and program management information for the ongoing enhancement of lab services
- A key component of Ontario's electronic health record strategy

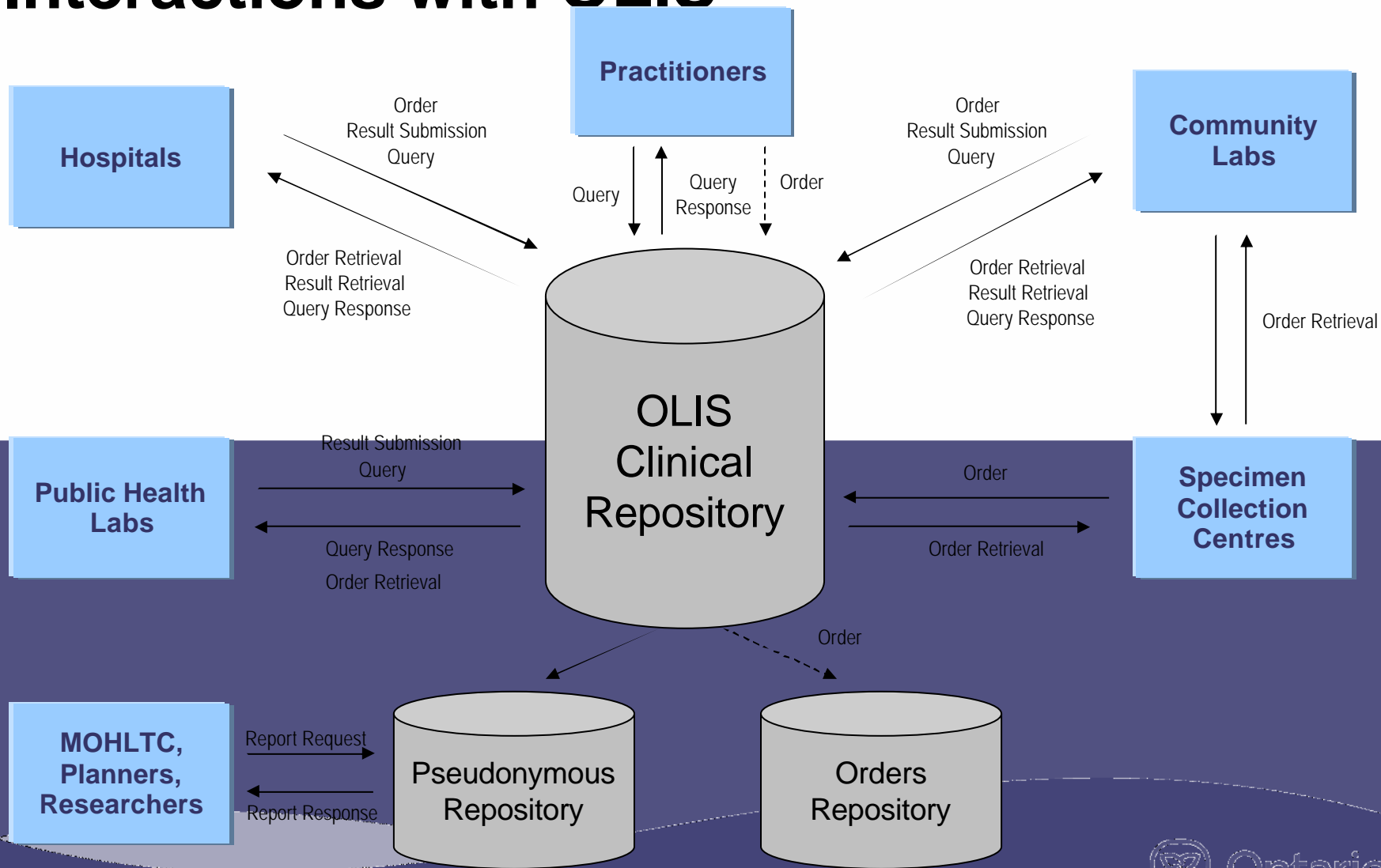
# OLIS Business Processes

## Laboratory Services Workflow



from all laboratories across Ontario; and secondary repositories for health system management, planning & research

# Interactions with OLIS



# How OLIS benefits align with e-Health benefits

- Improved Diagnosis and Treatment Capabilities
  - timely access to consolidated patient test result information regardless of where the tests were performed
  - access to relevant historical patient information by emergency room staff
- Improved Patient Care
  - enable better co-ordination of care by multiple practitioners
  - robust protection of a patient's identifiable data
- Improved Provider Access
  - enable integration of lab information with electronic medical records
  - provide easy access to decision support and “best practices” information

# How OLIS benefits align with e-Health benefits

- Decreased risk of error
  - enables the elimination of paper requisitions and reports
  - provides a standard vocabulary for laboratory orders and results
- Enhanced accountability and improved public health and system management
- Smarter spending of healthcare dollars

# History and Current Status

- OLIS Clinical Repository ready to receive information  
March 31<sup>st</sup>, 2006
- Focus shifting to adoption and deployment
- Currently working with 6 Foundation Adopters
  - 4 hospitals
  - 2 community laboratories
- OLIS is the most advanced of Canada Health Infoway's jurisdictional laboratory information system projects, however, there is a price to pay for being first

# OLIS as a Catalyst for Change

- **OLIS will influence business practices among lab service providers**
  - Reduce the cost of lab to lab and lab to client electronic information exchange
  - Facilitate the introduction of electronic ordering and the elimination of costly paper reports
  - Support a variety of business and technology models
- **OLIS will enhance adoption of an electronic patient record**
  - The electronic transmission of lab results is a priority and an essential component of any clinical management system
  - Practitioners want tools to help them order the right test on the right person at the right time
- **OLIS will drive the implementation of key building blocks for e-Health**
  - Conformance to standards
  - Active use of privacy and consent management processes
  - Consistent, validated patient, practitioner and facility identification
  - Widespread use of the SSHA secure network infrastructure
  - Process for registration and enrollment of users
  - Integration with other e-health initiatives



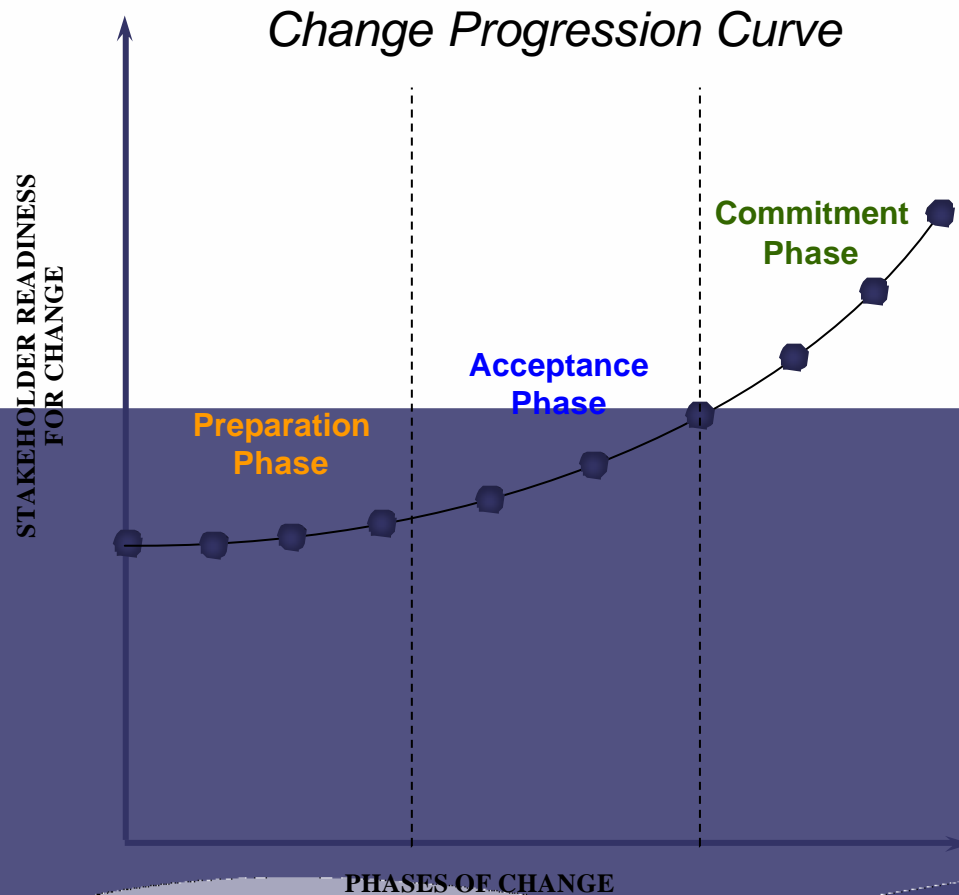
# Deployment will be Challenging and Complex

- Multiple deployments will occur simultaneously in different stakeholder environments
  - Stakeholder experience will shape ongoing system development
  - OLIS must keep pace and integrate with the changing healthcare and e-Health environments
- 
- Deployment activities will coexist with ongoing OLIS development phases and across multiple releases
  - CHI has recognized and funded OLIS adoption because the lessons learned from the implementation experience will be valuable to other jurisdictions

# Change Management Challenges

- Project history
- Unpredictable environment
- Scope and scale of initiative
- Stakeholder commitment
- Resources to support multi-year implementation

# Change Management activities will prepare stakeholders for adoption



## Commitment to Change

- The healthcare community is a multi-stakeholder environment that is subject to change pressures; stakeholders may become overwhelmed and change fatigue may become an issue
- Implementing new technologies in the health care environment without any support for change management represents a risk to success
- A strong change management plan will be needed to support OLIS and move stakeholders through the natural path of transition
- Ongoing communications and feedback will be key to engaging OLIS stakeholders and will support stakeholder progression up the curve

# Change Management Activities To Date

## OLIS Change Management Planning Project:

- Leading practices review
- Communications strategy
- Stakeholder impact assessment
- Foundation adopters selected
- Detailed adoption strategy and plan

# Change Management Issues and Concerns

- Lag time between the start of development and planning for Change Management
- Making OLIS real to stakeholders
- Engaging vendors in discussions about province-wide business model
- Emerging stakeholder issues requiring ongoing system development
  - Privacy (Consent and Blocking)
  - Patient and Practitioner Identifiers
  - User Identity Management
  - User expectation of web functionality
- Impact of OLIS on existing business practices

# Critical Success Factors

- The right *GOVERNANCE* model for ongoing operations
- Stakeholder engagement and *COMMITMENT* to OLIS
- *ALIGNMENT* with other EHR components and the e-Health agenda
- Enforced *STANDARDIZATION*
- *CONSENSUS* on resolution of major issues related to :
  - Privacy
  - Business processes
  - Multiple standards
  - Stakeholder technical environments
- Dedicated *RESOURCES*