eHealth in Ontario

Presentation for the Information Technology Association of Canada's Consultation Breakfast

Gail Paech - Assistant Deputy Minister, eHealth Program, MOHLTC

Doug Tessier - Director, eHealth Strategy, MOHLTC

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Overview

- **Update on Ontario's eHealth Strategy**

- **Immediate Priorities:**

  - ➤ **Ontario Diabetes Registry**

  - ➤ **ePrescribing and Drug Information System**

  - ➤ **Physician Strategy**

  - ➤ **Portals / Integrated Clinical View**

- **eHealth Portal Demonstration**

- **Implementation & Adoption**

- **Introduction to Integration Services**

- **Procurement**

- **Discussion**

Update on Ontario's eHealth Strategy

eHealth Strategy

Objectives:

- eHealth is about improved health, health care, patient safety and quality of care for Ontarians.

- It is the enabler for improved patient access and care leading to more effective use of health care resources.

eHealth Strategy (cont'd)

Supporting Provincial Priorities:

- *"Help the growing number of Ontarians living with diabetes through a mix of prevention, technology, personal planning and access to specialized resources and health professionals." ***

- *"Create an electronic health record by 2015 and give Ontarians control over the information contained in it." ***

- *"Invest $47 million in 2008-09, growing to $239 million in 2010-11 in eHealth systems such as diagnostic imaging, drug and lab information, and a Diabetes Registry, which will help people with diabetes to actively manage their disease in conjunction with their health care providers." (Budget 2008)*

* Source: *Moving Forward Together, The Ontario Liberal Plan 2007*

eHealth Strategy – Progress to Date

- The Ministry approved a comprehensive, patient-focused eHealth strategy in May 2008.

- A new external governance model to support the objectives of the strategy and support health system transformation and sustainability was approved in September 2008.

- The new governance model addresses the need to expand the eHealth mandate and accelerate the delivery of eHealth initiatives and reflects a closer working partnership will all our health care partners.

- eHealth Ontario is the resulting restructured agency, bringing together, under one banner:
  - Smart Systems for Health Agency (SSHA) – Infrastructure
  - The Ministry of Health and Long-Term Care's eHealth Program – Business Solutions / Strategy / Policy / Architecture

eHealthOntario
Taking Care Everywhere
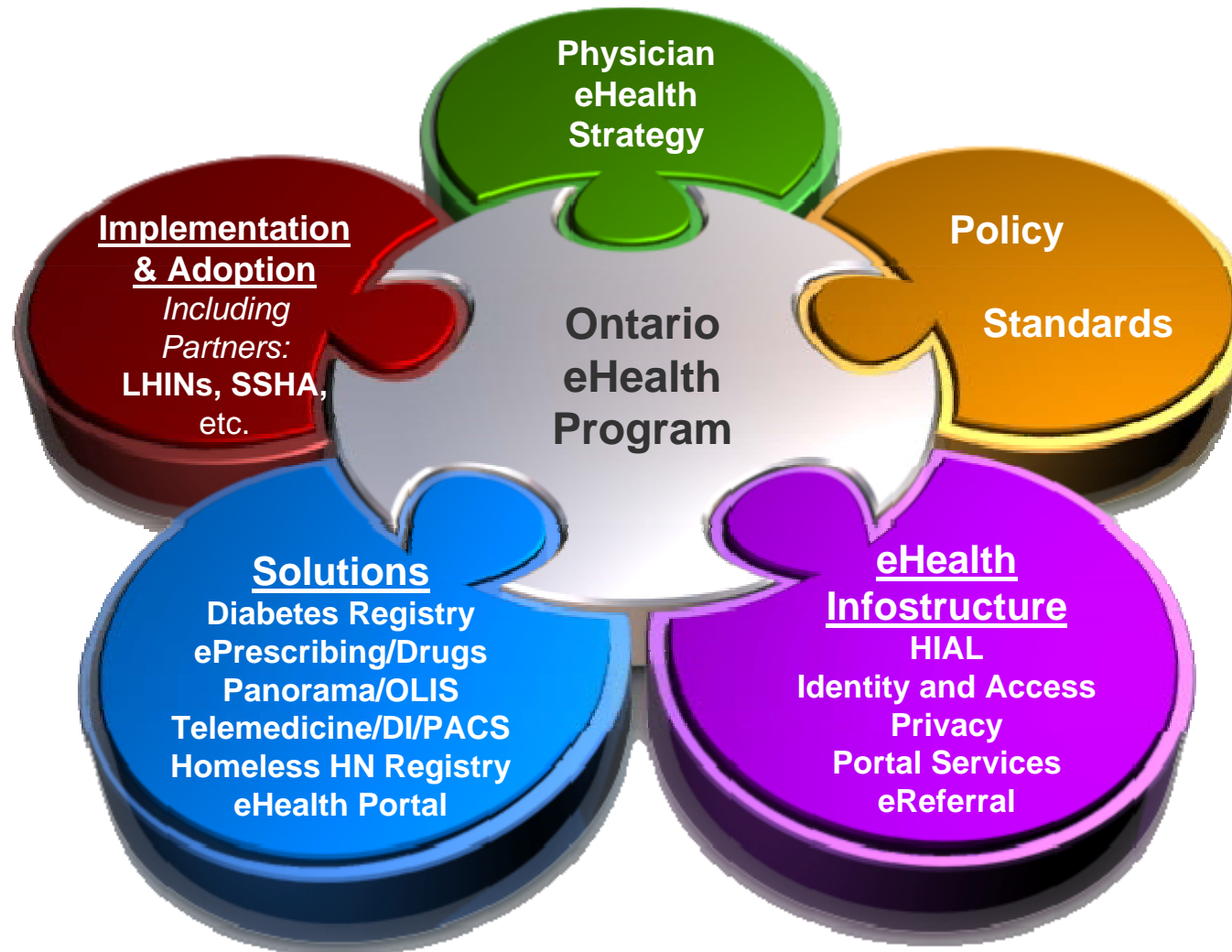
The Role of eHealth Ontario

- **A unified and restructured agency is good news for eHealth:**

    - Shows the government's commitment to eHealth's success.

    - Has clear lines of accountability.

    - Aligns with the Ministry's stewardship approach for overall direction and leadership of the health care system.

    - Helps to address issues facing the health and IT sectors (e.g. procuring IT skills that are in high demand).

    - Builds upon SSHA's core network hosting and secure e-mail services, but will have the flexibility to go beyond what is currently provided (working with Infrastructure Ontario).

    - Ensures that stakeholders participate in decisions (LHINs, Ministry, business, IT, etc.).

    - Participates in the government's gating process to improve project control.

eHealth Ontario – First Steps

- eHealth Ontario has a new Board of Directors selected from the broader health care sector, business and IT:

    - **Dr. Alan Hudson** – **Chair**; Lead, Access to Services / Wait Times, Ministry of Health and Long-Term Care

    - **J. David Livingston** - Board Member; President and CEO, Infrastructure Ontario

    - **Matthew Anderson** - Board Member; CEO, Toronto Central LHIN

    - **Heather Sherrard** - Board Member; Vice-president of Clinical Services, University of Ottawa Heart Institute

    - **Ken Deane** - Board Member; Assistant Deputy Minister, Health System Accountability and Performance Division, Ministry of Health and Long-Term Care

    - **More Board members to come** – The Board will have up to 12 members.

- SSHA and the eHealth Program are in a transition period, but business will continue as usual.

- Details about the restructured agency and a transfer date will be communicated to stakeholders as they are determined.

Immediate Priorities

eHealth Initiatives

Physician eHealth Strategy

Policy

Standards

Implementation & Adoption
Including Partners:
LHINs, SSHA, etc.

Ontario eHealth Program

Solutions
Diabetes Registry
ePrescribing/Drugs
Panorama/OLIS
Telemedicine/DI/PACS
Homeless HN Registry
eHealth Portal

eHealth Infostructure
HIAL
Identity and Access
Privacy
Portal Services
eReferral

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eHealth Strategy - 4 Immediate Priorities

Ontario Diabetes Registry

- Comprehensive tool for diabetes management and self-care

- Accessible to providers, case managers, patients and their families to support health promotion, disease prevention and better care

- Provides information to health planners, LHINs and system stewards to enhance system management

Portals/Integrated Clinical View

- Integrates patient information from different clinical systems – Labs, Drugs, Diagnostic Imaging, Public Health

- Provides a single access point for to securely view a patient's clinical results

- Builds upon current electronic medical record systems in physician offices and EHR repositories

ePrescribing and Drug Info. System

- Provides complete drug history and dispensing information ensuring appropriate prescribing and improved patient safety

- Provides drug interaction tools for providers and ensures accurate and complete information for dispensing

Physician eHealth Strategy

- Broaden and accelerate physician participation

- Support physician office automation and technology adoption

- Build clinical and business value

- Sustain and evolve approaches to support ongoing eHealth participation

Ontario Diabetes Registry

- By the spring of 2009, Ontario will have a Diabetes Registry actively used by patients and physicians to manage diabetic care.

- People with diabetes will be identified on the Diabetes Registry, which can also be expanded to people at risk for diabetes or to other chronic diseases.

- Patients and their families have access to self-monitoring & screening tools, health knowledge and education so that they can record their own results, can better self-manage their own care, and can communicate with their care team.

- Patient observations can be automatically recorded in the Diabetes Registry through the use of handheld and other devices.

- Patient clinical care will be improved when these providers use decision support and care path tools and when patients actively participate in the management of their chronic disease.

- The Ontario Diabetes Registry will build upon previous investments in provincial and local information systems.

The burden of diabetes is significant; however, it can be improved

More People are Developing Diabetes

- The number of Ontarians with diabetes has increased by 69% over the last 10 years and is projected to grow from 900,000 to 1.2 M by 2010
- Specific ethnic and aboriginal populations are experiencing higher rates of diabetes compared to the provincial average

Diabetes is Not Well Managed Across the System

- About half of patients with diabetes have their blood sugar under control
- Fewer people with diabetes in Ontario are receiving recommended care (foot exams, eye exams or regular monitoring of blood glucose) when compared to Canada and other G8 countries

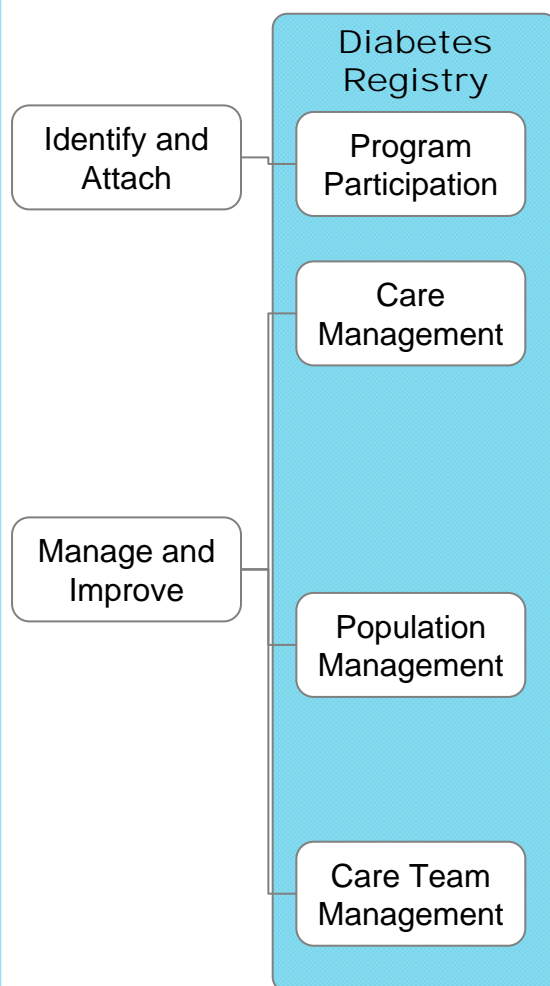## Even Though We Know What to Do

- By following evidenced based care, blood glucose levels (A1C) can be reduced by 1-2% and brought within normal range
- Every 1% drop in A1C is associated with a 14% decrease in the incidence of acute myocardial infarction and a 16% decrease in heart failure rates
- Treatment with proven medications can reduce cardiovascular mortality and reduce costs

The **Ontario Diabetes Strategy** was developed to help the growing number of Ontarians living with diabetes

Sources: Lipscombe 2007a; Lipscombe 2007b; Macaulay 2003; Chowdhury 2003; Hux 2003; OHQC 2008;
Comparison of Models of Primary Health Care in Ontario study; CT Lamont Primary Health Care Research
Centre, 2007 as published in Ontario Health Quality Council 2008 Report; O'Reilly 2006; Turner 1998
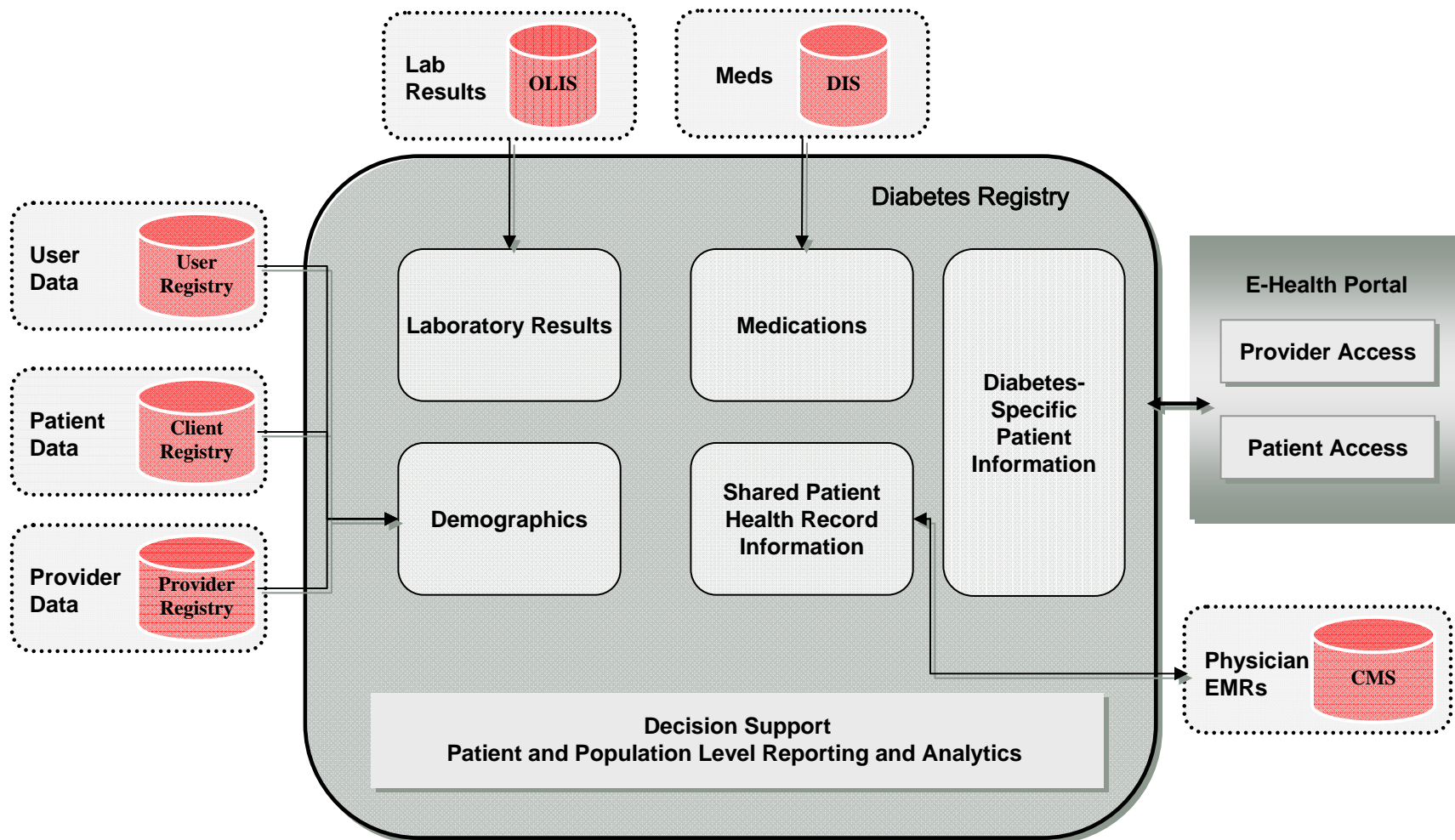
The Ministry's e-Health Strategy has committed to purchase and implement a Diabetes Registry, a population-based diabetes management information system that can expand to be used for other chronic diseases

The Diabetes Registry will:

Identify and Attach

Diabetes Registry
- Program Participation

Manage and Improve
- Care Management
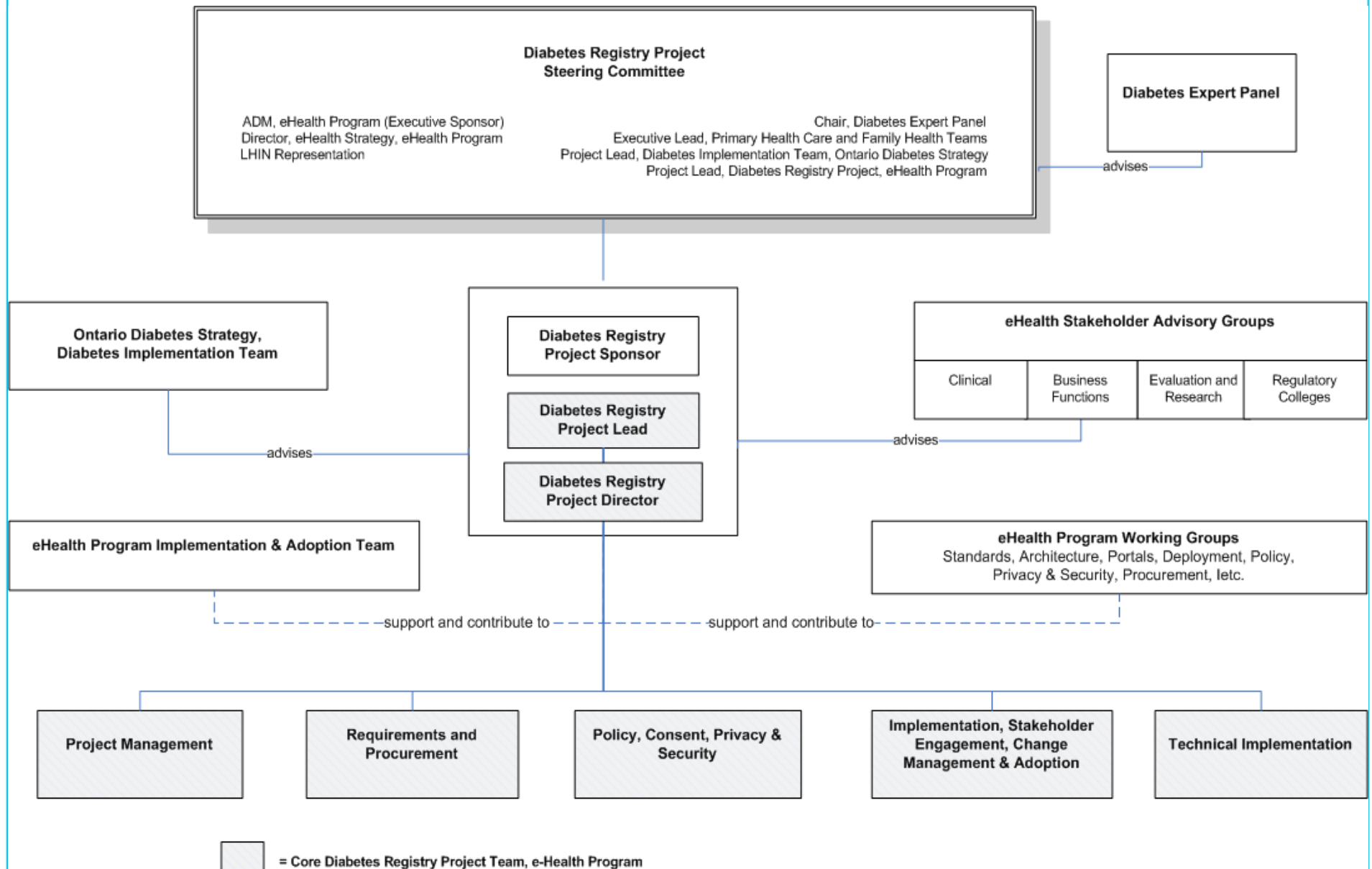- Population Management
- Care Team Management

- Help **identify all Ontarians with diabetes**
- **Identify unattached patients** and facilitate attachment of patients to family health care providers

- Support diabetes management according to **evidence-based guidelines** with reminders and alerts
- **Collect and consolidate key clinical information** to facilitate care planning and collaborative goal setting by designated providers and patients
- Enable **patient self-care** by allowing patients to view their personal health information, as well as, directly enter and share relevant information
- Support **provider-led local, regional and provincial quality improvement** initiatives through the use of population-based performance indicators and dashboards
- Collect information to **support diabetes management incentives payments** for physicians
- Provide population-based information to health planners, LHINs and system stewards to **enhance health system management**
- Support access to diabetes related clinical information **across multiple care settings** to enable collaborative care team management of patients with diabetes

The Diabetes Registry will be presented through an e-Health Portal and leverage multiple data sources

Project Governance

Diabetes Registry Project Steering Committee

ADM, eHealth Program (Executive Sponsor)
Director, eHealth Strategy, eHealth Program
LHIN Representation

Chair, Diabetes Expert Panel
Executive Lead, Primary Health Care and Family Health Teams
Project Lead, Diabetes Implementation Team, Ontario Diabetes Strategy
Project Lead, Diabetes Registry Project, eHealth Program

Diabetes Expert Panel

advises

Ontario Diabetes Strategy, Diabetes Implementation Team

advises

Diabetes Registry Project Sponsor

Diabetes Registry Project Lead

Diabetes Registry Project Director

advises

eHealth Stakeholder Advisory Groups

Clinical	Business Functions	Evaluation and Research	Regulatory Colleges

eHealth Program Implementation & Adoption Team

eHealth Program Working Groups
Standards, Architecture, Portals, Deployment, Policy, Privacy & Security, Procurement, Ietc.

-support and contribute to - - - - - - - - - - - - support and contribute to - - - - - - -

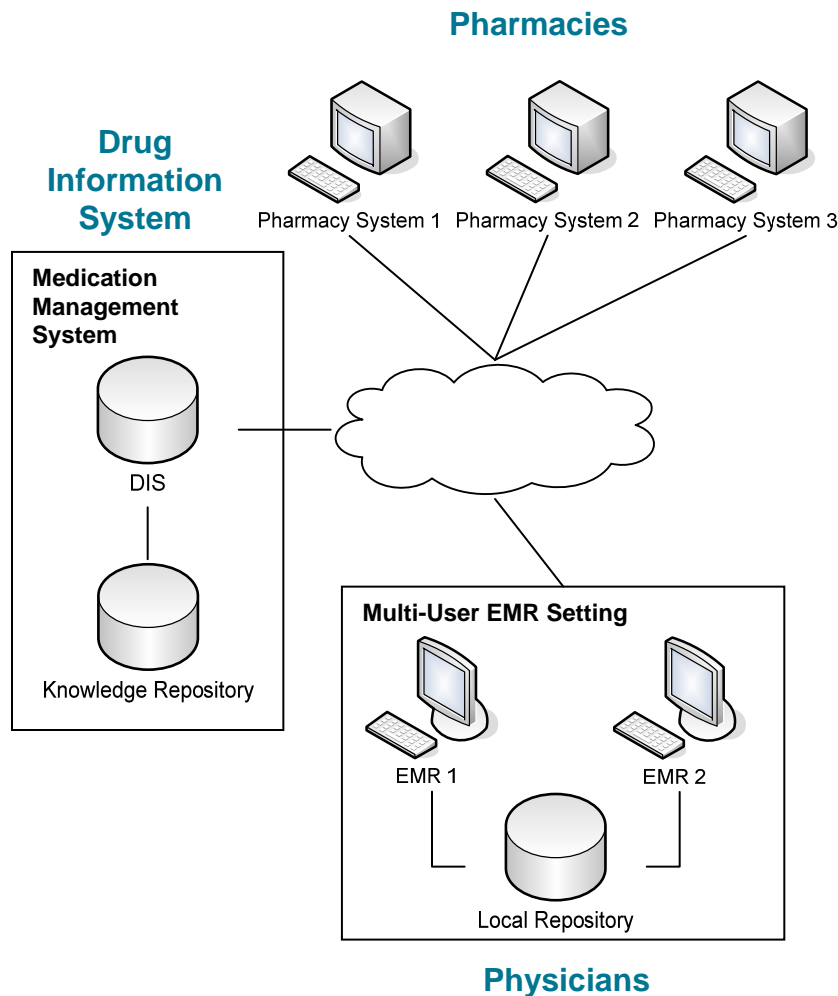| Project Management	Requirements and Procurement	Policy, Consent, Privacy & Security	Implementation, Stakeholder Engagement, Change Management & Adoption	Technical Implementation

= Core Diabetes Registry Project Team, e-Health Program

ePrescribing and Drug Information System

- ePrescribing initiatives will build on investments in Physician eHealth to provide local and regional implementations improving care and service for Ontarians.

    - Patients will have a comprehensive medication history that is shareable among their care team and their families and that they can use for self-management and their providers can use to better manage their health.

    - The Drug Information System and the facility for ePrescribing ensure appropriate prescribing, accurate dispensing, avoidance of adverse drug interactions and improved patient safety.

    - Prescriptions can be delivered electronically to the pharmacy, reducing errors, duplication and delays.

    - Patients will know that their physician and their pharmacist have all the information needed to ensure appropriate prescribing, accurate dispensing and improved patient safety.

Key Elements of Electronic Prescribing

Pharmacies

Drug Information System

Pharmacy System 1   Pharmacy System 2   Pharmacy System 3

Medication Management System

DIS

Knowledge Repository

Multi-User EMR Setting

EMR 1   EMR 2

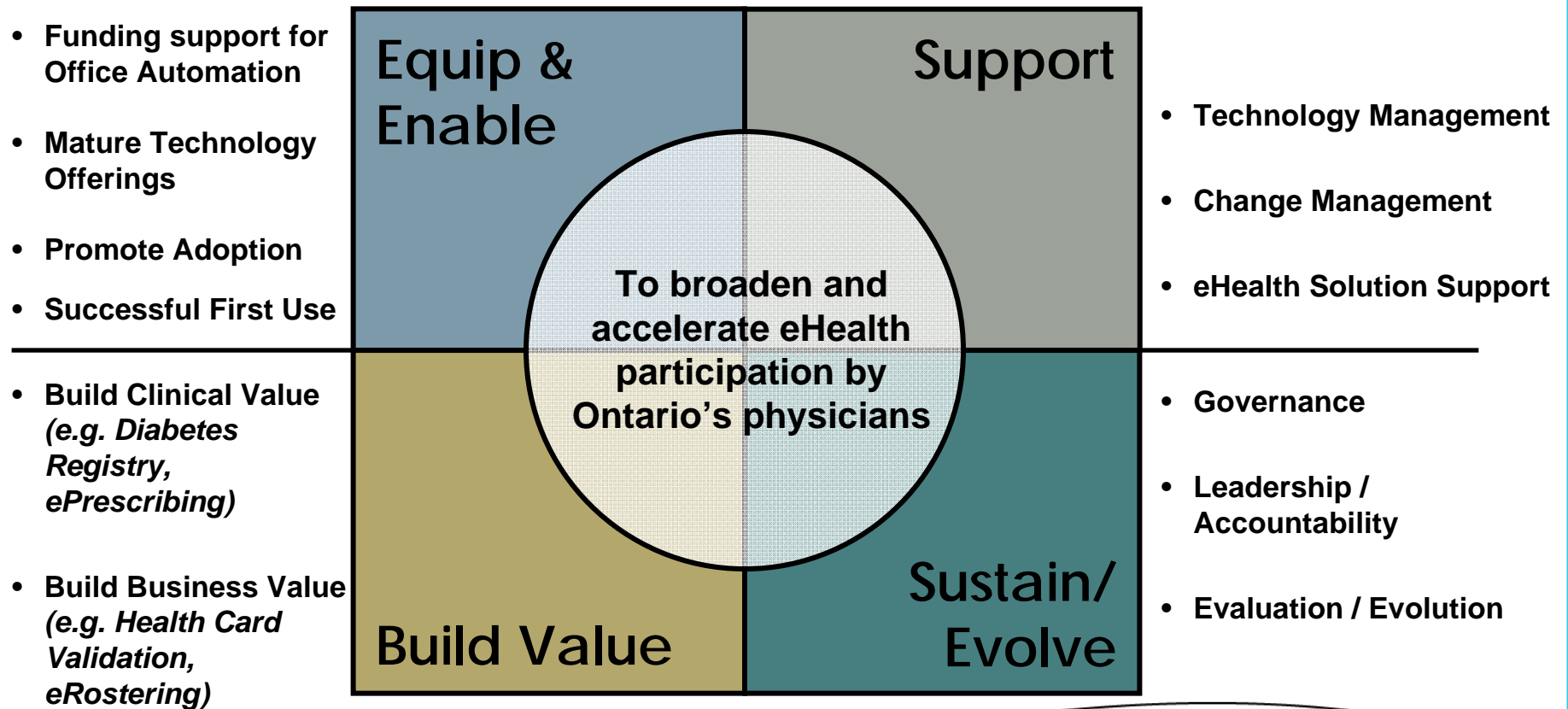Local Repository

Physicians

1. Patient identification at the prescribing and dispensing locations

2. Comprehensive medication profile viewed by physicians and pharmacists

3. Clinical Decision Support tools (*e.g.* clinical guidelines) available at point-of-care

4. Prescription stored in repository (*e.g.* DIS)

5. Prescription retrieved by pharmacists from repository (*e.g.* DIS)

6. DUR performed on comprehensive medication profile by physicians and pharmacists

7. Dispensing event captured in repository (*e.g.* DIS)

ePrescribing Early Adopter Project

- The project will demonstrate the complete cycle of ePrescribing for prescribers and dispensers in a local setting; outcomes of this project will inform the implementation and adoption strategies for the full provincial ePrescribing system solution.

- Key elements of the project include:

  - Multiple physicians using a common EMR

  - Patient choice on where prescription will be filled

  - Multiple pharmacies participating in ePrescribing

- 2 – 5 projects in multiple LHINs will participate in the project.

- Projects will be selected in October.

- Projects will be implemented in April 2009.

Physician eHealth

Physician participation is critical to the success of Ontario's eHealth Strategy and priority initiatives. Physician eHealth will focus on four key areas to broaden and accelerate physician participation:

- **Funding support for Office Automation**

- **Mature Technology Offerings**

- **Promote Adoption**

- **Successful First Use**

- **Build Clinical Value** *(e.g. Diabetes Registry, ePrescribing)*

- **Build Business Value** *(e.g. Health Card Validation, eRostering)*

Equip & Enable

Support

Build Value

Sustain/ Evolve

To broaden and accelerate eHealth participation by Ontario's physicians

- **Technology Management**

- **Change Management**

- **eHealth Solution Support**

- **Governance**

- **Leadership / Accountability**

- **Evaluation / Evolution**

Physician eHealth – Moving Forward

- Ontario's Primary Care IT funding program has been effective in supporting eligible Primary Care groups to acquire and implement Electronic Medical Records (EMR) – offering physicians technology subsidies, transition support, and SSHA network connectivity.

  The Program is now fully subscribed, and has funded approximately 2,700 physicians. The majority (84%) of those surveyed reported that their practice is or will be 'paperless' in the next 12 months

- Priorities for the next 12 months:

  - New EMR Adoption programs to convert physician office practice to electronic medical records and electronic communications

  - Enhanced CMS products with chronic disease management functionality and a multi-year plan for improving usability and achieving interoperability

  - eHealth Portal providing physicians with access to an integrated view of patient health information (including lab results, medications), and eHealth tools (diabetes registry, ePrescribing)

  - Ministry and LHIN-based projects contributing clinical and business value:
    - Online Health Card validation
    - e-Referrals

eHealth Portal

- The eHealth Portal will help transform the delivery of health care in Ontario and revolutionize health care consumer empowerment through timely and secure delivery of online, personalized information and services.

- The eHealth Portal's first priority is to support the delivery of the Diabetes Registry.

- Current applications that will provide information include labs, drugs and diagnostic imaging. This list will expand as more information becomes available and over time will be integrated into existing provider systems.
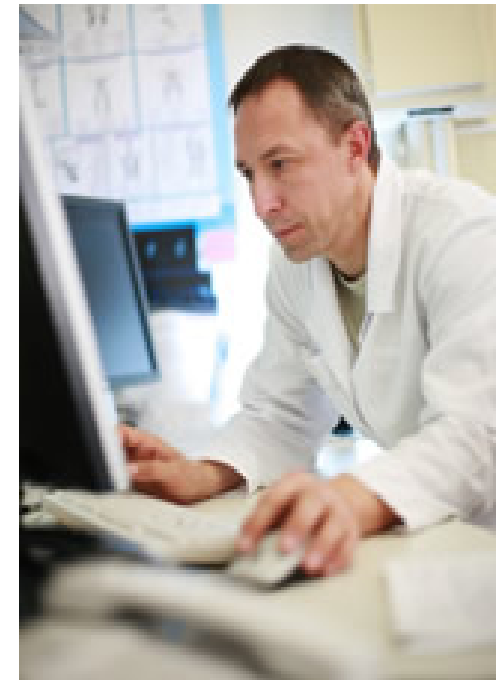
eHealth Portal (cont'd)

- Will build upon the www.eHealthOntario.ca investments* for delivery of portal infrastructure.

- Will leverage existing standing agreements to procure additional products and services.

- Will leverage eHealth services and shared resources identified in the eHealth Blueprint architecture for delivery of common components and deliverables (e.g. architecture, HIAL, standards, privacy, etc.) .

- Will leverage community eHealth investments* made or being made e.g. Waterloo-Wellington HealtheConnections Project, OntarioMD, Trillium Patient Portal, Toronto GTA HIAL, Heart & Stroke High Blood Pressure initiative, CMA patient portal, etc.

* Including leveraging registered users

eHealth Portal Prototype

A Vision of the Possible
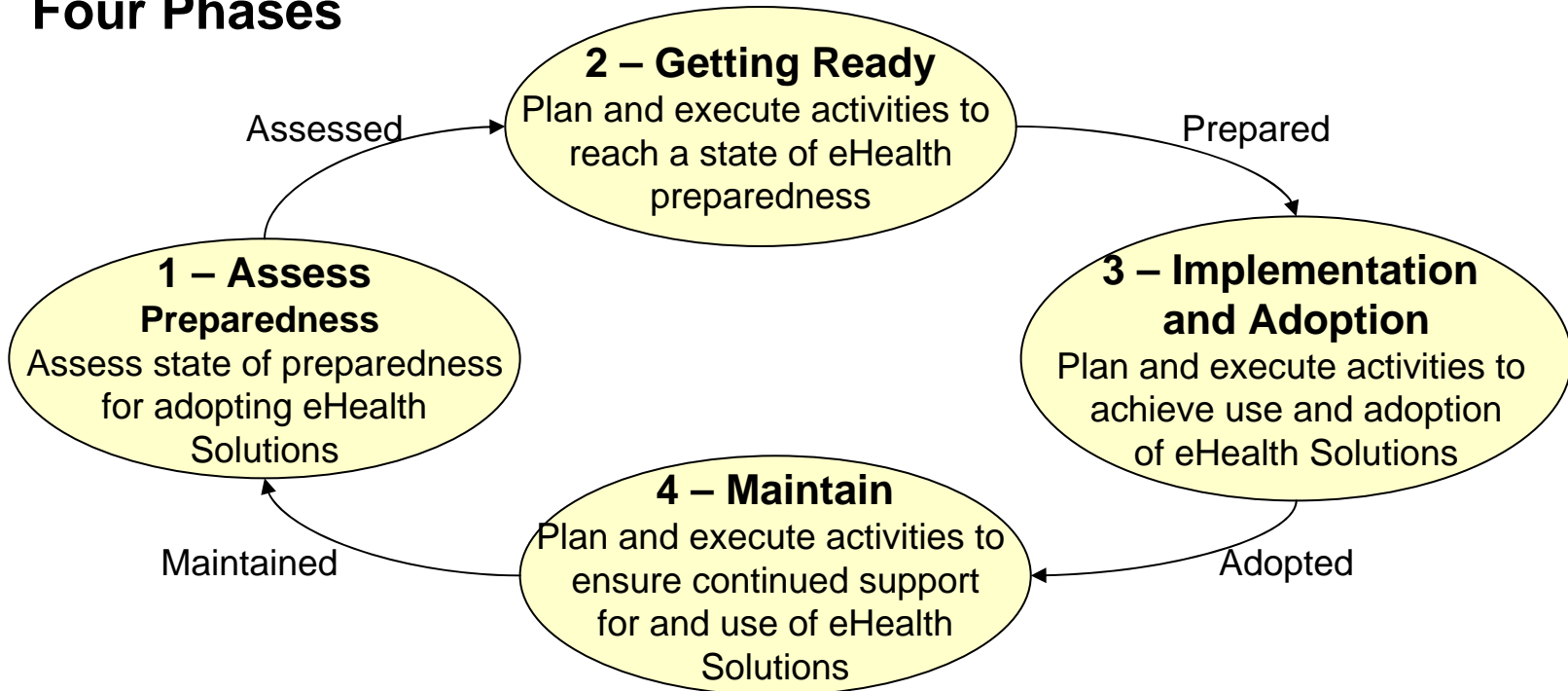
Implementation & Adoption

Implementation and Adoption (I&A) Strategy

The eHealth Program has developed an Implementation & Adoption Strategy that:

- Utilizes a phased approach supporting delivery on specified near-term commitments for 2008/09 and at the same time putting in place eHealth infrastructure for continuing forward toward meeting 2015 commitments.

- Moves aggressively on four core projects in Ontario's approved eHealth Strategy: the Diabetes Registry, the Portal (Integrated Clinical Viewer), e-Prescribing, and Physician eHealth.

- Manages expectations around eHealth capability regionally, building acceptance projects and solutions through defined projects that are proceeding in a phased approach through the LHINs and their communities:

  - Specified LHINs are designated "Early Adopters" focusing on early results in selected core projects.

  - Specified LHINs are selected to proceed with on-going eHealth project pilots, referred to as "Special Projects".

  - Specified LHINs are designated for "Getting Ready", referring to focused activities for building enhanced capacity and readiness.

Phases of Implementation and Adoption

Four Phases

2 – Getting Ready
Plan and execute activities to reach a state of eHealth preparedness

Assessed

Prepared

1 – Assess Preparedness
Assess state of preparedness for adopting eHealth Solutions

3 – Implementation and Adoption
Plan and execute activities to achieve use and adoption of eHealth Solutions

4 – Maintain
Plan and execute activities to ensure continued support for and use of eHealth Solutions
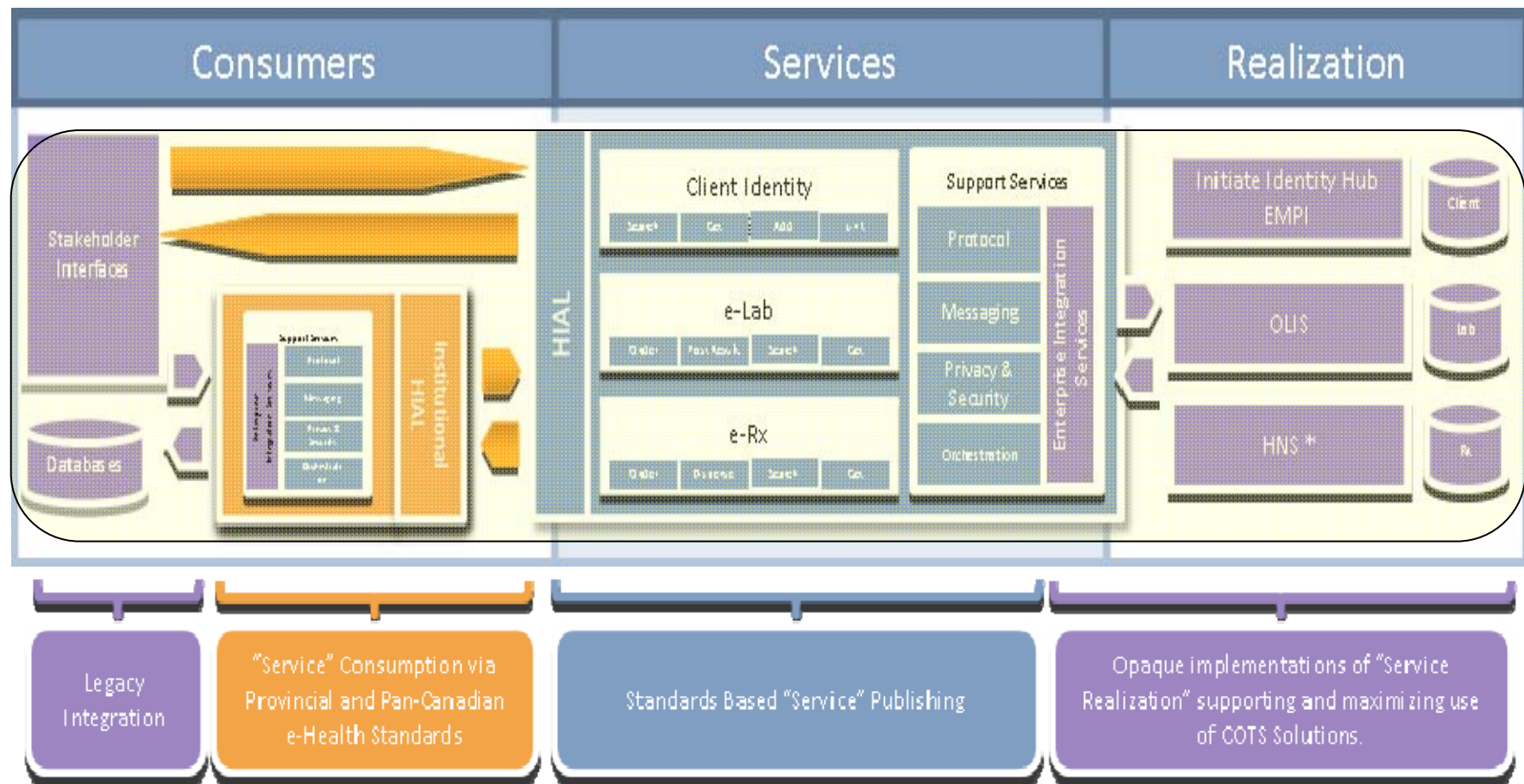
Maintained

Adopted

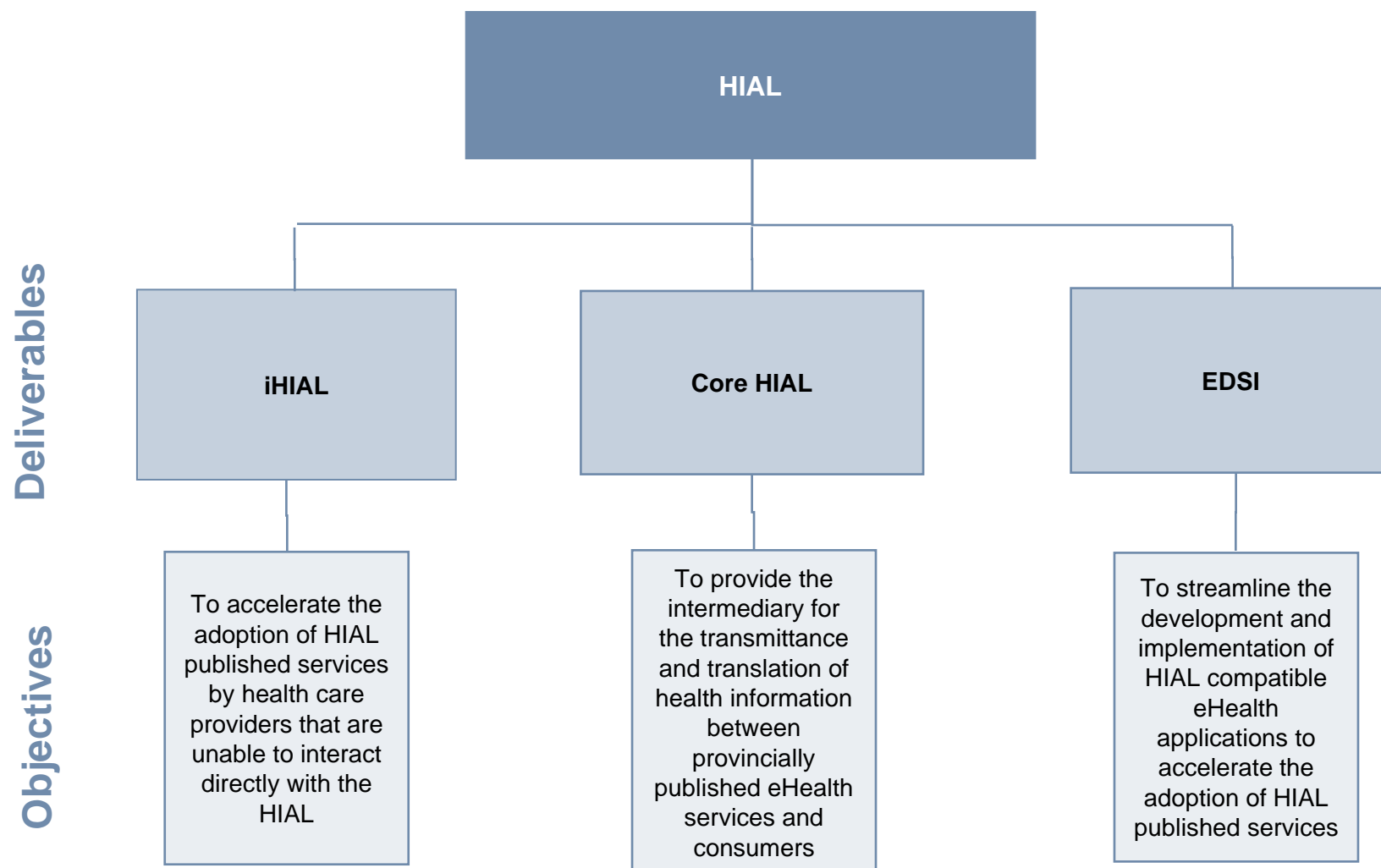# Introduction to Integration Services

eHealth Integration Services

- To overcome the challenge of integrating disparate health care systems and data sources, and to realize a consolidated view of health information, the concept of a sector wide Health Information Access Layer (HIAL) was introduced.

- Integration Services is responsible for the procurement, implementation and ongoing support of this HIAL, including the governance and supporting business model.

  - **HIAL: Core, iHIAL and EDSI**

  - Common Services (Clinical Domains & IAP) Publishing

  - Portal (Gadget) Build

  - Business Development & Governance

- Integration Services will work closely with the health sector (i.e. GTA HIAL & Portal project) and the vendor community (via ITAC) to ensure the appropriate integration services are provided and are sustainable.

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The Health Information Access Layer

The Health Information Access Layer

Deliverables

Objectives

HIAL

iHIAL

Core HIAL

EDSI

To accelerate the adoption of HIAL published services by health care providers that are unable to interact directly with the HIAL

To provide the intermediary for the transmittance and translation of health information between provincially published eHealth services and consumers

To streamline the development and implementation of HIAL compatible eHealth applications to accelerate the adoption of HIAL published services

Procurement

Procurement Overview

- We are entering a new phase in procurement.

- During the transition phase, ministry staff cannot engage in 1 to 1 discussions with vendors or disclose any information that might prejudice the procurement process.

- We will also continue to use the VOR arrangements currently in place for consulting services.

- Requests For Proposals will be issued, as required.

- All competitive procurements will be posted on MERX (www.merx.com).

Procurement Overview (cont'd)

Upcoming procurements to the end of fiscal 08/09:

Solutions / Products	Professional Services
• Diabetes Registry • Drug Information System • Consent Registry • HIAL Core • iHIAL	• Integration Services Project • Portal/Viewer Portal and Gadgets • Identity Access Privacy • Clinical Domains

Discussion / Questions