



Canada
Health
Infoway

Inforoute
Santé
du Canada

Leading Change Through Information Management

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Why bother getting engaged?

- To the heart of the matter...
- Benefits across continuum of care
- Opportunities for nurse leaders
- Benefits for nursing

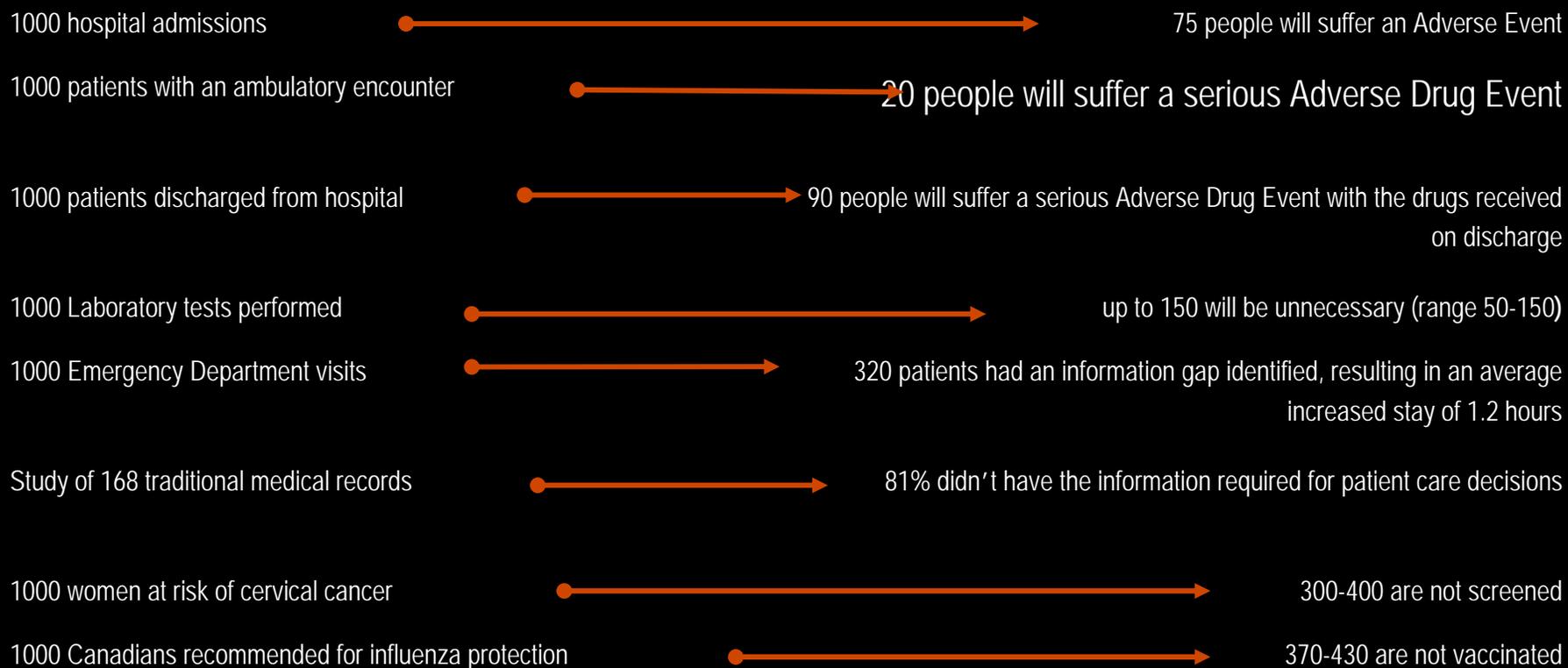


The need for EHRs in Canada

Healthcare In Canada - The Challenges

For Every

.... in Canada



The need for health information management



Consumerism is growing

Providers, managers, patients, public are demanding more

Population is aging



Pressures on resources are greater

IT has potential to enable solutions to address pressures

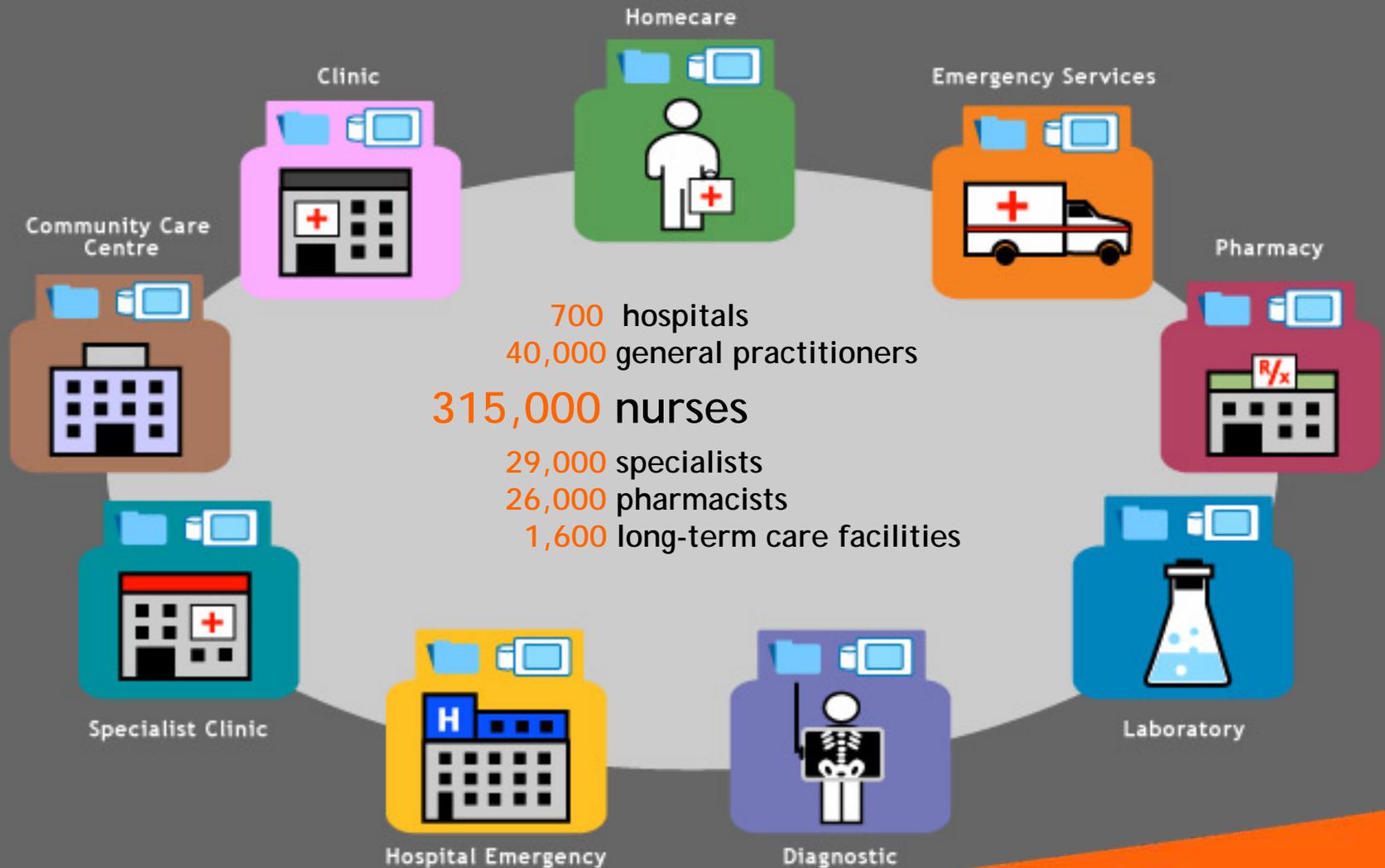
Care settings are shifting



What Canadians expect from the health care system:

- Accurate information that moves with them
- Communication between their various health care providers
- Protection of their privacy
- Input into decisions
- Elimination of undue risk
- Timely access/results

A Disconnected System...



What is an EHR?



An electronic health record (EHR) provides each individual in Canada with a secure and private lifetime record of their key health history and care within the healthcare system. The record is available electronically to authorized healthcare providers and the individual anywhere, anytime in support of high quality care.

Access to detailed data

The screenshot displays a patient's medical record for **GME0000 Smith, Caroline**. The interface is divided into several sections, each highlighted with an orange callout box:

- Results and images:** Points to the 'Patient Record' sidebar menu.
- Patient information:** Points to the patient's personal details, including name, sex, date of birth, and address.
- Medical alerts:** Points to the 'Alerts' section, which lists allergies and medication-related warnings.
- Medication history:** Points to the 'Medications' table, which lists drugs, dosages, and last filled dates.
- Interactions:** Points to the 'Diabetic Indices' table, which shows blood sugar levels and other clinical metrics.
- Problem list:** Points to the 'Diagnosis' table, which lists medical conditions and their status.
- Immunization:** Points to the 'Immunizations' table, which lists vaccines and the number of doses received.

Other Healthcare Providers:

Name	Disp.	Last Encounter	Next encounter	Right of Access
Diaz, Ellen	Cardiology	01/2006	07/2006	Y
Fournier, Janice	RN	08/2005		N
Cohen, Richard	Dermatology	07/2005	N	

Medications:

Date	Medications	Prescriptions	Last Filled
11/1989	Hydrochlorothiazide 25 mg	One tab at breakfast	12/2005
03/1999	Glucophage 5 mg	One tab twice daily	12/2005
01/2001	Metformin 500 mg	Two tabs twice daily	12/2005
03/2001	Atorvastatin 20 mg	One tab at supper	12/2005
02/2002	Atenolol 50 mg	One tab at breakfast	12/2005
02/2002	ECASA 325 mg	One tab at breakfast	12/2005
02/2006	Ramipril 10mg	One tab at supper	02/2006
06/2005	Cloxacillin 500 mg	Discontinued	
05/2004	Beclomethasone Cream	Discontinued	

Encounter History:

Date	Facility	Speciality	Clinician	Reason	Type
02/2006	GP			Hypertension	-
01/2006	Cardio Assoc	Cardiology	Diaz, E.	CAD	Outpatient
12/2005	GP			Diabetes	-
10/2005	General Hosp	Dietician	Johnson, H.	Diabetes teaching	Outpatient
08/2005	GP			Diabetes	-
08/2005	GP			Cellulitis	-
08/2005	Home Visit	RN	Fournier, J.	Cellulitis	-
08/2005	GP			Cellulitis	-
07/2005	Polyclinic	Dermatology	Cohen, R.	Stasis dermatitis	Outpatient

Diagnosis:

Diagnosis	State	Status
Hypertension	11/1989	Ongoing
Diabetes	05/1996	Ongoing
Coronary Artery Disease	02/2002	Ongoing
Fasting lipids	12/2005	
Exercise stress test	1/2005	
Coronary angiogram / Cellulitis	02/2005	Resolved
Cholecystectomy	05/1981	Resolved
Cesarian section	01/1967	Resolved

Immunizations:

Type	Most Recent	Number Received
Influenza	11/2005	7
Pneumovax	03/2005	1
Twinrix	08/2002	3
Td	04/1996	1

Diabetic Indices:

Type	Value	Most Recent
A1C	0.071	12/2005
LDL	2.41	12/2005
BP	135/75	02/2006
Urine Microalb	0.02	08/2005
Eye Exam		05/2005
Home Gluc (average)	7.4	01/2006

Canada Health Infoway

- Created in 2001
- \$1.6 billion in federal funding to date
- Independent, not-for-profit corporation
- Equally accountable to 14 federal/provincial/territorial governments

Mission:

To foster and accelerate the development and adoption of electronic health information systems with compatible standards and communications technologies on a pan-Canadian basis with tangible benefits to Canadians.

Goal:

By 2010, every province and territory and the populations they serve will benefit from new health information systems that will help modernize their healthcare system. Further, 50 per cent of Canadians will have their electronic health record readily available to their authorized professionals who provide their healthcare services.

Infoway programs

Ten investment programs totalling \$1.636 billion

End-user Adoption and Setting the Future Direction	Innovation and Adoption - \$60 million				
Healthcare Applications and Innovation Projects	Telehealth \$100 million	Public Health Surveillance \$135 million	Patient Access to Quality Care \$50 million	Cancer	Chronic Diseases
				Primary Care	Mental Health
The Electronic Health Record	Interoperable EHR - \$365 million				
Registries and Domain Repositories	Registries \$134 million	Drug Systems \$250 million	Laboratory Systems \$170 million	Diagnostic Imaging \$340 million	
Architecture and Standards	Infostructure - \$32 million				

Why electronic health record solutions matter in the provision of Health Services



Benefits of Electronic Health Records

Infoway Electronic Health Record

Demographics
Diagnostic Images
Laboratory Results
Drug Profile
Clinical Reports
Immunizations
Infectious Diseases
Telehealth



Benefits = \$30 million per year¹

- Medical Transportation Savings = \$30 m/yr

Access

- Availability of Services
- Ability to Access Services
- Consumer Participation

Benefits = \$3.4 billion per year²

- Inpatient ADE = \$1.6 b/yr
- Ambulatory ADE = \$1.4 b/yr
- Post Discharge ADE = \$0.4 b/yr

Quality

- Safety
- Effectiveness
- Appropriateness

Benefits = \$1.6 billion per year^{2,3}

- Diagnostic Imaging Efficiencies = \$1.1 b/yr
- Laboratory Test Efficiencies = \$0.5 b/yr

Productivity

- Efficiency
- Care Coordination

Sources

1. Health Canada – Telehealth Evaluation
2. Booz Allen Hamilton – EHR ROI Model
3. Courtyard Group – DI ROI Model

Three key issues are putting Canada's health care professionals under pressure:

Demographics

- An aging population and increased burdens of chronic disease are making the care of patients within community practice settings and health care institutions more challenging
- Nurses are getting older; the average is 45 years of age
- Recent graduates are looking for work environments that use state of the art information systems

Care Delivery

- Nurses spend between 35 per cent to 40 per cent of their time managing paper records, seeking, retrieving and documenting clinical information
- The increased delivery of care in the home has stretched home and community support services
- Manual and paper-based systems pose a threat to patient safety

Clinical Practice

- Increased expectations for the integration and application of current evidence at point of care. Paper-based records make this difficult if not impossible
- Increasing shortages of health care professionals
- According to recent studies, the nursing profession is stressed and overworked

EHR solutions can ease those pressures:

Demographics

- EHR solutions support the management of clinical care over time and across the continuum of care
- Strengthened quality of service for all Canadians through improved communication and information access
- Improved management of clinical care over time and across the continuum of care

Care Delivery

- EHR solutions can eliminate the avalanche of paperwork and streamline processes, allowing clinicians to devote more of their time to the provision of quality care for patients
- A safer patient environment through access to complete medical histories: the right information at the right time

Clinical Practice

- Integration and application of current evidence at point of care
- Opportunity to strengthen communication between home, community and institutional care settings
- Care delivery optimizes knowledge and expertise
- Increased job satisfaction and retention of staff

Opportunities...

- Become conversant about the issues
- Recognize the need to participate
- Assert the importance of nursing's role & participation in EHR initiatives
- Represent nursing practice in EHRs
- Support nurses participation in this work
- Integrate solutions with nurses' work

Benefits

- Demonstration of nurses' contribution to clinical outcomes
- Nurses representing nursing at decision-making tables
- Information Systems that work for nurses
- Outputs that inform HHR planning and resource allocation
- Practice supported by evidence
- To be reaped by citizens...quality - safety



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Thank you!

