Experiences Implementing Ambulatory EMRs and Early Benefits

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Today’s Presentation

• Infoway and Investment in Ambulatory EMR

• Adoption Progress

• Emerging Benefits

• Success Factors
Who and what is Infoway?

With our partners, Infoway helps accelerate the development, adoption and effective use of digital health solutions across Canada.
Canada’s Economic Action Plan

In 2009, Canada’s Economic Action Plan provided $500 Million to Canada Health Infoway. Of this amount $380 million was allocated to EMR investments:

The EMR investment is focused on:

- **Upgrading the clinical solutions**
  - Upgrade EMR and Pharmacy solutions
  - Connect Hospital Information Systems to EHR

- **Deploying the clinical solutions**
  - Implement the upgraded EMR solutions in community and ambulatory settings

- **Achieving increased clinical value**
  - From the use of EMRs by physicians (general practitioners and specialists) and nurse practitioners

**Supported by:**
- Creating new and supporting existing physician office support programs
- Peer Leader Networks
- EMR Benefits Evaluation
- EMR & Ambulatory EMR product certification
- Interoperability tools to support vendors and jurisdictions

Source: Electronic Medical Records & Integration Investment Program Strategy, Board Deck, 2010, Canada Health Infoway
Ambulatory EMR Investment Objectives & Progress

Enhance EMR Interoperability with the EHR

- Approx. 40 RHA/hospitals; 10 different hospital information systems have been upgraded and connected to jurisdiction EHRs

Increase Ambulatory EMR adoption

- Initial objective was to deploy up to 8000 seats in ambulatory clinics.

Achieve increased clinical value

- Achieve Clinical Value 1
- Achieve Clinical Value 2

PROGRESS to DATE

- 60+ hospitals using 11 different hospital information systems that have been upgraded
- 11,879 seats funded due to demand. Of these, 98% have been deployed
- ~76% of Clinical Value 1 targets have been met.
- ~40% of Clinical Value 2 targets have been met.
Ambulatory EMR Canadian Landscape Estimates

Frequency of Clinician eCharting

- **9,830** hospital-affiliated ambulatory outpatient clinics (2013)
- **57,000** clinicians and other staff
- **44 million** visits/year

*Source: Ambulatory EMR Landscape Survey, Harris Decima, (October 2013)*
32% of clinics across Canada routinely enter clinical encounter notes electronically, a good indicator of mature EMR adoption.

Notes:
1) Quarterly reporting for Ambulatory EMR seat go lives began in Q2 2012/13
Specialist EMR Use - Canada

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Evaluation Results
Overall, I Find the System Easy to Use
Post-implementation (3-6 Months)

% users ‘Agree’

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Source: System and Use Survey administered by Infoway AMB EMR Projects:
*Assessment done at 20-months post implementation
What Specialists Say:
Average Productivity Gains

+11% for clinicians
+11% for clinics
Clinician and Clinic Process Efficiencies
Admin, Nursing and Physician Process impact

10 - 50% Reduction in time spent:
• Locating Chart
• Reviewing Chart
• Order/retrieve labs and other tests
• Appointment scheduling

Same/More time spent:
Entering clinical documentation/orders
Medication reconciliation
Information transfer to external sources/providers
Generate reports

From the Project Files
Examples of Clinician and Clinic Efficiencies

• **80% reduction** in staff time calling patients

• Reduction in transcription FTE’s from 51.8 to 17.63, estimated annual savings: **$2.2 million**

• Reduced average transcription cost per clinic/dept -**$714**
What Specialists & Staff Say

82%: improved info sharing among providers
91%: can now find patient info quickly & easily
89%: timely access to clinical doc improves decision-making

Source: Ambulatory EMR Landscape Survey, Harris Decima, (October 2013), Survey of Specialists
Base: Specialists who maintain some or all of their records electronically (n=56) Caution: Small sample size
Connected Amb MDs see Fewer Info Gaps

% of encounters for which a specific type information was required where an information gap existed

*All results statistically significant. Source: Infoway Ambulatory Outpatient Clinic Information Gaps Study
Info Gaps Cause Fewer Consequences for Connected Amb MDs

- Re-ordered a lab test: 2% / 5%
- Re-ordered a diagnostic image: 1% / 3%
- Patient time was wasted (eg. waiting): 5% / 9%
- My time was wasted (eg. searching, calling, waiting): 10% / 13%
- Forced to proceed with incomplete information: 4% / 13%

% of all encounters for each cohort with a specific impact generated by an information gap

*All results statistically significant
From the Project Files

**Improved time-to Cancer Treatment**

Consultant Appointment

Date of first treatment

- Hemato-oncology: 7 days sooner

From the Project Files

**Improved throughput and interaction**

- 19% – 40% reduction of in-clinic wait times in two studies
- 86% physicians report improved interaction with patients
- 82% patients report care provider accessed info from prior visit
What Specialists Say

64%: Ambulatory EMRs are beneficial or very beneficial for quality of care
Barriers to Value and Success Factors
Barriers to realizing full clinical value of EMR: Outpatient Ambulatory Clinic Nurses

- Use of both paper charts and electronic records: 74%
- Multiple logins required to access different clinical information systems: 69%
- Lack of available equipment (e.g. workstations): 42%

Source: 2014 Infoway-CNA National Nurses Survey
Base: All respondents in clinical practice providing direct care in In-patient (critical care) setting (n=119)
Top Project Risks and Issues

1. Schedule
   – Projects underestimate complexity and dependencies, causing delays

2. Scope
   – Ambitious project scope and required scope adjustments

3. Adoption
   – Diverse clinics and populations within projects
Success Factors: Sustained Change Effort

- **Workflow analysis & integration** with administrative and clinical practice requirements and hospital and/or regional IT systems

- **Stakeholder engagement and training** supporting use of advanced features and multiple systems

- **Leadership and governance** ensuring commitment to scope and resources long-term