ColonCancerCheck: Using technology to support the goals of Ontario’s colorectal cancer screening program

June 15, 2010
Agenda

1. The cancer system in Ontario
   - Cancer Care Ontario overview
   - Aligning goals: Cancer Care Ontario and public health

2. Components of population-based screening programs

3. The case for population-based colorectal cancer screening
   - ColonCancerCheck

4. The technology: InScreen
   - InScreen’s value add and implications

5. Primary Care Invitation Pilot

6. Best practices

7. Opportunities and future plans
Cancer Care Ontario overview

Cancer Care Ontario is the provincial agency responsible for continually improving cancer services.

As the government’s cancer advisor, Cancer Care Ontario works to reduce the number of people diagnosed with cancer and make sure that patients receive better care every step of the way.
Aligning goals: Cancer Care Ontario and public health

2008-2011 Ontario Cancer Plan

Goals:

1. Reduce the incidence of cancer
2. Reduce the impact of cancer through effective screening & early detection
3. Ensure timely access to effective diagnosis and high quality cancer care
4. Improve the patient experience across continuum
5. Improve the performance of cancer system
6. Strengthen translation of research into improvements in cancer control

2008 Ontario Public Health Standards:

Chronic Disease Prevention and Injury Prevention Program Standards

Goal: To reduce the burden of preventable chronic diseases of public health importance

- The board of health shall collaborate with community partners to promote provincially approved screening programs related to the early detection of cancers and other chronic disease of public health importance
Components of population-based screening programs

<table>
<thead>
<tr>
<th><strong>Education and communication</strong></th>
<th>• Providers and General Public</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recruitment</strong></td>
<td>• Eligible population</td>
</tr>
<tr>
<td><strong>Information systems</strong></td>
<td>• IM/IT</td>
</tr>
<tr>
<td><strong>Recall and follow-up</strong></td>
<td>• Providing support to clients to navigate the cancer screening system</td>
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<td><strong>Quality assurance and improvement</strong></td>
<td>• Monitoring performance to meet quality standards</td>
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<tr>
<td><strong>Evaluation and research</strong></td>
<td>• Generation of new knowledge and evidence</td>
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The case for population-based colorectal cancer screening

The Challenge

- Colorectal cancer (CRC) is the second leading cause of cancer death in Ontario
- 2.8 million Ontarians between the ages of 50 and 74 are eligible for CRC screening
- In 2009, there was an estimated 8,100 Ontarians diagnosed with CRC and 3,300 deaths

Evidence for Screening

- If caught early through regular screening, colorectal cancer is 90% curable
- People are 46% more likely to get screened based on the advice of a physician
- People are 11% more likely to complete an FOBT from their family physician when mailed a reminder
The case for population-based colorectal cancer screening

The Decision

- In January, 2007, the Ministry of Health and Long-Term Care and Cancer Care Ontario (CCO), introduced ColonCancerCheck (CCC) and in 2008 launched Canada’s first organized, population-based provincial colorectal cancer screening program.

Program Goals

1. To reduce mortality from colorectal cancer through and organized screening program
2. To improve capacity of primary care to participate in comprehensive colorectal cancer screening

Approach

- In 2008/2009, CCC built InScreen - the information management/information technology solution that enables the proactive identification of over three million Ontarians eligible for colorectal cancer screening.
How InScreen supports a population-based program

InScreen supports many stakeholders and groups providing value through multiple views for information.

Data Collection
- Hospitals
- Laboratories
- MOHLTC
- Other

Data Cleaning and Integration
- CCC Data Hub

Screening Record Creation
- InScreen

Products and Services
- Identifies screen eligible Ontarians
- Invites eligible Ontarians to discuss screening
- Notifies Ontarians about their result
- Recalls Ontarians for periodic screening
- Reminds Ontarians who have not responded
- Reports activity across the screening journey

- Increased capacity
- Integrated information
- Incentives
- Monitor screening performance
- Visibility
- Better quality of care
- Health equity
- Proactive, organized approach
- Healthcare consumerism
InScreen provides value to family physicians

<table>
<thead>
<tr>
<th>Product/Service</th>
<th>InScreen</th>
</tr>
</thead>
</table>
| **Identification and list generation** | • Screen eligible Ontarians  
                                 | • Physician validation                                                  |
| **Invitation**                   | • Co-branded correspondence                                              |
| **Recalls and reminders**        | • Recall - additional screening                                          
                                 | • Reminder - overdue for screening                                       |
| **Screening Activity Report**    | • Identifies care gaps and helps physicians manage progress towards preventative care bonuses |
| **Support**                      | • Online access to lists and reports via OntarioMD portal                
                                 | • Call centre support available                                          |
| **Electronic Medical Record (EMR)** | • Begins the movement towards interfacing data and integrating technology |

**Implications:**

- **Increased capacity:** Support to increase screening activities in clinical practice following evidence-based screening guidelines.
- **Integrated information:** View of provider’s practice at aggregate and patient level.
- **Incentives:** Preventative care targets and eligibility for associated incentives.
## InScreen provides value to regions/province

**Product/Service**

<table>
<thead>
<tr>
<th>Service</th>
<th>InScreen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient care</strong></td>
<td>• Identifies providers accepting new patients</td>
</tr>
<tr>
<td></td>
<td>• Attaches Ontarians requiring follow up care</td>
</tr>
<tr>
<td><strong>Screening performance</strong></td>
<td>• Ability to generate regional comparisons</td>
</tr>
<tr>
<td><strong>Invitations</strong></td>
<td>• Target hard to reach populations</td>
</tr>
<tr>
<td><strong>Regional/provincial capacity</strong></td>
<td>• Data and information support planning, management, program coordination, and quality control and standards</td>
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### Implications:

- **Monitor screening performance:**
  Regional and provincial view of specific characteristics of geographic populations.

- **Visibility:**
  Information about uniqueness of each region/province to allow for under screened and unscreened populations.

- **Better quality of care:**
  Evidence-based reporting and standards lead to new programs to support Ontarians.
### InScreen provides value to the public

<table>
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<th>InScreen</th>
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<tbody>
<tr>
<td><strong>Identification</strong></td>
<td>• Identifies screen eligible Ontarians</td>
</tr>
<tr>
<td><strong>Invitations, recalls, and reminders</strong></td>
<td>• Correspondence sent directly to Ontarians</td>
</tr>
<tr>
<td></td>
<td>• Indeterminate, rejected, negative to Ontarians</td>
</tr>
<tr>
<td><strong>Results correspondence</strong></td>
<td>• Positive results to Ontarians without physician</td>
</tr>
<tr>
<td></td>
<td>• Positive results to all Ontarians in future</td>
</tr>
<tr>
<td><strong>Failsafe reports</strong></td>
<td>• Will identify unattached Ontarians who require further screening</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td>• Call centre support available</td>
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</table>

**Implications:**

- **Health equity:** Consistent access to care across Ontario; leveraging efforts to reach hard-to-reach, unscreened, and under screened populations.
- **Organized approach:** Proactive patient engagement rather than opportunistic.
- **Healthcare consumerism:** Correspondence sent directly to clients, educating and empowering them to make informed decisions.
**CCC Primary Care Invitation Pilot**

*Between March 2009 and February 2010, CCC conducted a Primary Care Invitation Pilot to test the value of InScreen’s technology, data and information products for primary care. InScreen information products included:*

### Patient Lists
- InScreen was over **93% accurate** in identifying over 36,000 screen eligible Ontarians for participating family physicians.
- **84% of pilot family physicians completed** list validation.

### Invitations
- 13,661 co-branded invitations sent to Ontarians inviting them to speak with their family physician about colorectal cancer screening.

### Screening Activity Reports
- Reports generated by InScreen **identified 575 patients lost to follow-up.**
- Reports available to family physicians available online and in paper format.

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### Health Card Number
CCC

### Patient Information
- **Name:** (Last, First)
- **Date of Birth:** (D/M/Y)
- **Sex:**

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**Reason for proposing to not invite**

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**Reason for proposing to invite**

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Best practices from ColonCancerCheck can be leveraged for future public health initiatives

1. Understand your population’s needs
2. Partner with key stakeholders (primary care, labs, hospitals, MOHLTC)
3. Support program with appropriate IM/IT technology
4. Pilot and test to ensure there is value being provided
5. Leverage and share best practices for future population health initiatives
InScreen: Opportunities and future plans

1. Continue **physician engagement** and **screening participation** through expanded reach of invitations and physician reports.

2. Improve physician and patient access to screening information.

3. Integrate screening efforts across colorectal, breast and cervical cancers by expanding the functionality & data available in InScreen.
Questions?