Colorectal Cancer Screening Outcomes
2009-2010

ColonCheck was established in 2007 with the mandate to implement a provincial colorectal cancer screening program. The goal of the program is to reduce mortality from colorectal cancer through screening. The population-based program invites eligible individuals 50 to 74 years of age to complete a Fecal Occult Blood Test (FOBT).

**Program Operations**
- ColonCheck has a provincial registry that includes the following:
  - Demographic information on the target population
  - Medical claims data from Manitoba Health that identifies who has completed an FOBT in the past 2 years or had a colonoscopy or flexible sigmoidoscopy in the past 5 years
  - Cancer information to identify individuals with a diagnosis of colorectal cancer
The registry allows the program to identify individuals who need to be screened.
- Screening invitations (and FOBT kits) are distributed primarily through direct mail. FOBT kits are also distributed through BreastCheck, participating primary health care providers, and upon request.
- Tests are analyzed at Cadham Provincial Laboratory.
- Results are sent by the program to the individual and their primary care provider.
- The program coordinates follow up for individuals screened with the program’s FOBT and who have an abnormal test result.
- The program implements education campaigns for the general public and health care professionals.

**Provincial Screening Rates**
- Medical claims data combined with ColonCheck data shows that 45% of Manitobans 50 to 74 years of age are “up to date” for screening. “Up to date” includes individuals who have completed an FOBT in the past 2 years and/or had a colonoscopy or flexible sigmoidoscopy in the past 5 years. This information is summarized by Regional Health Authority in Figure 1. The lower rates in rural regions are partly due to the lack of claims data for FOB tests analyzed in rural hospital labs.
- 67% of Manitobans 50 to 74 years of age report that they are “up to date” for screening.

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**Figure 1: Percentage of Manitobans 50 to 74 years of Age “Up to Date” with Screening by Regional Health Authority (2009-2010)**

1 Canadian Partnership Against Cancer. (2012). Colon Cancer Screening in Canada Survey. “Up to date” for screening describes individuals reporting they have completed an FOBT in the last two years or have had a flexible sigmoidoscopy or colonoscopy in the last five years.
Screening Outcomes

Individuals invited
50-74 years of age at time of first invite
(between January 1, 2009 and December 31, 2010)
(n = 92,280)

Individuals Completing FOBT
(n = 21,455; 23.3%)

Indeterminate
(no further FOBT completed)
(n = 490; 2.3%)

Positive
(n = 755; 3.5%)

Negative
(n = 20,210; 94.2%)

Colonoscopy
(n = 653; 86.5%)

No Colonoscopy
(n = 102; 13.5%)

Normal
(n = 131; 20.1%)

Colorectal Cancer
(n = 26; 4.0%)

Advanced Adenoma
(n = 119; 18.2%)

Other Adenoma
(n = 114; 17.5%)

Other Pathology
(n = 257; 39.4%)

Other
(n = 6; 0.9%)

Results

- The percentage of individuals who completed an FOBT varied by invitation method:
  - 54% of individuals requesting an invitation
  - 38% of women receiving their FOBT from BreastCheck
  - 19% of individuals mailed an invitation
  - 68% of individuals sent a second invitation (subsequent to completing an FOBT 2 years prior) completed the test (n=2,155)

- 755 individuals (3.5%) had a positive FOBT and were referred for a colonoscopy. Of those who had a colonoscopy, 70% were referred by ColonCheck and 30% were referred by their primary care provider.

- 102 individuals (13.5%) with a positive FOBT did not have a colonoscopy. Reasons for not having a colonoscopy include patient refusal, medically unsuitable, death, or lost to follow-up.

- The median wait time from the date the FOBT was analyzed to colonoscopy was 16 weeks. For individuals referred by the program, the median wait time was 16 weeks compared to 18 weeks for those referred by their primary care provider. For individuals who live in Winnipeg, the median wait time was 17 weeks compared to 14 weeks for individuals who live outside of Winnipeg.

- The positive predictive value of the positive FOBT for those who had a follow-up colonoscopy was 18.2% for advanced adenomas and 4.0% for invasive colorectal cancer.

- The advanced adenoma detection rate was 5.5 per 1,000 screened.

- The invasive cancer detection rate was 1.2 per 1,000 screened.

- Staging information was available for 25 cancers: 8 were Stage I, 8 were Stage II, and 9 were Stage III or IV.