

Breast Screening in Manitoba

April 1, 2008 to March 31, 2010

How many women were screened?

BreastCheck Manitoba, formerly the Manitoba Breast Screening Program, was introduced in 1995 with a goal of reducing mortality from breast cancer by finding it as early as possible. In order to achieve this, the Program strives to screen 70% of the eligible population every two years.

From April 1, 2008 to March 31, 2010, the Program screened 78,390 women. The participation rate during this time period was 56%. In order to be

consistent with national indicators, a 30-month participation rate was also calculated. From April 2008 to September 2010, the 30-month participation rate was 60%.

Of women screened between April 1, 2007 and March 31, 2008, 82% returned over the next 30 months.

Figure 1 shows participation by Regional Health Authority. Participation ranged from 61% in the RHA of Brandon to 45% in the RHA of Burntwood.

Figure 1.
Participation rate by Regional Health Authority from April 2008 to March 2010



How many women needed further tests?

From April 2008 to March 2010, 8.7% of women who had a first screen (n=1,475) and 3.9% of women who had a return screen (n=2,577) were referred for further diagnostic tests. As part of these investigations, most of the tests performed were:

- diagnostic mammograms (54%)
- ultrasound (24%)
- core biopsy (16%)
- open biopsy (2.4%)
- surgical consultation (2.1%)
- fine needle aspiration (1%)
- MRI (0.3%)

How many cases of breast cancer were found?

A total of 348 cases of invasive breast cancer were diagnosed in women screened in 2008 and 2009. The cancer detection rate was 4.3 per 1000 women screened (4.7 per 1000 for first screens and 4.2 per 1000 for re-screens). An additional 80 women were diagnosed with in situ breast cancer.

How long did it take?

The median time from screening to the final diagnosis for women who had an abnormal mammogram between March 2008 and April 2010, and did not require a biopsy, was 17 days. The median time from screening to final diagnosis for women who did require a biopsy was 39 days. For women who had a malignant outcome, the median time from screening to final diagnosis was 30 days.

How are we doing?

A recent analysis evaluating the effect of screening participation on breast cancer mortality in Manitoba found that the risk of dying from invasive breast cancer was reduced by 23% for Manitoba women 50 to 69 years of age who were screened. Additionally, several interim measures of program effectiveness are regularly compared to national targets. Table 1 shows the performance measure, target, and Program outcome for women 50 to 69 years of age. More detail is available from the Program's 2008-2010 biennial report.

Table 1.
Comparison of Program outcomes with Canadian targets (50-69 years of age)

PERFORMANCE MEASURE	TARGET	PROGRAM OUTCOME
Participation rate (April 2008 to Sept 2010 – 30 months)*	≥ 70% of the eligible population	60%
Participation rate (April 2008 to March 2010 – 24 months)	Surveillance and monitoring purposes only	56%
Retention rate (2008/09)	≥ 75% re-screened within 30 months	82%
Abnormal call rate (2008 to 2010)	< 10% first screen	8.7%
	< 5% re-screen	3.9%
Invasive cancer detection rate (2008 and 2009)	> 5 per 1000 first screen	4.7
	> 3 per 1000 re-screen	4.2
In situ cancer detection rate (2008 and 2009)	Surveillance and monitoring purposes only	1.0
Diagnostic interval (2008 to 2010)	≥ 90% within 5 weeks – no tissue biopsy	83%
	≥ 90% within 7 weeks – tissue biopsy	66%
Positive predictive value (2008 and 2009)	≥ 5% first screen	5%
	≥ 6% re-screen	10%
Benign to malignant open biopsy ratio (2008 and 2009)	≤ 2:1 first and re-screens	3.4:1
Benign to malignant core biopsy ratio (2008 and 2009)	Surveillance and monitoring purposes only	1.5:1
Invasive tumour size (2008 and 2009)	> 25% ≤ 10 mm	33%
	> 50% ≤ 15 mm	61%
Negative lymph nodes in cases of invasive cancer (2008 and 2009)	> 70% node negative	76%
Post-screen detected invasive cancer rate (2006 and 2007)	< 6 per 10,000 person years (0-12 months)	4.8
	< 12 per 10,000 person years (0-24 months)	8.6

*Organized Breast Screening in Canada: Report on Program Performance in 2005 and 2006. PHAC; Ottawa, 2010