

# Examining the risks and the benefits of breast cancer screening

Reducing breast cancer deaths has been a public health priority for several decades. Research has shown that it is possible to decrease breast cancer deaths in women aged 50 to 69 with organized breast cancer screening. Each year the Manitoba Breast Screening Program (MBSP) provides almost 40,000 mammograms at four fixed sites and through two mobile units traveling to 87 Manitoba communities. Our goal is to reduce breast cancer deaths by finding it earlier.

Screening mammography is recommended based on the analysis that benefits outweigh the risks. It is important for every woman to know what the benefits and risks are so an informed choice can be made.

Mammography is not a perfect test; however, it is the only screening test for breast cancer that research has shown can reduce the risk of dying.

Possible risks or harms facing a woman considering screening include further testing, missed cancers, over-diagnosis, pain, and radiation exposure. Further testing is part of routine screening and occurs after a woman has an abnormal screening mammogram. At the MBSP, six out of every 100 women will be sent for additional tests such as an ultrasound, additional x-rays, or a biopsy. In most cases, further tests confirm that cancer is not present. However, a woman may experience anxiety when going through this process.

Screening cannot detect all breast cancers. Out of every 100 cancers, mammography will not detect 18. This is because some cancers are very difficult to see on the mammogram and are missed.

Another risk is over-diagnosis. There is a possibility that a woman will be diagnosed with an early cancer that would never be a threat to her life. It is not possible to tell which of these cancers will progress and become life threatening so it is recommended that all cancers are treated. This means a small number of women receive treatment that is of no benefit. Additionally, not all breast cancers found through screening can be cured.

Radiation exposure is also a concern because the dose received does add to a woman's lifetime

accumulation. The average woman receives 300 microsieverts during a mammogram at the MBSP. This is more than a dental x-ray but less than a single lumbar spine x-ray. The dose from natural background radiation each year is more than 10 times that from a mammogram.

Approximately one in 10 women in Canada will develop breast cancer and four out of every 100 women will die from breast cancer. Screening does not prevent breast cancer. The primary benefit of screening is a reduction in the number of deaths due to breast cancer. An analysis in Manitoba compared the number of deaths expected if screening was not in place to the number of deaths among women screened. The number of deaths for women 50 to 69 who were screened was about 25% lower which is consistent with other research.

The estimation of how many women need to be screened to prevent one death from breast cancer is another way of looking at the benefits. The United States Preventive Services Task Force estimates that one life is saved for every 838 women screened over 14 years. The United Kingdom's breast screening program estimates that one life is saved for every 400 women screened over a 10 year period.

The effectiveness of the MBSP is also evaluated using measures developed by all provincial breast screening programs and the Public Health Agency of Canada. One of these measures is detecting breast cancer early before it has spread to lymph nodes or other tissues. Detecting breast cancer early can reduce the amount of treatment required. This includes the option of breast conserving surgery, the removal of fewer lymph nodes, and less aggressive therapies.

Overall, the decision to be screened is an individual one. Some women will choose to be screened even though there are risks; other women will not. **We encourage women to make an informed decision about breast screening.**

For more information about breast screening, please visit [www.cancercare.mb.ca](http://www.cancercare.mb.ca).

MBSP 25 Sherbrook Street Unit 5  
Winnipeg MB  
PH: 788-8000 or 1-800-903-9290



MANITOBA  
BREAST SCREENING  
PROGRAM  
PROGRAMME  
MANITOBAIN DE  
DÉPISTAGE DU  
CANCER DU SEIN