



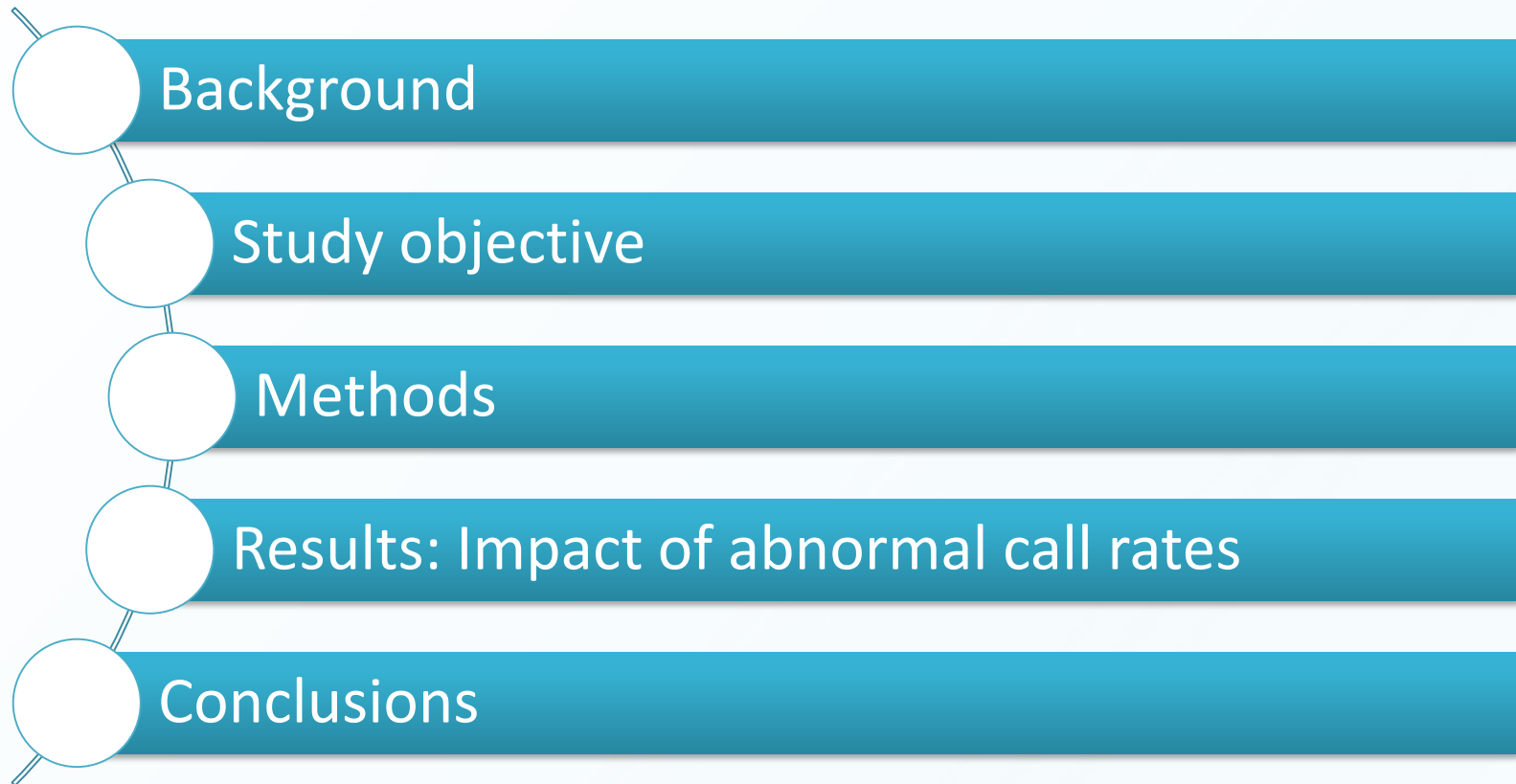
Avoidable diagnostic breast imaging and biopsy investigations: Impact of rising abnormal screening mammography rates

Presenter: Gregory Doyle, Chair Canadian Breast Cancer Screening Network

Preventing Overdiagnosis Conference
Quebec, August 19th 2017



Presentation outline

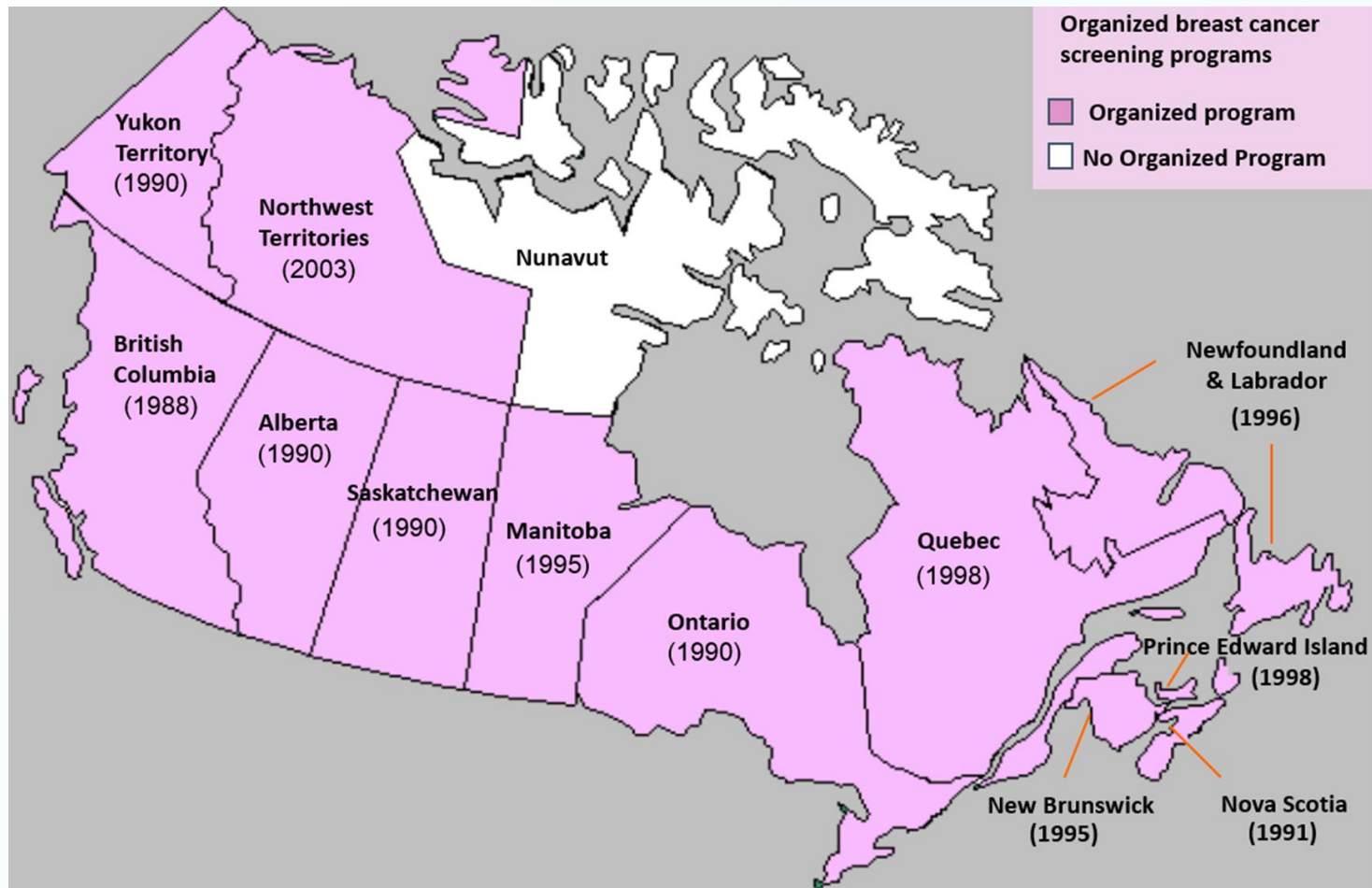


Background: Organized breast cancer screening in Canada



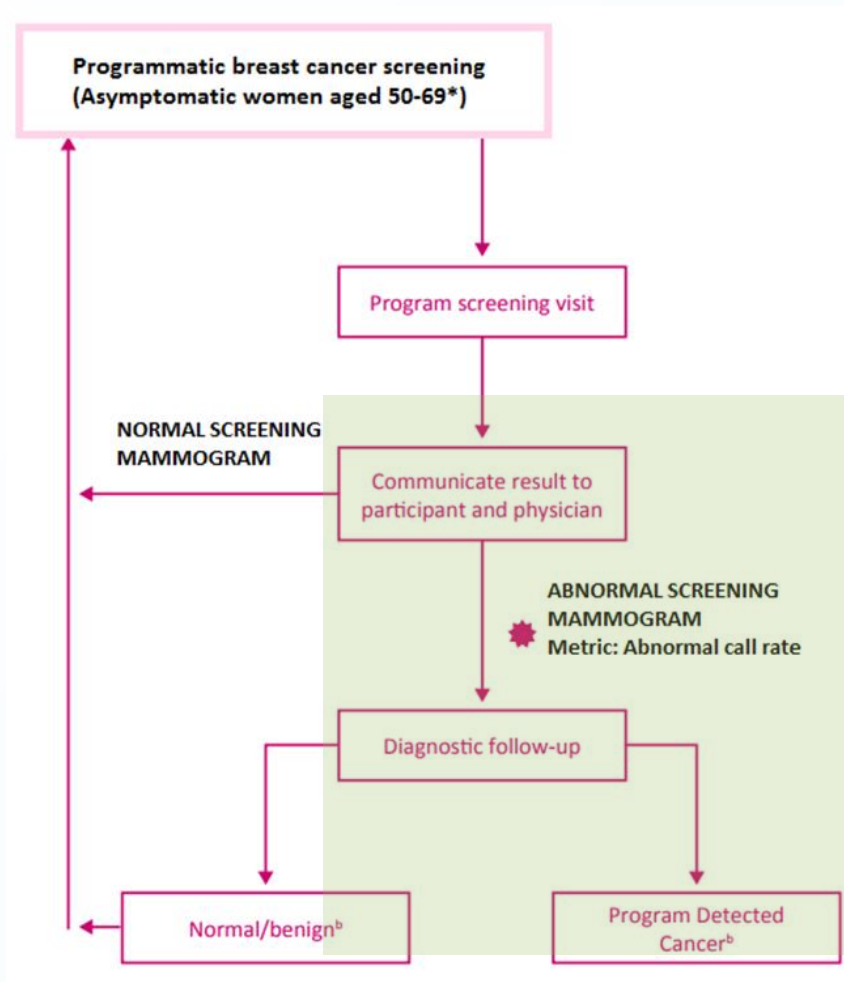
Adapted from: [Breast cancer screening in Canada – environmental scan](#) April 2016.

Background: Organized breast cancer screening in Canada



Adapted from: [Breast cancer screening in Canada – environmental scan](#) April 2016.

Background: The challenge of rising abnormal screening mammograms



There is evidence that the rates of abnormal screening mammograms have been increasing in recent years in several Canadian jurisdictions

Adapted from:

https://content.cancerview.ca/download/cv/prevention_and_screening/screening_and_early_diagnosis/documents/breast_cancer_screening_canada_monitoring_evaluating_report_2011_12p?attachment=0

Study objective

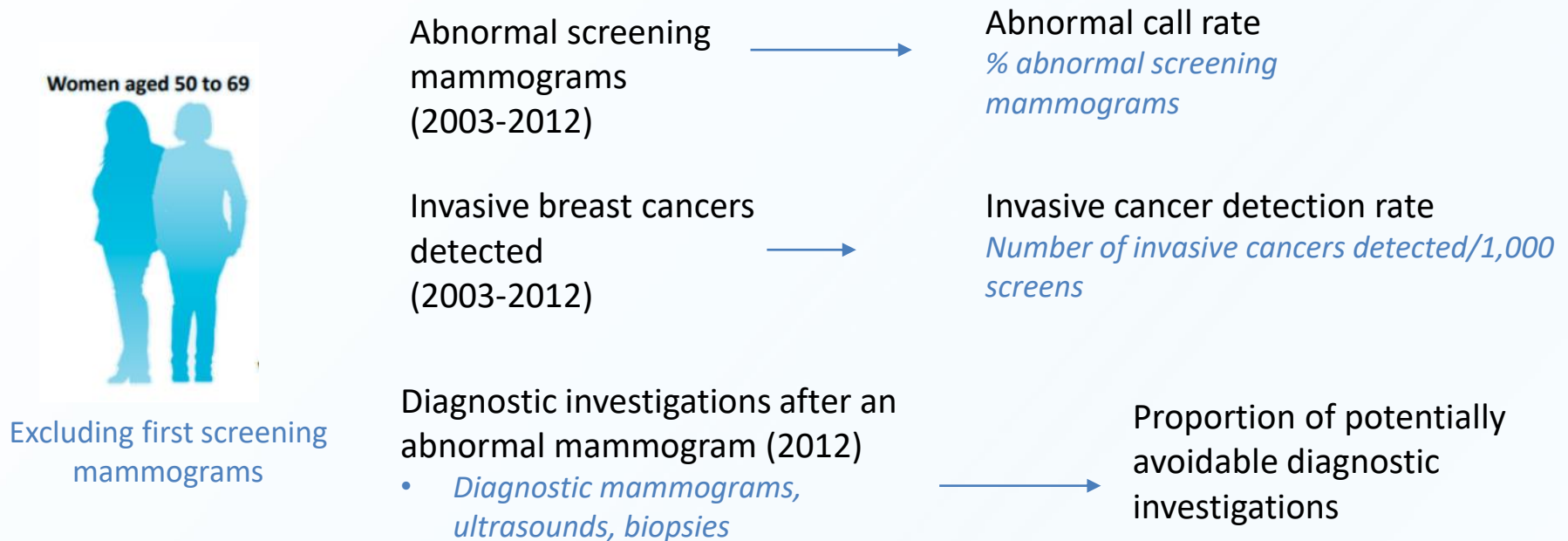
To estimate the impact of rising abnormal call rates in the number of additional – and potentially avoidable – follow-up diagnostic tests.

Methods

Canadian Breast Cancer Screening Database

Includes data submitted by 11 breast cancer screening programs (10 provinces, 1 territory)

- Retrospective data collection



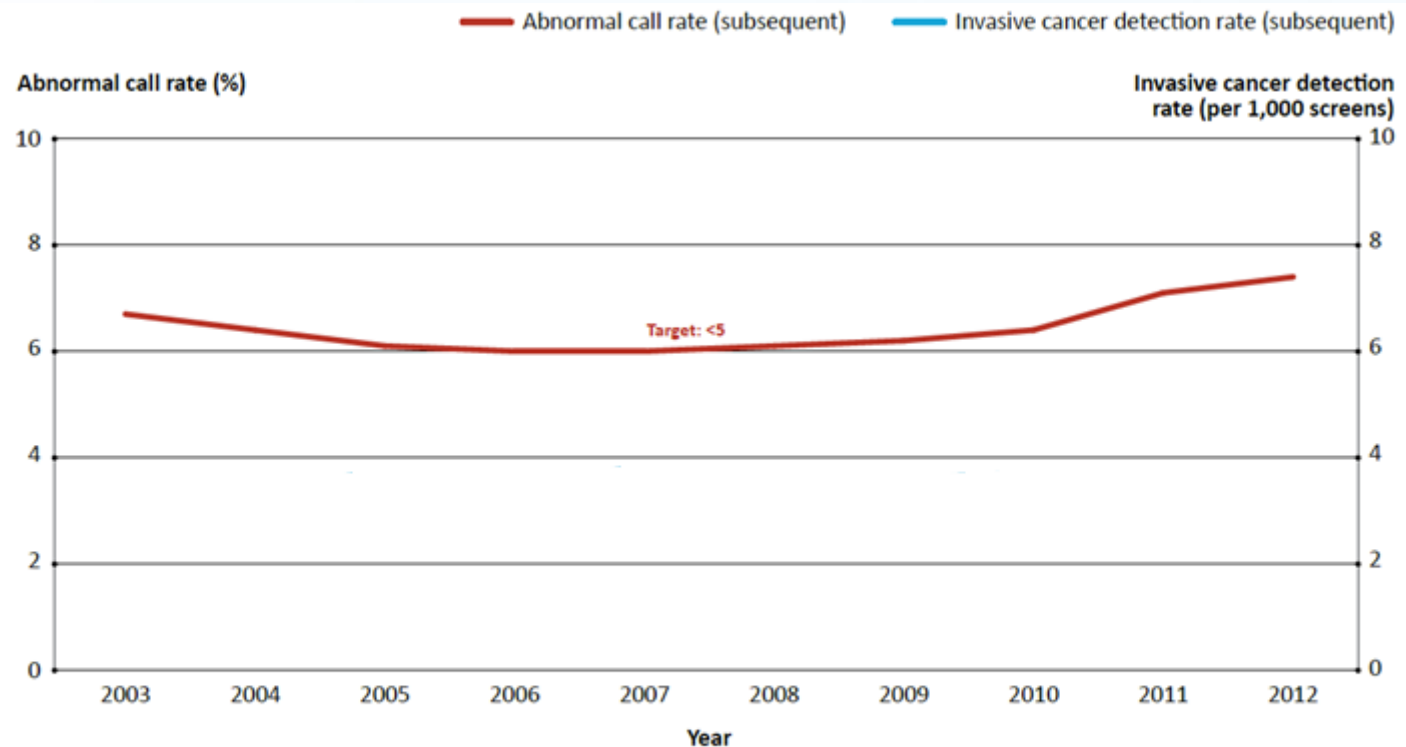
Results

Abnormal call rates were stable at around 6.1% between 2003 and 2008 but started increasing thereafter, reaching 7.4% in 2012.

Women aged 50 to 69



Excluding first screening mammograms



Notes

AB: Excluded from data prior to 2007 as the Alberta Breast Cancer Screening Program (ABCSP) was launched in 2007.
QC: Complete diagnostic/cancer information was available to September 30, 2012.

Results

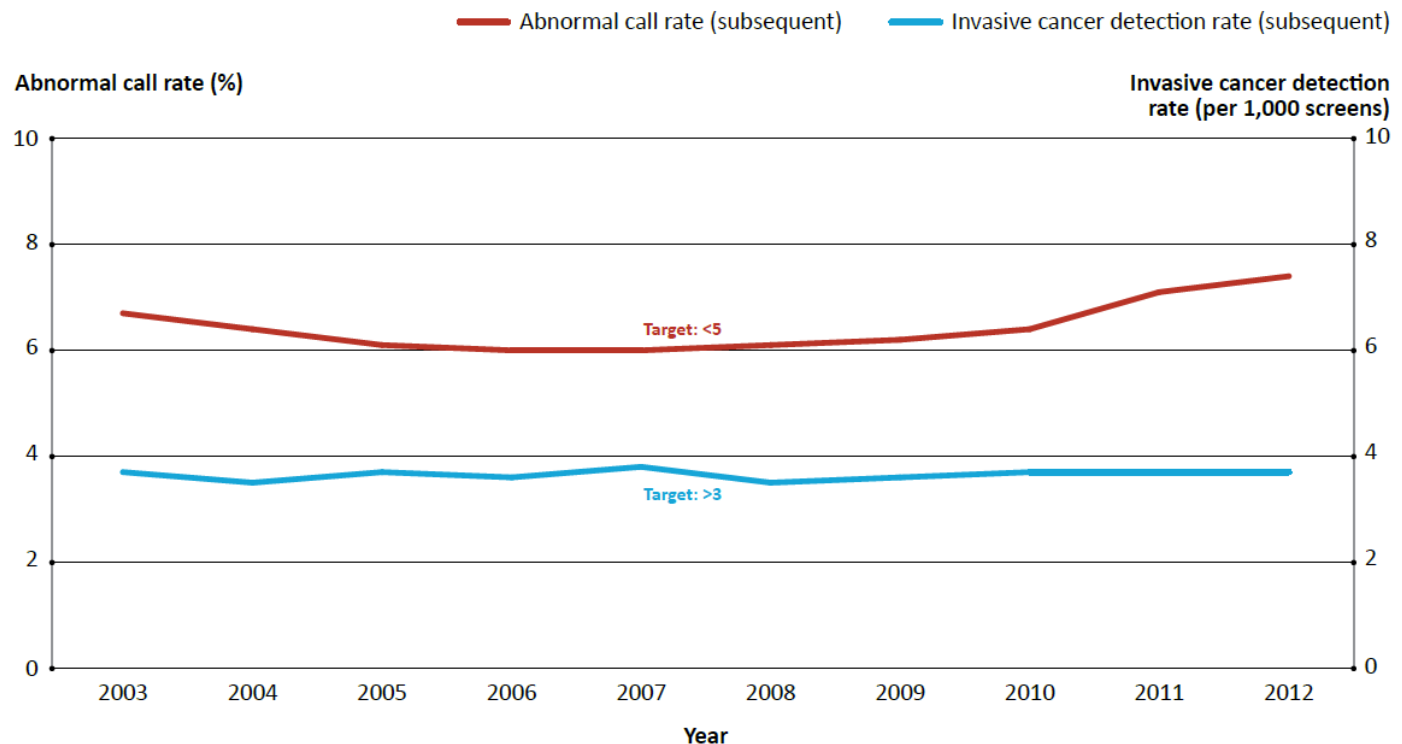
Abnormal call rates were stable at around 6.1% between 2003 and 2008 but started increasing thereafter, reaching 7.4% in 2012.

Invasive cancer detection rates, however, remained mostly unchanged at 3.7 per 1,000 screens.

Women aged 50 to 69



Excluding first screening mammograms



Notes

AB: Excluded from data prior to 2007 as the Alberta Breast Cancer Screening Program (ABCSP) was launched in 2007.

QC: Complete diagnostic/cancer information was available to September 30, 2012.

Results: Impact of abnormal call rates on diagnostic investigations.

Current state

7.4%

Abnormal call rate
(2012)

Number of subsequent diagnostic investigations

64,700



Diagnostic
mammograms

51,400



Diagnostic
ultrasounds

11,700



Core biopsies

1,300



Open biopsies

1,000



Fine-needle
aspirations

Results: Impact of abnormal call rates on diagnostic investigations.



Number of subsequent diagnostic investigations



Diagnostic investigations can be potentially avoided.

Conclusions

- There was a steady increase in the rate of abnormal screening mammograms from 2008 to 2012, while the invasive cancer detection rate remained relatively unchanged over the same period.
- Abnormal screening results require calling back the patient for subsequent diagnostic tests that may increase the risk of harm to the patient and always involve additional use of system resources.
- This study suggests that 20,400 diagnostic imaging tests and 2,500 biopsies are potentially avoidable as they are associated with the incremental increase in abnormal call rates.

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MANITOBA
BREAST SCREENING
PROGRAM



PROGRAMME
MANITOBAIN DE
DÉPISTAGE DU
CANCER DU SEIN

New Brunswick



NOVA SCOTIA
BREAST SCREENING
PROGRAM



ontario breast
screening program
a cancer care ontario program



PROGRAMME
QUÉBÉCOIS
DE DÉPISTAGE
DU CANCER
DU SEIN



SCREENING
PROGRAM
FOR BREAST
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BREAST SCREENING PROGRAM
100% INANNUAL/ANNUAL & LANGUAGES

Yukon
Mammography
Program

