# **BREASTSCREEN AOTEAROA**

# **INDEPENDENT MONITORING REPORT:**

# SCREENING AND ASSESSMENT REPORT OF WOMEN ATTENDING BSA (WOMEN SCREENED JANUARY 2007 TO DECEMBER 2008)

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# MEMBERS OF THE BSA ADVISORY GROUP

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#### **EXECUTIVE SUMMARY**

This report presents cross-sectional data for the period July-December 2008 (6 months) and January 2007 to December 2008 (2 years), and trend data from programme inception to December 2008 for all BreastScreen Aotearoa screening and assessment indicators. Treatment indicators are located in a companion report.<sup>1</sup> BreastScreen Aotearoa (BSA) has offered government funded biennial mammography screening for all NZ women aged 50-64 years since 1999. In July 2004 the target age group was extended to include women aged 45-49 years and 65-69 years. Targets are provided for indicators for women aged 50-69 years. Due to the paucity of trial and screening service evidence, there is insufficient data on which to base targets for the screening of women under 50 years at present. Therefore, BSA and provider performance for the 45-49 years age group is documented throughout the report, but there are no specific recommendations. Trend data for key indicators are presented for women aged 50-64 years, however, a new times-series has also been established for the target age group of women aged 50-69 years. Some indicators in this report have 'expected' and 'desirable' targets. In the text of this Executive Summary quoted targets relate to 'expected' target values.

#### 1. Coverage

BSA screened 101,958 women aged 45-69 years over the 6-month period from July to December 2008, of which 76,661 were aged between 50 and 69 years. For women in this age group, the biennial participation was 63.6%, which was below the target of 70%. Of biennial screens, 13.0% were initial screens and 87.0% were subsequent screens. The proportion of initial screens has declined over time, reflecting the maturing BSA programme and the increasing number of women attending for subsequent screens.

For women aged 50-69 years, significantly lower biennial participation was evident for the eligible Maori and Pacific populations (48.7% and 51.7% respectively), compared with the remaining ethnic groups (65.4%). However, biennial coverage in Maori and Pacific groups continues to increase over time.

BSSL continues to exceed the biennial coverage target of 70% reaching 80.2%, and has consistently had higher biennial coverage relative to other lead providers. BSHC has also exceeded the biennial coverage target of 70% for this (and the previous) reporting period reaching 72.5%.

#### Re-screening proportion and timeliness

The proportion of women re-screened for the six-month period for women aged 50-69 years was 85.5% within 27 months (target >85%). Of those who attended for re-screen, 80.1% attended within 20-24 months (target >75%). The 20-24-month re-screen rate was statistically above the target for the previous 6 month period, with most Lead Providers exceeding the target value. Re-screen rates (within 27 months) show increasing trends for most lead providers with the exception of BSM and BSCM.

#### 2. Provision of quality screening and assessment

Most targets were met for indicators relating to the provision of quality screening and assessment for each age group for the 6-month reporting period. For women 50-69 years, the two-year referral to assessment was 9.6% (target <10%) for initial screens, and 3.0% (target <5%) for subsequent screens. BSHC had a 2 year referral to assessment rate for initial screens (13.6%) that was significantly above the range of <10%.

#### False positives and positive predictive value

The proportion of false positives for women aged 50-69 years for the 6 month period was 8.9% for initial screens (target <9%), and 2.4% for subsequent screens (target <4%). The positive predictive value (PPV) for the programme for the 6 month reporting period was 9.1% for initial screens and 17.6% for subsequent screens, for women aged 50-69 years.

#### Technical recall

Technical recall rates for fixed sites achieved the target of <0.5% for BSA and continue to show an improving trend overall (and for the majority of Lead Providers). Expected targets were not met for a number of indicators. Technical

<sup>&</sup>lt;sup>1</sup> Page A, Taylor R. BreastScreen Aotearoa: Independent Monitoring Report -Treatment of women with BSA detected cancers (women screened January 2006-December 2007). BreastScreen Aotearoa: Wellington 2009.

BSA Screening and Assessment Report - Women screened January 2007-December 2008

recall rates for mobile sites exceeded the target value of <3% overall for BSA, and showed increasing disparity between Lead Providers. The reason for high technical recalls for some Lead Providers should be investigated.

#### 3. Early detection of DCIS or invasive breast cancer

#### DCIS and invasive cancer detection rate

A total of 437 cases of invasive cancer and DCIS (combined) were detected through BSA for women 50-69 years in the 6 month reporting period for initial and subsequent screens combined. The BSA cancer detection for the sixmonth period (DCIS and invasive combined) for women 50-69 years was 9.3 per 1,000 for initial screens and 5.2 per 1,000 women screened for subsequent screens.

The biennial cancer detection per 1,000 screens - invasive and DCIS combined - for women aged 50-69 years was 9.4 per 1,000 for initial screens and 5.4 per 1,000 for subsequent screens. This represented 1,704 cancers detected through BSA for the 2-year period. Trends in cancer detection for initial and subsequent screens have remained relatively stable across Lead Providers. BSHC cancer detection has consistently been below the BSA total cancer detection rate, although not significantly different from the average. Declining trends in cancer detection are evident for initial and subsequent screens in BSSL and in subsequent screens only for BSCtoC.

The proportion of DCIS of all cancers for women aged 45-69 over the biennium was 22.6%, ranging from 16.3% to 25.9% across Lead Providers. The proportion of DCIS of all cancers has remained relatively stable for BSA overall.

#### *Invasive cancer detection rate*

The BSA biennial invasive cancer detection for women aged 50-69 years was 6.9 per 1,000 women screened for initial screens (achieving the target of  $\ge$  6.1 per 1,000) and 4.0 per 1,000 for subsequent screens (achieving the target of  $\ge$  3.45 per 1,000). This represented 1,261 invasive cancers detected by BSA for the 2-year reporting period. The overall proportion of node negative cancers (of all invasive cancers) was 74.1% for initial screens (target >70%) and 78.2% for subsequent screens (target >75%).

#### *Invasive cancer detected* $\leq 10mm$

For women 50-69 years the overall proportion of screen detected invasive cancers  $\leq 10$ mm in size for the 2-year period was 26.7% for initial screens (target  $\geq 25\%$ ) and 41.1% for subsequent screens (target  $\geq 30\%$ ). The corresponding detection rates per 10,000 women screened for invasive cancers  $\leq 10$ mm were better than the target value at 18.3 for initial screens (target  $\geq 15.2$  per 10,000 screens) and 16.6 for subsequent screens (target  $\geq 10.45$  per 10,000 screens).

#### *Invasive cancer detected* <15mm

For women 50-69 years the overall proportion of screen detected invasive cancers <15mm in size for the 2-year reporting period was 42.4% for initial screens (which continues to be significantly below the target value of >50%) and 60.4% for subsequent screens (exceeding the target of >50%). The corresponding detection rates per 10,000 women screened for invasive cancers <15mm were on target at 29.1 for initial screens (target value >30.5 per 10,000 screens) and 24.4 for subsequent screens (target value >17.3 per 10,000 screens).

#### 4. Provision of an appropriate and acceptable service

The majority of targets for indicators relating to the provision of an appropriate and acceptable service were met.

The overall proportion of women in the 6-month period who were notified of screening results within 10 working days was 92.4% for women 50-69 years, which was higher than the target value of  $\geq$  90%. The overall proportion was lower than previous report period, predominantly due to declines in BSM (from 96.5 to 74.5) and BSAL (from 94.2 to 89.3%).

#### Assessment

The overall proportion of women offered a first assessment within 15 working days for the biennium for women 50-69 years was 80.7%, which was below the target value of 90%. Trend data for this indicator show stable estimates for the programme overall, but a continued significant decline in BSHC, and also recent declines in BSM and BSAL.

Time taken from assessment to final diagnostic biopsy

The proportion of women receiving an open biopsy within 15 working days (of those who required an open biopsy) was below the target value of 90%. The biennial proportion for this indicator for women 50-69 years was 62.2%. For the 6-month period the overall proportion receiving an open biopsy within 15 working days was 56.0% for women 50-69 years.

The proportion of women who received their final diagnostic biopsy results within 5 working days was 86.2%, which was on target for this indicator (target value 90%). The overall proportion for the 6-month period was 88.4% for women aged 50-69 years.

#### 5. Specific summary comments for each Lead Provider

#### BreastScreen Waitemata and North

BSWN were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSWN significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, invasive cancer detection for subsequent screens, technical recall rates at fixed sites, the percentage of rejected films at fixed sites and benign open biopsy rates in women attending for a subsequent screen. Targets were not achieved for overall coverage (61.6%, target value 70%), Pacific coverage (60.0%, target value 70%) and Maori coverage (58.6%, target value 70%), and also technical recall rates for mobile sites (4.9%, target value <3%), the percentage of women offered first assessment within 15 working days (80.2%, target 90%), the percentage of women receiving an open biopsy within 15 working days (47.1%, target 90%), continuing a marked decreasing trend, and the proportion of women receiving final biopsy results within 5 working days (79.0%, target 90%), which also continues a decreasing trend from previous periods.

#### BreastScreen Counties Manukau

BSCM were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSCM significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, benign open biopsy rates in women attending for a subsequent screen, and technical recall rates at fixed sites and the percentage of rejected films (fixed and mobile) sites. Targets were not achieved for overall coverage (52.9%, target value 70%), Pacific coverage (49.8%, target value 70%) and Maori coverage (47.9%, target value 70%), and also the percentage of women eligible for re-screen who were re-screened within 27 months (78.0%, target 85%), and percentage of women offered first assessment within 15 working days (75.5%, target 90%).

#### BreastScreen Auckland Limited

BSAL were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSAL significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, technical recall rates at fixed sites the percentage of rejected films at fixed and mobile sites and benign open biopsy rates in women attending for a subsequent screen. Targets were not achieved for overall coverage (49.5%, target value 70%), Pacific coverage (52.7%, target value 70%) and Maori coverage (41.4%, target value 70%), and also the percentage of women eligible for re-screen who were rescreened within 27 months (75.2%, target 85%), technical recall rates for mobile sites (3.9%, target value <3%), and the percentage of women offered first assessment within 15 working days (75.4%, target 90%).

#### BreastScreen Midland

BSM were either on target or exceeded targets for most biennial indicators for women in the target age range of 50-69 years. In particular, BSM significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, invasive cancer detection, technical recall rates at fixed sites, the percentage of rejected films at fixed and mobile sites and benign open biopsy rates in women attending for a subsequent screen. Targets were not achieved for overall coverage (56.9%, target value 70%), Pacific coverage (45.9%, target value 70%) and Maori coverage (39.3%, target value 70%), and also the percentage of women eligible for re-screen who were re-screened within 27 months (74.8%, target 85%) and 20-24 months (66.6%, target 75%), technical recall rates for mobile sites (4.3%, target value <3%), the percentage of screen detected invasive cancers <15 mm for initial screens (30.3%, target value >50%), the percentage of women receiving needle biopsy within 5 working days (81.7%, target 90%), continuing a decreasing trend from previous reporting periods, the percentage of women offered first assessment within 15 working days (79.7%, target 90%), the percentage of women receiving an open biopsy within 15 working days (34.0%, target 90%), and the proportion of women receiving final biopsy results within 5 working days (77.2%, target 90%).

#### BreastScreen Coast to Coast

BSCtoC were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSCtoC significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, benign open biopsy rates, technical recall rates at fixed sites and the percentage of rejected films at fixed and mobile sites. Targets were not achieved for overall coverage (63.8%, target value 70%), Pacific coverage (43.5%, target value 70%) and Maori coverage (45.2%, target value 70%), technical recall rates for mobile sites (3.6%, target value <3%) and also the percentage of women receiving an open biopsy within 15 working days (13.3%, target 90%), continuing a decreasing trend from previous reporting periods. Declining trends in cancer detection are evident for BSCtoC subsequent screens.

#### BreastScreen Central

BSC were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSC significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, invasive cancer detection, the percentage of rejected films at fixed and mobile sites and benign open biopsy rates in women attending for a subsequent screen. Targets were not achieved for overall coverage (64.3%, target value 70%), Pacific coverage (43.2%, target value 70%) and Maori coverage (54.7%, target value 70%), and also technical recall rates for mobile sites (4.2%, target value <3%) and fixed sites (0.7%, target value <0.5%), and the percentage of women receiving an open biopsy within 15 working days (56.5%, target 90%).

#### BreastScreen South Limited

BSSL were either on target or exceeded targets for all biennial indicators for women in the target age range of 50-69 years. In particular, BSSL significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, benign open biopsy rates, technical recall rates at fixed and mobile sites and the percentage of rejected films for both mobile and fixed sites. The target was not achieved for the percentage of women receiving a needle biopsy within 5 working days of assessment (84.8%, target 90%) which continues a decreasing trend from previous reporting periods. Declining trends in cancer detection are evident for initial and subsequent screens in BSSL.

#### BreastScreen Health Care

BSHC were either on target or exceeded targets for most biennial indicators for women in the target age range of 50-69 years. In particular, BSHC significantly exceeded targets for the percentage of cancers from referral to assessment in women attending for a subsequent screen, benign open biopsy rate for women attending for a subsequent screen, and the percentage of rejected films for both mobile and fixed sites. Targets were not achieved for Maori coverage (55.2%, target value 70%), the percentage of women eligible for re-screen who were re-screened within 20-24 months (62.9%, target 75%), technical recall rates for mobile sites (4.4%, target value <3%), continuing a marked increasing trend from previous reporting periods, and false positive rates for initial screens (12.6%, target <9%). Additional targets not achieved included the percentage of women referred to assessment for initial screens (13.6%, target <10%) continuing a marked increasing trend from previous reporting periods, the percentage of false positives as a percentage of women screened for initial screens (12.6%, target value <9%) the percentage of cancers from referral to assessment for initial screens (4.2%, target  $\geq$ 9%), the estimated specificity (the proportion of women without breast cancer at screening who have a negative screen result) for initial screens (87.6%, target value  $\geq$ 93%) and the percentage of women offered first assessment within 15 working days (41.9%, target 90%). In addition, BSHC cancer detection has consistently been below the BSA total cancer detection rate, although not significantly different from the average.

#### 6. Conclusion

BSA is a population-based mammography screening programme that has participation rates across the target age group 50-69 years approaching the target of 70%, notwithstanding associated service capacity constraints related to the recent age extension into the 45-49 and 65-69 year age groups. Coverage rates lower than the target value can be attributed to the significantly lower coverage in Maori and Pacific groups. Overall, targets for key indicators are

being exceeded, or are close to being achieved. There is variation for some indicators across Lead Providers. Areas where target values were not met by BSA in the period covered in this report, and where differences between observed and expected values were of greatest magnitude, included:

- Coverage for Maori and Pacific groups (1a.7)
- Technical recall rates for mobile sites (2b.2)
- Percentage receiving an open biopsy within 15 working days (5c.2)
- Percentage offered first assessment appointment within 15 working days (5b)

### BSA ADVISORY GROUP COMMENTS AND RECOMMENDATIONS

#### 1. Coverage

The BSA Advisory Group is pleased to note the upward trend in coverage but, also notes that despite increases, the overall coverage is still below the target of 70%. Also of concern are the disparities in coverage for Maori and Pacific women.

The BSA Advisory Group makes the following recommendations:

- the NSU is asked to review the numerous points of contact before a women is screened in order to minimise the time between enrolment and screening
- the NSU should review the denominator populations.

#### 2. Technical Recall Rate

It is noted that there may be differences in recording technical recall across the Lead Providers.

#### 3. Time from Screening to First Offered Assessment

The deteriorating statistics relating to the timeliness for BSHC are of concern to the BSA Advisory Group.

It is therefore recommended that BreastScreen Health Care review the mechanisms available to them to improve timeliness from screening to assessment as a high priority.

#### 4. Timeliness of Open Biopsy

The BSA Advisory Group is still concerned about the failure to meet the target (90%) for the time from assessment to final biopsy.

The recommendation is made that the NSU changes the target to 20 days in line with the recommendation made by the BSA Surgeons UDG. This allows the target to be brought into alignment with the standard time for surgical treatment of confirmed breast cancer cases.

#### 5. <u>Detection of Invasive Cancers < 15 mm</u>

The NSU is asked to clarify the definitions for measurements used in Table 3c. 1. and 3c.2. This would normally be less than or equal to 15mm (to allow for rounding up) rather than less than 15 mm. The NSU should investigate the effect of changing this indicator.

In response to recommendations 2, 3, and 5 above, the BSA Advisory Group will consider Lead Provider feedback on the report template at the next meeting (teleconference, 12 February 2010).

### FOREWORD: BSA MONITORING PROCESS

Data are sent monthly from the eight BreastScreen Aotearoa Lead Providers (LPs) to the Information Directorate of the Ministry of Health. The data are checked by the Information Directorate, amalgamated into a single file, and sent to the National Screening Unit (NSU). The NSU runs further checks and produces performance indicator tables by Lead Provider for the preceding 6 months and preceding 2 years of the reporting period.

The tables are sent to the BSA Independent Monitoring Group (IMG) at the University of Queensland (Australia). The IMG produces an Independent Monitoring Report (IMR) including calculations of confidence intervals (CI's), time trend graphs, an analysis of data against national indicators and targets, explanatory notes and commentary. The IMG can request additional tabulations where it is felt appropriate. The IMG sends the first draft of IMR to NSU for verification and review, after which the IMR is updated.

The updated IMR draft is sent to members of the BSA Advisory Group (AG) prior to a collective meeting, where multidisciplinary and consumer context is added to comments regarding outliers. The draft report is then circulated to LPs for comment and a final version is produced. The NSU publishes the final report on the NSU website.

This BSA Independent Monitoring Report was reviewed by the BSA Advisory Group on 5 November, 2009.

### **TECHNICAL NOTES FOR INTERPRETING THIS REPORT**

#### Presentation of age extension data

As for previous reports, following age extension to women 45-49 years and 65-69 years, this report has aggregated the main eligible age group and presents data for women aged 50-69 years as the target age group. Data for women aged 45-49 years are presented separately. Interpreting trends in this report should take into consideration that indicators for a comparable age group are not available for periods prior to Jul-Dec, 2006. Trend data are presented for women aged 50-64 years for the programme from the first reporting period in 2001 to the June 2006, after which time-series data are broken and a new series has been established for women aged 50-69 years.

#### **Changes to BSA Lead Providers**

BreastScreen Auckland and North was split into 3 separate Lead Providers during previous reporting periods: BSAL, BSCM, BSWN. The following table provides a listing of Lead Providers clarifying these changes, and explains the absence of some data in figures showing programme trends.

Lead Provider	Abbreviation	Inception and period of programme
BreastScreen Auckland and North	BSAN	1999-June 2005
BreastScreen Auckland Limited	BSAL	July, 2005-Present
BreastScreen Counties Manukau	BSCM	October, 2005-Present
BreastScreen Waitemata and North	BSWN	February, 2006-Present
BreastScreen Midland	BSM	1999-Present
BreastScreen Coast to Coast	BSCtoC	1999-Present
BreastScreen Central	BSC	1999-Present
BreastScreen South Limited	BSSL	1999-Present
BreastScreen HealthCare	BSHC	1999-Present

#### Trends in programme indicators

As noted above, this report presents trend data for women aged 50-64 years from the first reporting period in 2001 to the reporting period Jan-Jan 2006. For the reporting period Jul-Dec 2006 onwards a new time series has been established for women aged 50-69 years. This time series aggregates the first biennium of data for women aged 65-69 years with women aged 50-64 years. Given the large number of indicators, and the fact that, for many indicators, large stochastic variations are evident over time (due to small underlying numbers), trend data have been presented for: (1) key programme indicators relating to participation, referral to assessment, and cancer detection; and (2) for other indicators where noteworthy trends were evident. Trend data have not been presented for women aged 45-49 years.

#### **Population denominators**

Population denominators for this report are based on smoothed estimates (by age group and ethnic group). Sixmonthly population denominators are estimates based on weighted interpolation using annual population projections provided for each year. Interpolations are used to reflect population increases (or declines) in each 6-month period and result in more stable estimates for each indicator presented. This ensures that there are no artefactual increases in reported estimates due to the same annual denominator population being applied to changing 6-monthly indicator data. Population estimates for this report, and previous reporting periods (used in trend estimates), are provided in Appendix A and Appendix B.

Projected resident populations in each Lead Provider district for each year were provided by Statistics New Zealand. The projections are based on the 2001 New Zealand Census, assuming medium fertility, medium mortality, medium inter-ethnic mobility and medium migration assumptions. The denominators for each ethnic group are also taken from the Census, and are calculated from projected resident populations in each Lead Provider district, as provided

by Statistics New Zealand. In the Census it is possible to choose more than one ethnic group. Where more than one category has been chosen, priority is given to certain ethnic groups for the purposes of classification. Thus, if a woman chooses more than one category, and one of these is Maori, she is counted as Maori.

#### **Confidence Intervals (CI's)**

95% CI's have been reported for all indicators in this report. From the Central Limit Theorem, the estimate for a particular indicator - for example, invasive cancer detection rate in a 6 month period - is assumed to come from a hypothetical distribution of values for that indicator. The overall average value of this hypothetical distribution is the universal or 'true' invasive cancer detection rate for the population being studied. The 95% confidence interval indicates that there is a 1 in 20 chance that the 'true' population rate (or proportion, or mean) lies outside the range of values contained by the 95% confidence interval. Thus, the wider the 95% confidence interval, the less precise the estimate is to the true population parameter. Additionally, different statistical distributions provide more accurate and appropriate estimations of the 95% confidence intervals, and depend upon the type of indicator being studied, and the frequency of the event. For this report, 95% confidence intervals for rare events occurring in a population have been calculated using the Poisson distribution. For indicators with small numbers where proportions represent cases and non-cases the 95% confidence interval is based on the Exact Binomial distribution.

#### Differences between observed and target values

Both the magnitude of differences, and their statistical significance, are used to assess the relation of observed to target values.

The magnitude of the difference between the observed value and the target value is important in the interpretation of each indicator. In this report, differences of  $\geq 5\%$  in magnitude that are statistically significantly different from the target value, based on 95% confidence intervals, are noted as important differences, and are indicated by ' $\checkmark \checkmark$ ' if better than the target, or '**xx**' if worse than the target. Differences of  $\geq 10\%$  that are statistically significant (from the target value) are indicated by ' $\checkmark \checkmark \checkmark$ ' if better than the target, or '**xxx**' if worse than the target. Differences of <5% in magnitude from the target value and/or differences which are not significantly different from the target value are indicated by ' $\checkmark \checkmark$ ' and are considered 'on target'.

For each indicator, differences in magnitude between the observed value and the target value need to be interpreted in the context and meaning of the indicator under investigation. If the standard is 80% then a 10% difference in magnitude would contain values ranging from 72%-88%. If the standard is 10%, then a 10% difference in magnitude would contain values ranging from 9%-11%. As a guide, slight differences can be considered to be of a relative magnitude of 0-5%, moderate differences of 5-9%, and large differences >10%.

Formal assessment of observed values in comparison to target values do not apply to 45-49 year old women as there is no long term trial data to indicate the achievable and optimal targets for this age group.

Target values relate only to biennial rates for women in the target age-group (50-69 years) for all indicators, and ticks and crosses for 6-month rates are not presented.

#### AT A GLANCE: BIENNIAL INDICATORS FOR WOMEN 50-69 YEARS

Figure 1: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSA as measured by percent difference between observed and target value (Table reference in brackets)



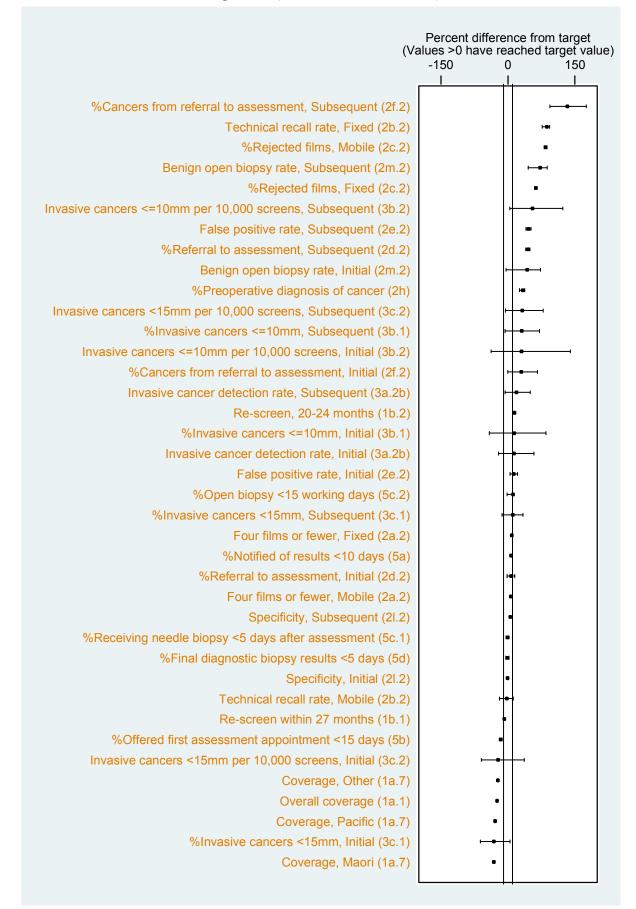
NB: The vertical line represent a  $\pm$  10% difference between the observed value and the target value

Figure 2: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSWN as measured by percent difference between observed and target value (Table reference in brackets).



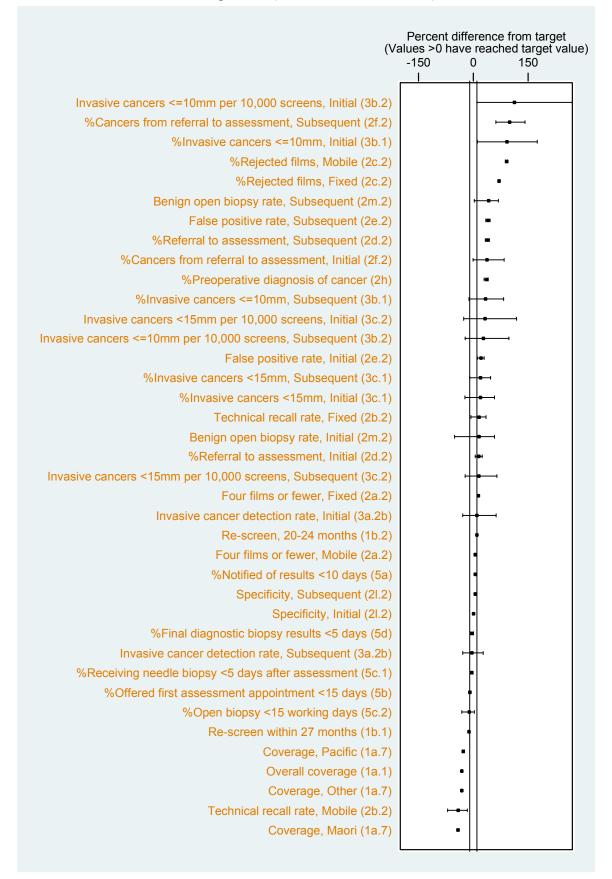
NB: The vertical line represent a <u>+</u> 10% difference between the observed value and the target value BSA Screening and Assessment Report - Women screened January 2007-December 2008

# Figure 3: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSCM as measured by percent difference between observed and target value (Table reference in brackets).



**NB**: The vertical line represent a <u>+</u> 10% difference between the observed value and the target value BSA Screening and Assessment Report - Women screened January 2007-December 2008

Figure 4: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSAL as measured by percent difference between observed and target value (Table reference in brackets).



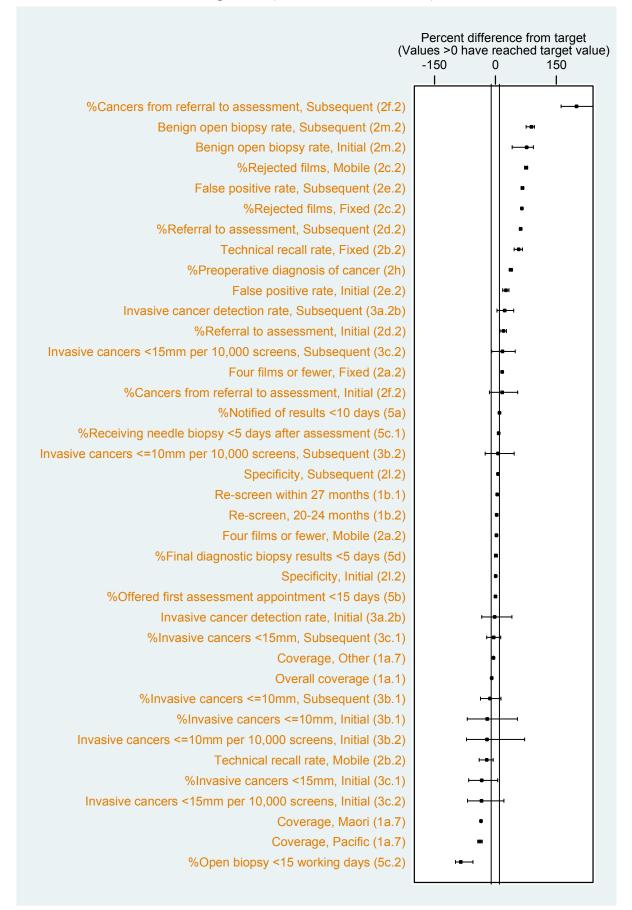
NB: The vertical line represent a + 10% difference between the observed value and the target value

# Figure 5: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSM as measured by percent difference between observed and target value (Table reference in brackets)

	Percent diffe	erence from target
(V	alues >0 have -150	reached target valu 0 150
e cancers <=10mm per 10,000 screens, Subsequent (3b.2)		
%Cancers from referral to assessment, Subsequent (2f.2)		
%Rejected films, Mobile (2c.2)		•
%Rejected films, Fixed (2c.2)		•
%Invasive cancers <=10mm, Subsequent (3b.1)		
ve cancers <15mm per 10,000 screens, Subsequent (3c.2)		
Benign open biopsy rate, Subsequent (2m.2)		
Technical recall rate, Fixed (2b.2)		<b>  101</b>
Benign open biopsy rate, Initial (2m.2)		
%Preoperative diagnosis of cancer (2h)		•
Invasive cancer detection rate, Initial (3a.2b)		┝┼╍╌┥  ┃
%Referral to assessment, Subsequent (2d.2)		•
%Invasive cancers <15mm, Subsequent (3c.1)		
Invasive cancer detection rate, Subsequent (3a.2b)		│₊₊ │
False positive rate, Subsequent (2e.2)		-
Four films or fewer, Fixed (2a.2)		•
Four films or fewer, Mobile (2a.2)		
%Cancers from referral to assessment, Initial (2f.2)		
Specificity, Subsequent (2I.2)		
%Notified of results <10 days (5a)		•
False positive rate, Initial (2e.2)		-
Specificity, Initial (2I.2)		•
%Referral to assessment, Initial (2d.2)		H=1
nvasive cancers <=10mm per 10,000 screens, Initial (3b.2)	⊢ –	
6Receiving needle biopsy <5 days after assessment (5c.1)		+
Re-screen, 20-24 months (1b.2)		+
%Offered first assessment appointment <15 days (5b)		+
Re-screen within 27 months (1b.1)		4
Coverage, Other (1a.7)		•
%Final diagnostic biopsy results <5 days (5d)		•
Overall coverage (1a.1)		•
Invasive cancers <15mm per 10,000 screens, Initial (3c.2)	⊢	╺┼┼╌┥
%Invasive cancers <=10mm, Initial (3b.1)	<u> </u>	•┼┼╌╷ ┃
Coverage, Pacific (1a.7)	·	•
%Invasive cancers <15mm, Initial (3c.1)	<b></b>	-+
Technical recall rate, Mobile (2b.2)	H•	•
Coverage, Maori (1a.7)	•	
%Open biopsy <15 working days (5c.2)	H=-1	

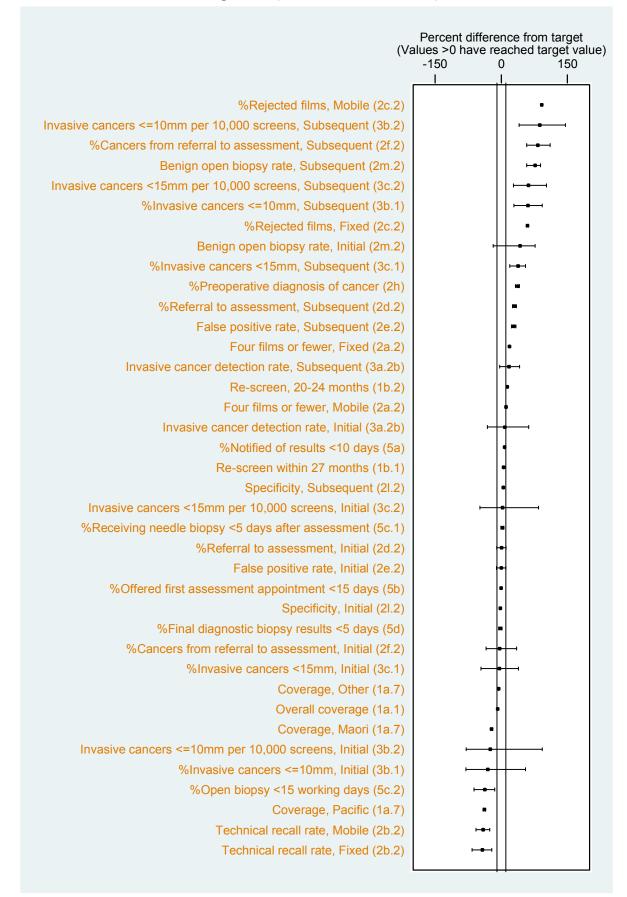
NB: The vertical line represent a ± 10% difference between the observed value and the target value

# Figure 6: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSCtoC as measured by percent difference between observed and target value (Table reference in brackets)



NB: The vertical line represent a <u>+</u> 10% difference between the observed value and the target value BSA Screening and Assessment Report - Women screened January 2007-December 2008

# Figure 7: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSC as measured by percent difference between observed and target value (Table reference in brackets)



NB: The vertical line represent a  $\pm$  10% difference between the observed value and the target value

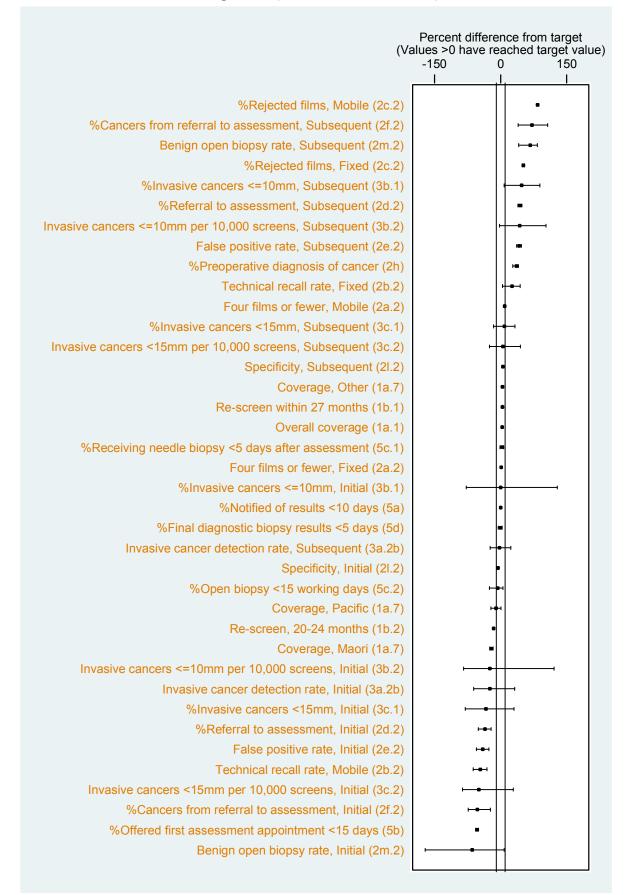
# Figure 8: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSSL as measured by percent difference between observed and target value (Table reference in brackets)

Pe	rcent difference from target
(Values -15	s >0 have reached target values
: 	
ssessment, Subsequent (2f.2)	
10,000 screens, Initial (3b.2)	
6Rejected films, Mobile (2c.2)	•
opsy rate, Subsequent (2m.2)	Het
ppen biopsy rate, Initial (2m.2)	
%Rejected films, Fixed (2c.2)	•
hnical recall rate, Fixed (2b.2)	Hel
al to assessment, Initial (2f.2)	<b>-</b> i
ancers <=10mm, Initial (3b.1)	<b>↓ ↓ ↓ ↓</b>
10,000 screens, Initial (3c.2)	 
sessment, Subsequent (2d.2)	•
sitive rate, Subsequent (2e.2)	•
nical recall rate, Mobile (2b.2)	Her
0 screens, Subsequent (3c.2)	
0 screens, Subsequent (3b.2)	┝-━
ative diagnosis of cancer (2h)	•
alse positive rate, Initial (2e.2)	Her
al to assessment, Initial (2d.2)	Here i
rs <15mm, Subsequent (3c.1)	Her
<=10mm, Subsequent (3b.1)	┝╼╌
r detection rate, Initial (3a.2b)	<b>⊢</b> ∔∎—→
e-screen, 20-24 months (1b.2)	•
cancers <15mm, Initial (3c.1)	r <b>∔-</b> ∎1
ur films or fewer, Fixed (2a.2)	•
Coverage, Other (1a.7)	•
Overall coverage (1a.1)	•
r films or fewer, Mobile (2a.2)	•
tified of results <10 days (5a)	•
tion rate, Subsequent (3a.2b)	H <b>a</b> -I
Coverage, Pacific (1a.7)	+
creen within 27 months (1b.1)	
nt appointment <15 days (5b)	•
Specificity, Subsequent (2I.2)	
ic biopsy results <5 days (5d)	•
Specificity, Initial (2I.2)	•
opsy <15 working days (5c.2)	┝┝━┤
Coverage, Maori (1a.7)	•
days after assessment (5c.1)	

NB: The vertical line represent a  $\pm$  10% difference between the observed value and the target value

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# Figure 9: Biennial indicators 'on target', 'better than target', or 'worse than target' for BSHC as measured by percent difference between observed and target value (Table reference in brackets)



NB: The vertical line represent a  $\pm$  10% difference between the observed value and the target value

### **1. COVERAGE**

#### 1.a.1. Overall coverage of eligible women

*Description:* This is a population-based measure of the percentage of women in the target age group (45-49, 50-69 years) who have had a screening mammogram in the programme

*Target*:  $\geq$  70% of eligible women receive a screen within the programme in the most recent 24-month period

		6 months		2 years				
•	Number of women screened	Eligible Population	% (95%CI)	Number of women screened	Eligible Population	% (95%Cl)		
45-49 years								
BSWN	4,482	26,840	16.7 (16.3-17.2)	14,821	26,840	55.2 (54.6-55.8)		
BSCM	1,943	16,580	11.7 (11.2-12.2)	7,922	16,580	47.8 (47.0-48.5)		
BSAL	2,326	16,690	13.9 (13.4-14.5)	6,795	16,690	40.7 (40.0-41.5)		
BSM	2,902	24,770	11.7 (11.3-12.1)	10,418	24,770	42.1 (41.4-42.7)		
BSCtoC	2,950	20,885	14.1 (13.7-14.6)	10,954	20,885	52.4 (51.8-53.1)		
BSC	2,421	18,125	13.4 (12.9-13.9)	8,688	18,125	47.9 (47.2-48.7)		
BSSL	6,749	27,320	24.7 (24.2-25.2)	22,155	27,320	81.1 (80.6-81.6)		
BSHC	1,524	11,255	13.5 (12.9-14.2)	6,602	11,255	58.7 (57.7-59.6)		
BSA Total	25,297	162,465	15.6 (15.4-15.7)	88,355	162,465	54.4 (54.1-54.6)		
50-69 years								
BSWN	13,076	72,905	17.9 (17.7-18.2)	44,908	72,905	61.6 (61.2-62.0)	***	*
BSCM	6,016	43,490	13.8 (13.5-14.2)	23,012	43,490	52.9 (52.4-53.4)	***	*
BSAL	5,215	40,650	12.8 (12.5-13.2)	20,107	40,650	49.5 (49.0-50.0)	***	*
BSM	12,326	72,060	17.1 (16.8-17.4)	41,001	72,060	56.9 (56.5-57.3)	***	*
BSCtoC	10,987	60,265	18.2 (17.9-18.5)	38,442	60,265	63.8 (63.4-64.2)	××	*
BSC	8,036	47,725	16.8 (16.5-17.2)	30,667	47,725	64.3 (63.8-64.7)	××	*
BSSL	15,226	80,655	18.9 (18.6-19.1)	64,688	80,655	80.2 (79.9-80.5)	$\checkmark\checkmark\checkmark$	*
BSHC	5,779	32,325	17.9 (17.5-18.3)	23,445	32,325	72.5 (72.0-73.0)	$\checkmark$	*
BSA Total	76,661	450,075	17.0 (16.9-17.1)	286,270	450,075	63.6 (63.5-63.7)	* *	*

### Table 1.a.1. Overall coverage of eligible women

Note: Eligible population for 2008 is based on projections from the 2001 census

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

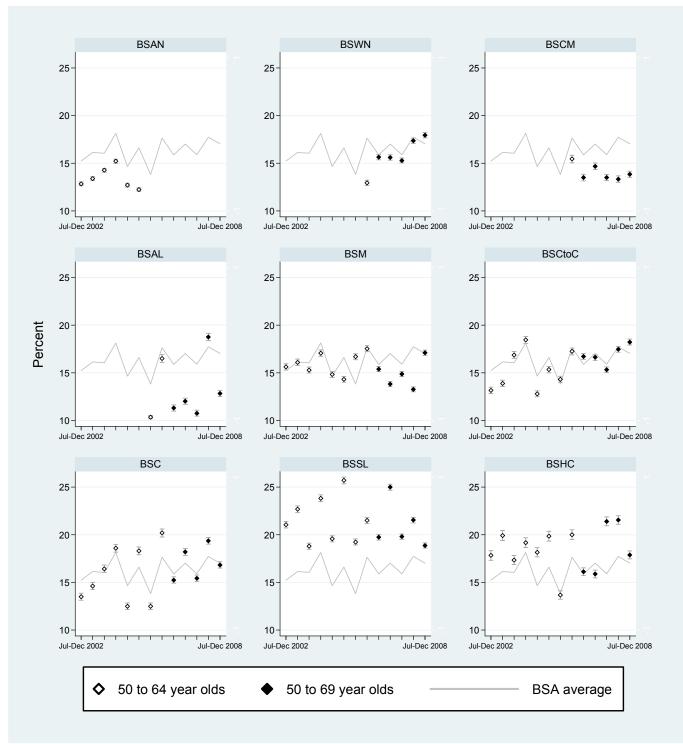
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

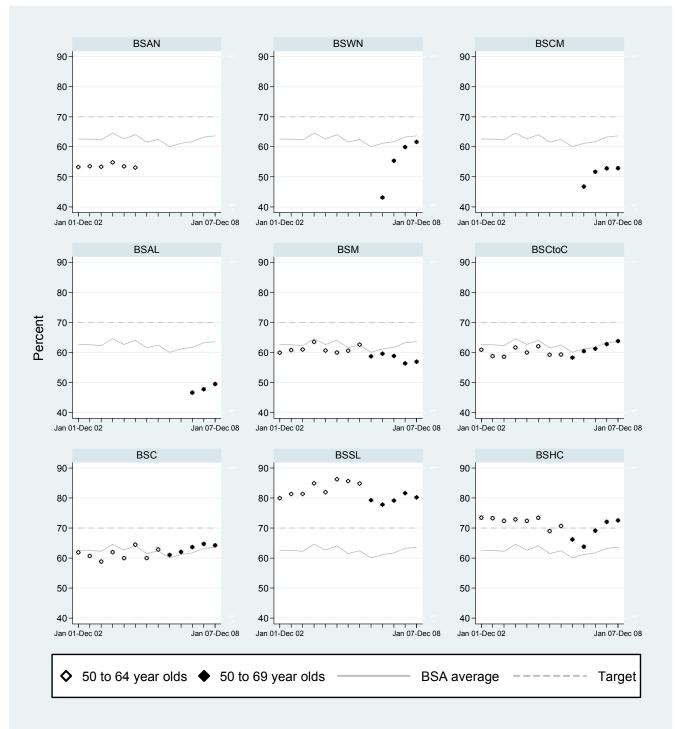
xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

xxx Difference of  $\geq$  10% magnitude worse than target value and statistically significant





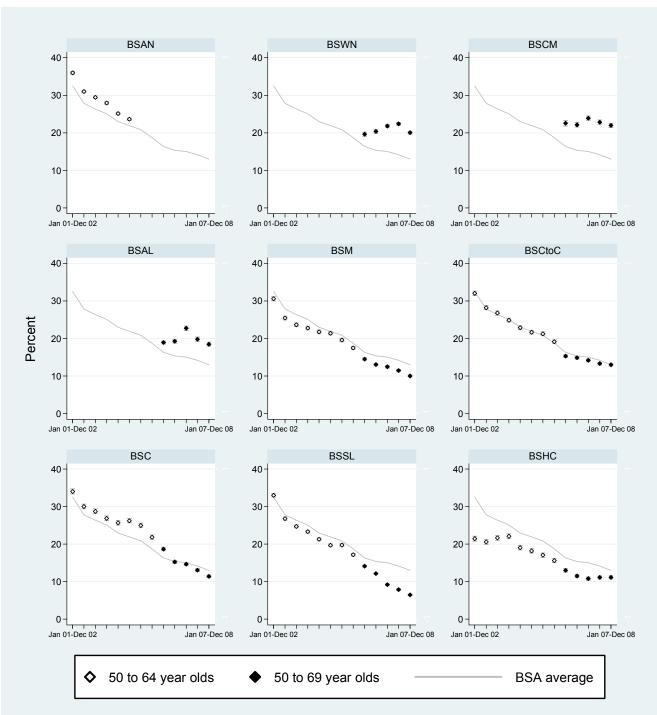




		Number of			Number of	
	Initial	women		Subsequent	women	
	screens	screened	% (95%CI)	screens	screened	% (95%CI)
45-49 years						
BSWN	11,344	14,821	76.5 (75.8-77.2)	3,477	14,821	23.5 (22.8-24.2)
BSCM	7,163	7,922	90.4 (89.7-91.1)	759	7,922	9.6 (8.9-10.3)
BSAL	4,946	6,795	72.8 (71.7-73.8)	1,849	6,795	27.2 (26.2-28.3)
BSM	5,875	10,418	56.4 (55.4-57.3)	4,543	10,418	43.6 (42.7-44.6)
BSCtoC	7,232	10,954	66.0 (65.1-66.9)	3,722	10,954	34.0 (33.1-34.9)
BSC	5,210	8,688	60.0 (58.9-61.0)	3,478	8,688	40.0 (39.0-41.1)
BSSL	11,998	22,155	54.2 (53.5-54.8)	10,157	22,155	45.8 (45.2-46.5)
BSHC	4,110	6,602	62.3 (61.1-63.4)	2,492	6,602	37.7 (36.6-38.9)
BSA Total	57,878	88,355	65.5 (65.2-65.8)	30,477	88,355	34.5 (34.2-34.8)
50-69 years						
BSWN	8,994	44,908	20.0 (19.7-20.4)	35,914	44,908	80.0 (79.6-80.3)
BSCM	5,047	23,012	21.9 (21.4-22.5)	17,965	23,012	78.1 (77.5-78.6)
BSAL	3,711	20,107	18.5 (17.9-19.0)	16,396	20,107	81.5 (81.0-82.1)
BSM	4,104	41,001	10.0 (9.7-10.3)	36,897	41,001	90.0 (89.7-90.3)
BSCtoC	4,986	38,442	13.0 (12.6-13.3)	33,456	38,442	87.0 (86.7-87.4)
BSC	3,493	30,667	11.4 (11.0-11.8)	27,174	30,667	88.6 (88.2-89.0)
BSSL	4,178	64,688	6.5 (6.3-6.7)	60,510	64,688	93.5 (93.3-93.7)
BSHC	2,605	23,445	11.1 (10.7-11.5)	20,840	23,445	88.9 (88.5-89.3)
BSA Total	37,118	286,270	13.0 (12.8-13.1)	249,152	286,270	87.0 (86.9-87.2)

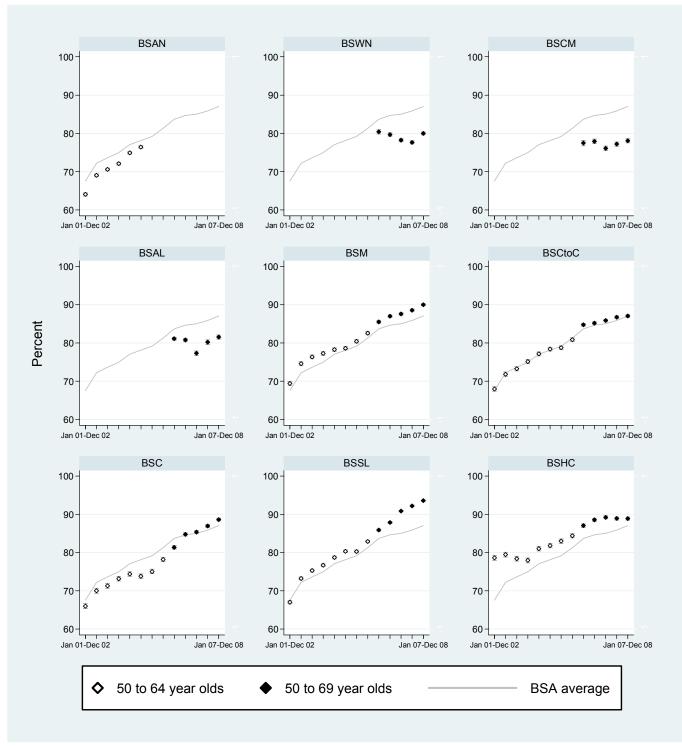
# 1.a.2. The percentage of screens that are initial and subsequent screens

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## Figure 1a.2: Percentage of initial screens for each screening biennium





		Number of			Number of	
	Fixed site	women		Mobile site	women	
	screens	screened	% (95%CI)	screens,	screened	% (95%CI)
45-49 years						
BSWN	12,953	14,821	87.4 (86.9-87.9)	1,868	14,821	12.6 (12.1-13.1)
BSCM	5,416	7,922	68.4 (67.3-69.4)	2,506	7,922	31.6 (30.6-32.7)
BSAL	5,699	6,795	83.9 (83.0-84.7)	1,096	6,795	16.1 (15.3-17.0)
BSM	7,310	10,418	70.2 (69.3-71.0)	3,108	10,418	29.8 (29.0-30.7)
BSCtoC	9,369	10,954	85.5 (84.9-86.2)	1,585	10,954	14.5 (13.8-15.1)
BSC	7,095	8,688	81.7 (80.8-82.5)	1,593	8,688	18.3 (17.5-19.2)
BSSL	19,854	22,155	89.6 (89.2-90.0)	2,301	22,155	10.4 (10.0-10.8)
BSHC	4,069	6,602	61.6 (60.4-62.8)	2,533	6,602	38.4 (37.2-39.6)
BSA Total	71,765	88,355	81.2 (81.0-81.5)	16,590	88,355	18.8 (18.5-19.0)
50-69 years						
BSWN	39,182	44,908	87.2 (86.9-87.6)	5,726	44,908	12.8 (12.4-13.1)
BSCM	17,096	23,012	74.3 (73.7-74.9)	5,916	23,012	25.7 (25.1-26.3)
BSAL	17,042	20,107	84.8 (84.3-85.3)	3,065	20,107	15.2 (14.7-15.7)
BSM	28,082	41,001	68.5 (68.0-68.9)	12,919	41,001	31.5 (31.1-32.0)
BSCtoC	32,980	38,442	85.8 (85.4-86.1)	5,462	38,442	14.2 (13.9-14.6)
BSC	23,272	30,667	75.9 (75.4-76.4)	7,395	30,667	24.1 (23.6-24.6)
BSSL	58,166	64,688	89.9 (89.7-90.1)	6,522	64,688	10.1 (9.9-10.3)
BSHC	15,436	23,445	65.8 (65.2-66.4)	8,009	23,445	34.2 (33.6-34.8)
BSA Total	231,256	286,270	80.8 (80.6-80.9)	55,014	286,270	19.2 (19.1-19.4)

# 1.a.3. The percentage of women screened by type of screening unit

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#### 1.a.4 Age-specific coverage of women aged 50-69 years

		6 months			2 years				
	Number of women screened	Eligible Population	% (95%Cl)	Number of women screened	Eligible Population	% (95%CI)			
50-54 years									
BSWN	3,973	22,575	17.6 (17.1-18.1)	12,952	22,575	57.4 (56.7-58.0)	***	*	
BSCM	1,882	13,655	13.8 (13.2-14.4)	6,796	13,655	49.8 (48.9-50.6)	***	*	
BSAL	1,820	13,620	13.4 (12.8-13.9)	6,178	13,620	45.4 (44.5-46.2)	***	*	
BSM	3,071	22,125	13.9 (13.4-14.3)	10,628	22,125	48.0 (47.4-48.7)	***	*	
BSCtoC	2,843	18,320	15.5 (15.0-16.1)	10,692	18,320	58.4 (57.6-59.1)	***	*	
BSC	2,277	14,855	15.3 (14.8-15.9)	8,589	14,855	57.8 (57.0-58.6)	***	*	
BSSL	4,432	24,460	18.1 (17.6-18.6)	19,692	24,460	80.5 (80.0-81.0)	$\checkmark\checkmark\checkmark$	*	
BSHC	1,718	9,840	17.5 (16.7-18.2)	7,064	9,840	71.8 (70.9-72.7)	$\checkmark$	*	
BSA Total	22,016	139,450	15.8 (15.6-16.0)	82,591	139,450	59.2 (59.0-59.5)	***	*	
55-59 years									
BSWN	3,640	19,765	18.4 (17.9-19.0)	12,405	19,765	62.8 (62.1-63.4)	***	*	
BSCM	1,729	11,980	14.4 (13.8-15.1)	6,542	11,980	54.6 (53.7-55.5)	***	*	
BSAL	1,411	11,240	12.6 (11.9-13.2)	5,962	11,240	53.0 (52.1-54.0)	***	*	
BSM	3,433	19,195	17.9 (17.3-18.4)	10,823	19,195	56.4 (55.7-57.1)	***	*	
BSCtoC	3,137	16,255	19.3 (18.7-19.9)	10,756	16,255	66.2 (65.4-66.9)	* *	*	
BSC	2,266	13,075	17.3 (16.7-18.0)	8,903	13,075	68.1 (67.3-68.9)	$\checkmark$	*	
BSSL	4,136	22,175	18.7 (18.1-19.2)	17,839	22,175	80.4 (79.9-81.0)	$\checkmark\checkmark\checkmark$	*	
BSHC	1,507	8,690	17.3 (16.6-18.2)	6,276	8,690	72.2 (71.3-73.2)	$\checkmark$	*	
BSA Total	21,259	122,375	17.4 (17.2-17.6)	79,506	122,375	65.0 (64.7-65.2)	* *	*	
60-64 years									
BSWN	3,079	17,310	17.8 (17.2-18.4)	11,050	17,310	63.8 (63.1-64.6)	* *	*	
BSCM	1,339	10,175	13.2 (12.5-13.8)	5,584	10,175	54.9 (53.9-55.8)	***	*	
BSAL	1,150	9,030	12.7 (12.1-13.4)	4,692	9,030	52.0 (50.9-53.0)	***	*	
BSM	3,605	16,860	21.4 (20.8-22.0)	10,417	16,860	61.8 (61.0-62.5)	***	*	
BSCtoC	2,649	14,005	18.9 (18.3-19.6)	9,415	14,005	67.2 (66.4-68.0)	$\checkmark$	*	
BSC	1,931	11,145	17.3 (16.6-18.0)	7,529	11,145	67.6 (66.7-68.4)	$\checkmark$	*	
BSSL	3,602	19,025	18.9 (18.4-19.5)	15,266	19,025	80.2 (79.7-80.8)	$\checkmark\checkmark\checkmark$	*	
BSHC	1,403	7,545	18.6 (17.7-19.5)	5,600	7,545	74.2 (73.2-75.2)	$\checkmark\checkmark$	*	
BSA Total	18,758	105,095	17.8 (17.6-18.1)	69,553	105,095	66.2 (65.9-66.5)	* *	*	
65-69 years									
BSWN	2,384	13,255	18.0 (17.3-18.7)	8,501	13,255	64.1 (63.3-65.0)	**	*	
BSCM	1,066	7,680	13.9 (13.1-14.7)	4,090	7,680	53.3 (52.1-54.4)	***	*	
BSAL	834	6,760	12.3 (11.6-13.1)	3,275	6,760	48.4 (47.2-49.6)	***	*	
BSM	2,217	13,880	16.0 (15.4-16.6)	9,133	13,880	65.8 (65.0-66.6)	* *	*	
BSCtoC	2,358	11,685	20.2 (19.5-20.9)	7,579	11,685	64.9 (64.0-65.7)	* *	*	
BSC	1,562	8,650	18.1 (17.3-18.9)	5,646	8,650	65.3 (64.3-66.3)	××	*	
BSSL	3,056	14,995	20.4 (19.7-21.0)	11,891	14,995	79.3 (78.6-79.9)	<b>~ ~ ~</b>	*	
BSHC	1,151	6,250	18.4 (17.5-19.4)	4,505	6,250	72.1 (70.9-73.2)	$\checkmark$	*	
BSA Total	14,628	83,155	17.6 (17.3-17.9)	54,620	83,155	65.7 (65.4-66.0)	××	*	

<b>Table 1.a.4:</b> <i>A</i>	Age-specific	coverage o	of women	aged 5	0-69 vears
				mgen e	

Note: Eligible population for 2008 is based on projections from the 2001 census.

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant xx Difference of  $\ge 5.9\%$  magnitude worse than target value and statistically significant

xxx Difference of ≥ 10% magnitude worse than target value and statistically significant

## 1.a.7 Coverage by ethnicity

## 1.a.7a Coverage by ethnicity, women 45-49 years

		6 months				2 years
	Number of women screened	Eligible population	% (95%CI)	Number of women screened	Eligible population	% (95%CI)
Maori						
BSWN	453	3,400	13.3 (12.2-14.5)	1,550	3,400	45.6 (43.9-47.3)
BSCM	220	2,350	9.4 (8.2-10.6)	904	2,350	38.5 (36.5-40.5)
BSAL	155	1,160	13.4 (11.5-15.5)	450	1,160	38.8 (36.0-41.7)
BSM	374	5,230	7.2 (6.5-7.9)	1,399	5,230	26.7 (25.6-28.0)
BSCtoC	435	4,075	10.7 (9.7-11.7)	1,405	4,075	34.5 (33.0-36.0)
BSC	230	2,015	11.4 (10.1-12.9)	796	2,015	39.5 (37.4-41.7)
BSSL	312	1,545	20.2 (18.2-22.3)	1,025	1,545	66.3 (63.9-68.7)
BSHC	78	720	10.8 (8.7-13.3)	264	720	36.7 (33.1-40.3)
BSA Total	2,257	20,495	11.0 (10.6-11.4)	7,793	20,495	38.0 (37.4-38.7)
Pacific						
BSWN	207	1,210	17.1 (15.0-19.3)	595	1,210	49.2 (46.3-52.0)
BSCM	283	2,670	10.6 (9.5-11.8)	1,224	2,670	45.8 (43.9-47.8)
BSAL	231	1,710	13.5 (11.9-15.2)	776	1,710	45.4 (43.0-47.8)
BSM	20	310	6.5 (4.0-9.8)	102	310	32.9 (27.7-38.4)
BSCtoC	43	310	13.9 (10.2-18.2)	121	310	39.0 (33.6-44.7)
BSC	106	970	10.9 (9.0-13.1)	314	970	32.4 (29.4-35.4)
BSSL	62	305	20.3 (16.0-25.3)	220	305	72.1 (66.7-77.1)
BSHC	19	75	25.3 (16.0-36.7)	42	75	56.0 (44.1-67.5)
BSA Total	971	7,560	12.8 (12.1-13.6)	3,394	7,560	44.9 (43.8-46.0)
Other						
BSWN	3,813	22,230	17.2 (16.7-17.7)	12,648	22,230	56.9 (56.2-57.5)
BSCM	1,440	11,560	12.5 (11.9-13.1)	5,794	11,560	50.1 (49.2-51.0)
BSAL	1,920	13,820	13.9 (13.3-14.5)	5,512	13,820	39.9 (39.1-40.7)
BSM	2,491	19,230	13.0 (12.5-13.4)	8,875	19,230	46.2 (45.4-46.9)
BSCtoC	2,452	16,500	14.9 (14.3-15.4)	9,355	16,500	56.7 (55.9-57.5)
BSC	2,067	15,140	13.7 (13.1-14.2)	7,481	15,140	49.4 (48.6-50.2)
BSSL	6,346	25,470	24.9 (24.4-25.5)	20,749	25,470	81.5 (81.0-81.9)
BSHC	1,416	10,460	13.5 (12.9-14.2)	6,248	10,460	59.7 (58.8-60.7)
BSA Total	21,945	134,410	16.3 (16.1-16.5)	76,662	134,410	57.0 (56.8-57.3)

Table 1.a.7a Coverage by ethnicity women 45-49 years

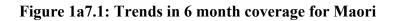
	6 months			2 years				
	Number of women screened	Eligible population	% (95%Cl)	Number of women screened	Eligible population	% (95%CI)		
Maori								
BSWN	1,219	6,670	18.3 (17.4-19.2)	3,907	6,670	58.6 (57.4-59.8)	***	*
BSCM	575	4,750	12.1 (11.2-13.1)	2,276	4,750	47.9 (46.5-49.3)	***	*
BSAL	281	2,560	11.0 (9.8-12.3)	1,061	2,560	41.4 (39.5-43.4)	***	*
BSM	1,023	11,140	9.2 (8.7-9.7)	4,382	11,140	39.3 (38.4-40.3)	***	*
BSCtoC	1,028	8,270	12.4 (11.7-13.2)	3,740	8,270	45.2 (44.1-46.3)	***	*
BSC	601	3,640	16.5 (15.3-17.8)	1,990	3,640	54.7 (53.0-56.3)	***	*
BSSL	540	3,070	17.6 (16.3-19.0)	2,107	3,070	68.6 (67.0-70.3)	$\checkmark$	ns
BSHC	210	1,315	16.0 (14.0-18.1)	726	1,315	55.2 (52.5-57.9)	***	*
BSA Total	5,477	41,415	13.2 (12.9-13.6)	20,189	41,415	48.7 (48.3-49.2)	***	*
Pacific								
BSWN	549	2,585	21.2 (19.7-22.9)	1,552	2,585	60.0 (58.1-61.9)	***	*
BSCM	715	5,800	12.3 (11.5-13.2)	2,888	5,800	49.8 (48.5-51.1)	***	*
BSAL	453	3,550	12.8 (11.7-13.9)	1,872	3,550	52.7 (51.1-54.4)	***	*
BSM	96	750	12.8 (10.5-15.4)	344	750	45.9 (42.3-49.5)	***	*
BSCtoC	94	635	14.8 (12.1-17.8)	276	635	43.5 (39.6-47.4)	***	*
BSC	368	2,385	15.4 (14.0-16.9)	1,030	2,385	43.2 (41.2-45.2)	***	*
BSSL	123	565	21.8 (18.4-25.4)	427	565	75.6 (71.8-79.1)	$\checkmark\checkmark$	*
BSHC	27	150	18.0 (12.2-25.1)	94	150	62.7 (54.4-70.4)	$\checkmark$	ns
BSA Total	2,425	16,420	14.8 (14.2-15.3)	8,483	16,420	51.7 (50.9-52.4)	***	*
Other								
BSWN	11,288	63,650	17.7 (17.4-18.0)	39,401	63,650	61.9 (61.5-62.3)	***	*
BSCM	4,723	32,940	14.3 (14.0-14.7)	17,845	32,940	54.2 (53.6-54.7)	***	*
BSAL	4,459	34,540	12.9 (12.6-13.3)	17,060	34,540	49.4 (48.9-49.9)	***	*
BSM	11,184	60,170	18.6 (18.3-18.9)	36,212	60,170	60.2 (59.8-60.6)	***	*
BSCtoC	9,810	51,360	19.1 (18.8-19.4)	34,289	51,360	66.8 (66.4-67.2)	$\checkmark$	*
BSC	7,012	41,700	16.8 (16.5-17.2)	27,480	41,700	65.9 (65.4-66.4)	××	*
BSSL	14,515	77,020	18.8 (18.6-19.1)	61,888	77,020	80.4 (80.1-80.6)	<b>~ ~ ~</b>	*
BSHC	5,511	30,860	17.9 (17.4-18.3)	22,520	30,860	73.0 (72.5-73.5)	✓	*
BSA Total	68,502	392,240	17.5 (17.3-17.6)	256,695	392,240	65.4 (65.3-65.6)	× ×	*

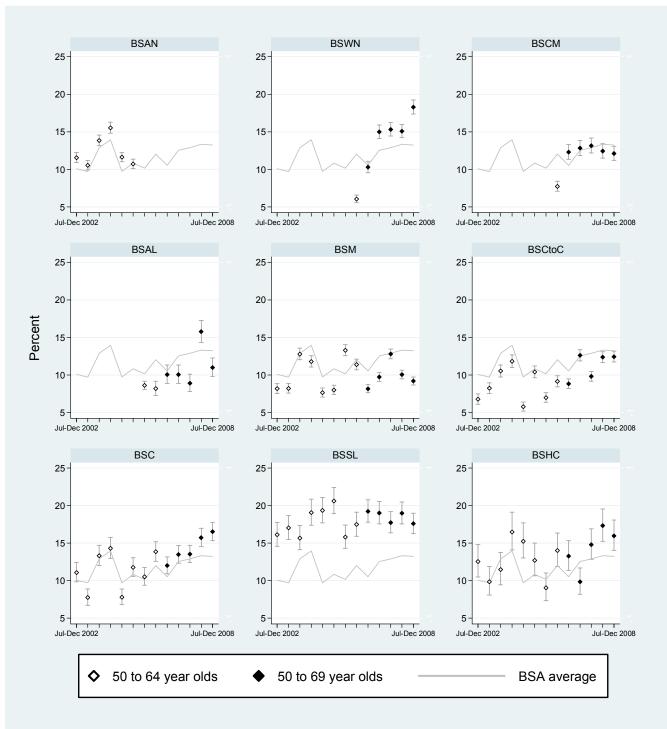
## Table 1.a.7a Coverage by ethnicity women 50-69 years

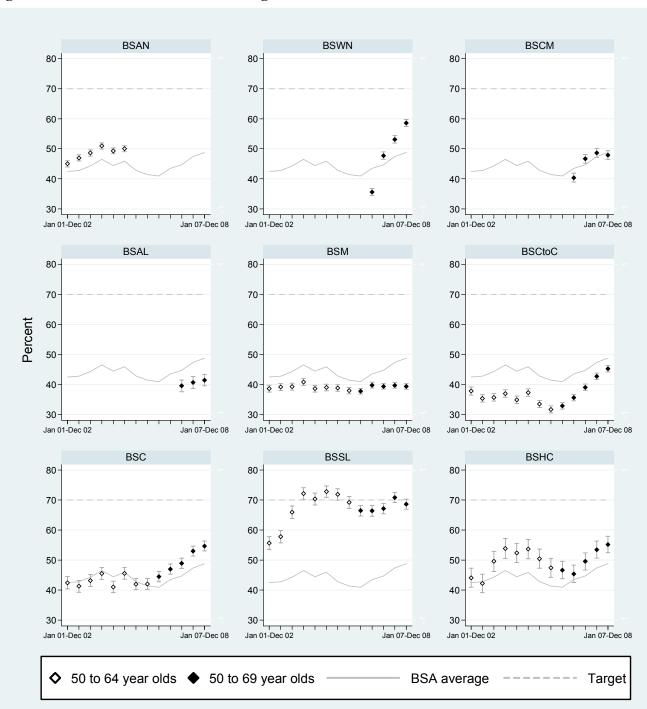
Note: Eligible population for 2008 is based on projections from the 2001 census. \* Statistically different from target value, ns Not significant ✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

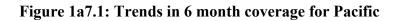
✓ ✓ Difference of ≥ 10% magnitude better than target value and statistically significant xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant xxx Difference of ≥ 10% magnitude worse than target value and statistically significant

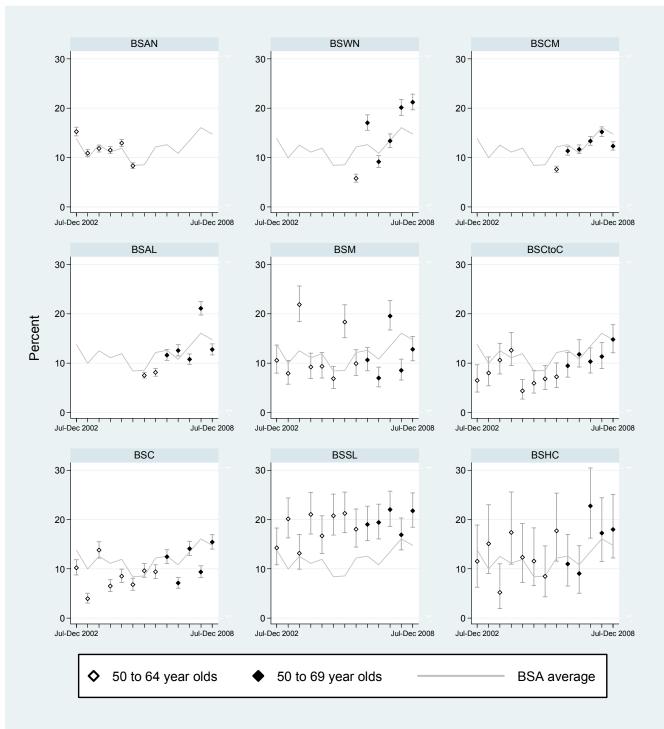


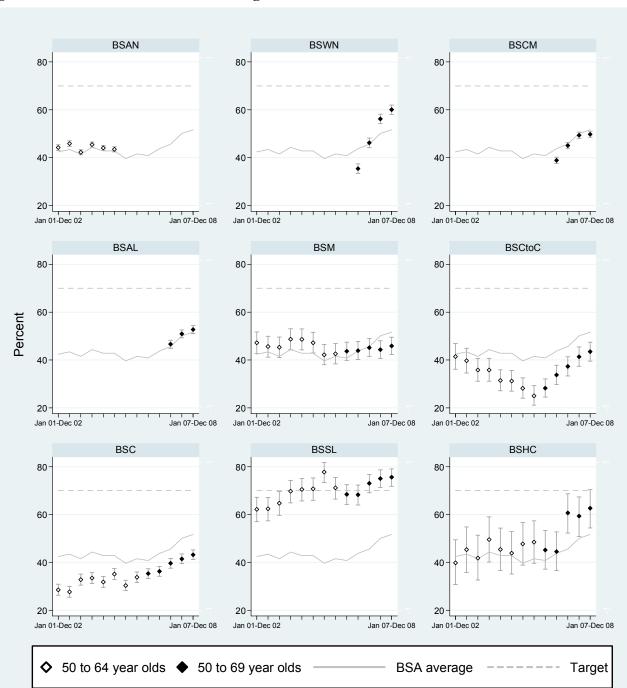




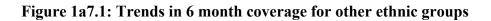
#### Figure 1a7.1: Trends in biennial coverage for Maori

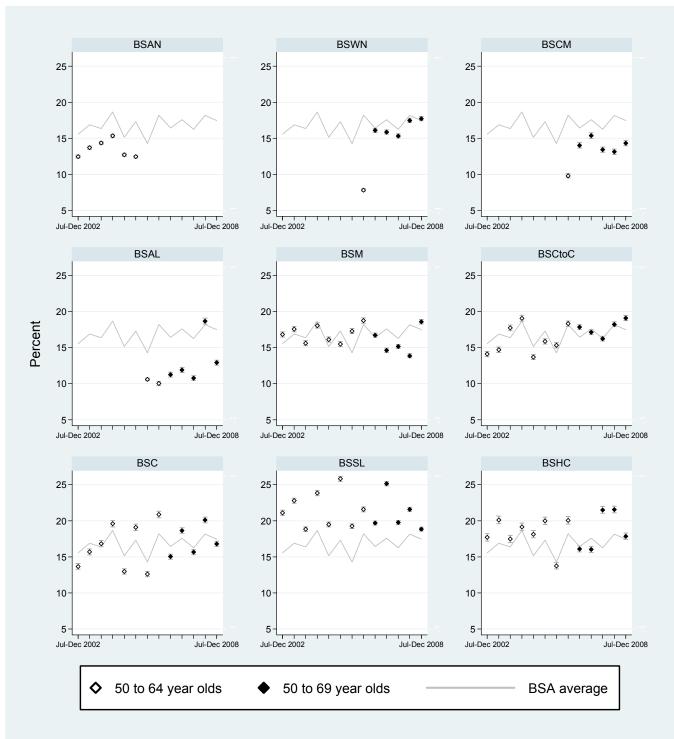


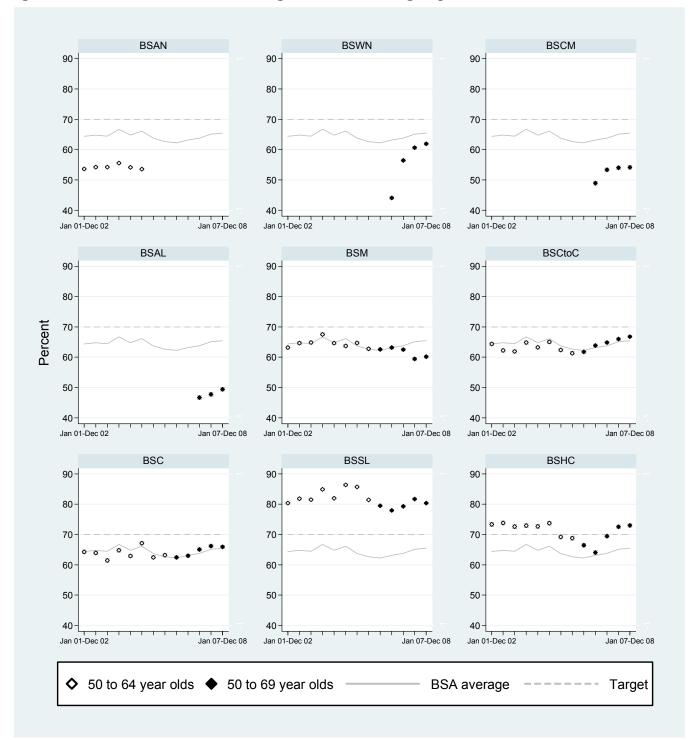




### Figure 1a7.1: Trends in biennial coverage for Pacific







# Figure 1a7.1: Trends in biennial coverage for other ethnic groups

#### 1.b. Routine re-screening

*Description:* The proportion of enrolled eligible women who are re-screened, this measures the acceptability of the programme.

Target:

> 85% of women who are eligible for rescreen are re-screened, within 27 months

>75% of women who return for a screen are re-screened between 20 to 24 months of their previous screen.

Table 1b.1: Percentage of women eligible for re-screen who are re-screened, within 27 months, 45-69
years

		6 months				2 years		
-	Women screened within 27 months	Women eligible for re- screen	% (95%CI)	Women screened within 27 <sup>el</sup> months	Women igible for re- screen	% (95%Cl)		
45-49 years								
BSWN	1,338	2,636	50.8 (48.8-52.7)	1,481	2,984	49.6 (47.8-51.4)		
BSCM	189	565	33.5 (29.6-37.5)	226	635	35.6 (31.9-39.5)		
BSAL	651	1,224	53.2 (50.3-56.0)	1,753	3,821	45.9 (44.3-47.5)		
BSM	1,052	2,652	39.7 (37.8-41.6)	3,734	8,663	43.1 (42.1-44.2)		
BSCtoC	929	1,657	56.1 (53.6-58.5)	3,017	5,721	52.7 (51.4-54.0)		
BSC	1,032	1,783	57.9 (55.5-60.2)	2,647	4,776	55.4 (54.0-56.8)		
BSSL	4,254	7,022	60.6 (59.4-61.7)	8,026	15,497	51.8 (51.0-52.6)		
BSHC	679	1,221	55.6 (52.8-58.4)	2,154	4,250	50.7 (49.2-52.2)		
BSA Total	10,124	18,760	54.0 (53.2-54.7)	23,038	46,347	49.7 (49.3-50.2)		
50-69 years								
BSWN	6,733	7,837	85.9 (85.1-86.7)	8,839	10,314	85.7 (85.0-86.4)	$\checkmark$	*
BSCM	3,490	4,574	76.3 (75.0-77.5)	6,057	7,765	78.0 (77.1-78.9)	××	*
BSAL	3,474	4,048	85.8 (84.7-86.9)	26,076	34,695	75.2 (74.7-75.6)	***	*
BSM	6,058	8,601	70.4 (69.5-71.4)	20,698	27,686	74.8 (74.2-75.3)	***	*
BSCtoC	6,760	7,437	90.9 (90.2-91.5)	20,829	23,501	88.6 (88.2-89.0)	$\checkmark$	*
BSC	4,703	5,274	89.2 (88.3-90.0)	17,800	19,900	89.4 (89.0-89.9)	$\checkmark\checkmark$	*
BSSL	11,286	12,276	91.9 (91.4-92.4)	39,830	43,746	91.0 (90.8-91.3)	$\checkmark\checkmark$	*
BSHC	4,031	4,410	91.4 (90.5-92.2)	13,187	14,886	88.6 (88.1-89.1)	$\checkmark$	*
BSA Total	46,535	54,457	85.5 (85.2-85.7)	153,316	182,493	84.0 (83.8-84.2)	$\checkmark$	*

Note: Denominator for re-screens indexed according to original screening provider.

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

√√√ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

		6 months				2 years		
	Women screened within 20-24 months	Women re- screened within 27 months	% (95% CI)	Women screened within 20-24 months	Women re- screened within 27 months	% (95% CI)		
45-49 years								
BSWN	1,107	1,338	82.7 (80.6-84.7)	1,186	1,481	80.1 (78.0-82.1)		
BSCM	153	189	81.0 (74.6-86.3)	182	226	80.5 (74.8-85.5)		
BSAL	607	651	93.2 (91.0-95.0)	1,528	1,753	87.2 (85.5-88.7)		
BSM	381	1,052	36.2 (33.3-39.2)	2,341	3,734	62.7 (61.1-64.2)		
BSCtoC	655	929	70.5 (67.5-73.4)	2,287	3,017	75.8 (74.2-77.3)		
BSC	834	1,032	80.8 (78.3-83.2)	2,246	2,647	84.9 (83.4-86.2)		
BSSL	3,974	4,254	93.4 (92.6-94.1)	7,531	8,026	93.8 (93.3-94.3)		
BSHC	497	679	73.2 (69.7-76.5)	1,247	2,154	57.9 (55.8-60.0)		
BSA Total	8,208	10,124	81.1 (80.3-81.8)	18,548	23,038	80.5 (80.0-81.0)		
50-69 years								
BSWN	5,708	6,733	84.8 (83.9-85.6)	7,373	8,839	83.4 (82.6-84.2)	$\checkmark \checkmark \checkmark$	*
BSCM	2,906	3,490	83.3 (82.0-84.5)	5,214	6,057	86.1 (85.2-86.9)	$\checkmark \checkmark \checkmark$	*
BSAL	3,196	3,474	92.0 (91.0-92.9)	22,202	26,076	85.1 (84.7-85.6)	$\checkmark \checkmark \checkmark$	*
BSM	2,618	6,058	43.2 (42.0-44.5)	13,793	20,698	66.6 (66.0-67.3)	***	*
BSCtoC	5,099	6,760	75.4 (74.4-76.5)	16,124	20,829	77.4 (76.8-78.0)	$\checkmark$	*
BSC	3,974	4,703	84.5 (83.4-85.5)	15,152	17,800	85.1 (84.6-85.6)	$\checkmark \checkmark \checkmark$	*
BSSL	10,559	11,286	93.6 (93.1-94.0)	37,314	39,830	93.7 (93.4-93.9)	$\checkmark \checkmark \checkmark$	*
BSHC	3,208	4,031	79.6 (78.3-80.8)	8,299	13,187	62.9 (62.1-63.8)	***	*
BSA Total	37,268	46,535	80.1 (79.7-80.4)	125,471	153,316	81.8 (81.6-82.0)	$\checkmark\checkmark$	*

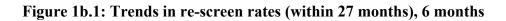
Table 1b.2: Percentage of women who return for a screen who are re-screened within 20-24 months, 45 to 69 years

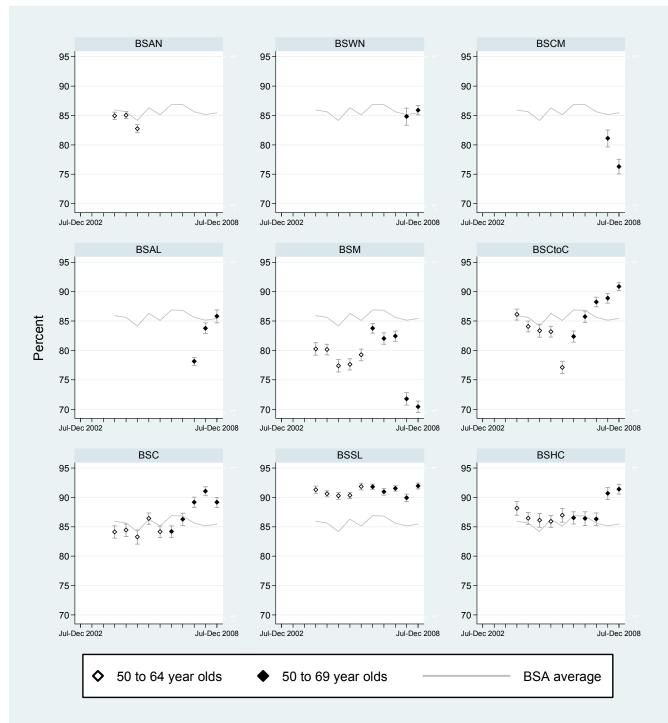
Note: Denominator for re-screens indexed according to original screening provider.

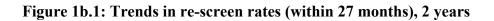
\* Statistically different from target value, ns Not significant ✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

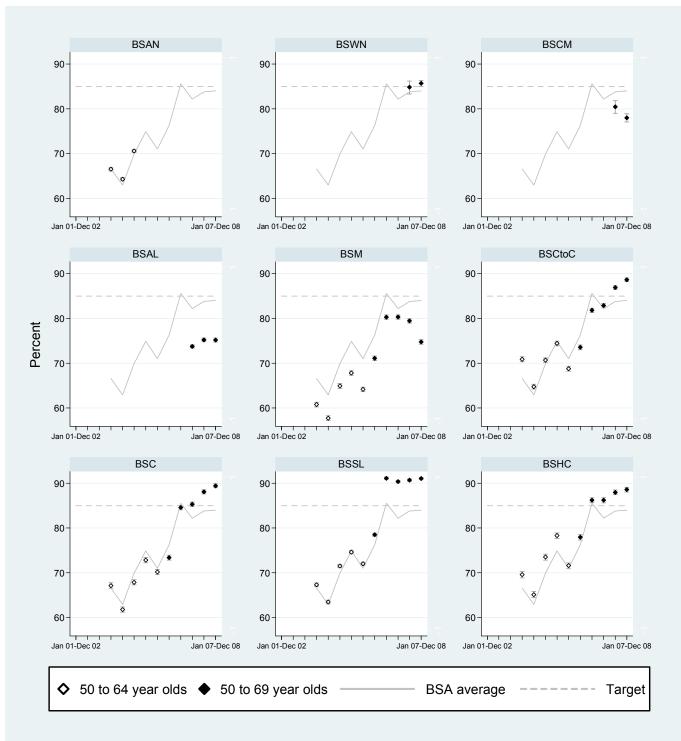
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant xx Difference of  $\ge 5.9\%$  magnitude worse than target value and statistically significant









# 2. PROVISION OF HIGH QUALITY SCREENING AND ASSESSMENT

# 2.a. Screened women who have no more than four films taken

Description:

The percentage of women who have no more than four films taken.

Target:

> 80% of women screened have four films taken or fewer.

#### Table 2.a.1. Percentage of women having 4 films or less by Lead Provider, 6 months

		Fixed site		Μ	lobile site	
•	Women having ≤ 4 films	Women screened	% (95%CI)	Women having ≤ 4 films	Women screened	% (95%Cl)
45-49 years						
BSWN	3,372	3,888	86.7 (85.6-87.8)	518	594	87.2 (84.2-89.8)
BSCM	1,202	1,416	84.9 (82.9-86.7)	460	527	87.3 (84.1-90.0)
BSAL	1,726	1,907	90.5 (89.1-91.8)	347	419	82.8 (78.9-86.3)
BSM	1,790	1,916	93.4 (92.2-94.5)	860	986	87.2 (85.0-89.2)
BSCtoC	2,170	2,368	91.6 (90.5-92.7)	499	582	85.7 (82.6-88.5)
BSC	1,751	1,986	88.2 (86.7-89.6)	384	435	88.3 (84.9-91.1)
BSSL	5,392	5,966	90.4 (89.6-91.1)	675	783	86.2 (83.6-88.5)
BSHC	716	896	79.9 (77.1-82.5)	530	628	84.4 (81.3-87.1)
BSA Total	18,119	20,343	89.1 (88.6-89.5)	4,273	4,954	86.3 (85.3-87.2)
50-69 years						
BSWN	9,830	11,614	84.6 (84.0-85.3)	1,268	1,462	86.7 (84.9-88.4)
BSCM	3,868	4,479	86.4 (85.3-87.4)	1,303	1,537	84.8 (82.9-86.5)
BSAL	3,736	4,222	88.5 (87.5-89.4)	809	993	81.5 (78.9-83.8)
BSM	7,512	8,081	93.0 (92.4-93.5)	3,620	4,245	85.3 (84.2-86.3)
BSCtoC	8,059	8,870	90.9 (90.2-91.4)	1,777	2,117	83.9 (82.3-85.5)
BSC	5,867	6,676	87.9 (87.1-88.7)	1,158	1,360	85.1 (83.1-87.0)
BSSL	12,595	13,935	90.4 (89.9-90.9)	1,109	1,291	85.9 (83.9-87.8)
BSHC	2,948	3,945	74.7 (73.3-76.1)	1,516	1,834	82.7 (80.8-84.4)
BSA Total	54,415	61,822	88.0 (87.8-88.3)	12,560	14,839	84.6 (84.1-85.2)

#### Description:

The percentage of women who have no more than four films taken Target:

> 80% of women screened have four films taken or fewer.

Table 2.a.2. Percentage of women having 4 films or less by Lead Provider, 2 years

		F	Fixed site			Mobile site				
•	Women having ≤ 4 films	Women screened	% (95%Cl)			Women having ≤ 4 films	Women screened	% (95%CI)		
45-49 years										
BSWN	11,252	12,953	86.9 (86.3-87.4)			1,604	1,868	85.9 (84.2-87.4)		
BSCM	4,657	5,416	86.0 (85.0-86.9)			2,142	2,506	85.5 (84.0-86.8)		
BSAL	5,099	5,699	89.5 (88.6-90.3)			896	1,096	81.8 (79.3-84.0)		
BSM	6,878	7,310	94.1 (93.5-94.6)			2,711	3,108	87.2 (86.0-88.4)		
BSCtoC	8,695	9,369	92.8 (92.3-93.3)			1,348	1,585	85.0 (83.2-86.8)		
BSC	6,428	7,095	90.6 (89.9-91.3)			1,442	1,593	90.5 (89.0-91.9)		
BSSL	18,279	19,854	92.1 (91.7-92.4)			2,075	2,301	90.2 (88.9-91.4)		
BSHC	3,347	4,069	82.3 (81.0-83.4)			2,265	2,533	89.4 (88.2-90.6)		
BSA Total	64,635	71,765	90.1 (89.8-90.3)			14,483	16,590	87.3 (86.8-87.8)		
50-69 years										
BSWN	33,956	39,182	86.7 (86.3-87.0)	$\checkmark\checkmark$	*	5,035	5,726	87.9 (87.1-88.8)	$\checkmark\checkmark$	*
BSCM	14,837	17,096	86.8 (86.3-87.3)	$\checkmark\checkmark$	*	5,035	5,916	85.1 (84.2-86.0)	$\checkmark\checkmark$	*
BSAL	15,489	17,042	90.9 (90.4-91.3)	$\checkmark \checkmark \checkmark$	*	2,452	3,065	80.0 (78.5-81.4)	$\checkmark$	ns
BSM	26,402	28,082	94.0 (93.7-94.3)	$\checkmark \checkmark \checkmark$	*	11,029	12,919	85.4 (84.7-86.0)	$\checkmark\checkmark$	*
BSCtoC	30,853	32,980	93.6 (93.3-93.8)	$\checkmark \checkmark \checkmark$	*	4,497	5,462	82.3 (81.3-83.3)	$\checkmark$	*
BSC	22,053	23,272	94.8 (94.5-95.0)	$\checkmark \checkmark \checkmark$	*	6,552	7,395	88.6 (87.9-89.3)	$\checkmark\checkmark\checkmark$	*
BSSL	54,060	58,166	92.9 (92.7-93.1)	$\checkmark \checkmark \checkmark$	*	5,877	6,522	90.1 (89.4-90.8)	$\checkmark\checkmark\checkmark$	*
BSHC	12,536	15,436	81.2 (80.6-81.8)	$\checkmark$	*	7,004	8,009	87.5 (86.7-88.2)	$\checkmark\checkmark$	*
BSA Total	210,186	231,256	90.9 (90.8-91.0)	$\checkmark\checkmark\checkmark$	*	47,481	55,014	86.3 (86.0-86.6)	$\checkmark\checkmark$	*

\* Statistically different from target value, ns Not significant ✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\sqrt{\sqrt{2}}$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant

xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant

# **2.b.** Technical recall rate

*Description:* The number of women who have to return to a screening unit (either Fixed or Mobile) for further films to complete their screening episode, expressed as a percentage of the number screened. *Target:* 

Fixed: <0.5% Mobile: <3%

		Fixed site			Mobile site	
-	Women having technical recall	Women screened	% (95%Cl)	Women having technical recall	Women screened	% (95%CI)
45-49 years						
BSWN	2	3,888	0.1 (0.0-0.2)	16	594	2.7 (1.5-4.4)
BSCM	1	1,416	0.1 (0.0-0.4)	11	527	2.1 (1.0-3.7)
BSAL	7	1,907	0.4 (0.1-0.8)	16	419	3.8 (2.2-6.2)
BSM	6	1,916	0.3 (0.1-0.7)	53	986	5.4 (4.0-7.0)
BSCtoC	2	2,368	0.1 (0.0-0.3)	18	582	3.1 (1.8-4.9)
BSC	27	1,986	1.4 (0.9-2.0)	15	435	3.4 (1.9-5.7)
BSSL	19	5,966	0.3 (0.2-0.5)	21	783	2.7 (1.7-4.1)
BSHC	4	896	0.4 (0.1-1.1)	36	628	5.7 (4.0-7.9)
BSA Total	68	20,343	0.3 (0.3-0.4)	186	4,954	3.8 (3.2-4.3)
50-69 years						
BSWN	2	11,614	0.0 (0.0-0.1)	53	1,462	3.6 (2.7-4.7)
BSCM	5	4,479	0.1 (0.0-0.3)	44	1,537	2.9 (2.1-3.8)
BSAL	14	4,222	0.3 (0.2-0.6)	40	993	4.0 (2.9-5.5)
BSM	33	8,081	0.4 (0.3-0.6)	197	4,245	4.6 (4.0-5.3)
BSCtoC	6	8,870	0.1 (0.0-0.1)	74	2,117	3.5 (2.7-4.4)
BSC	40	6,676	0.6 (0.4-0.8)	66	1,360	4.9 (3.8-6.2)
BSSL	17	13,935	0.1 (0.1-0.2)	24	1,291	1.9 (1.2-2.8)
BSHC	9	3,945	0.2 (0.1-0.4)	120	1,834	6.5 (5.4-7.8)
BSA Total	126	61,822	0.2 (0.2-0.2)	618	14,839	4.2 (3.8-4.5)

Table 2.b.1: Women having technical recall as	a percentage of Women screened, 6 Months
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Poisson 95% Confidence Intervals presented

Description: The number of women who have to return to a screening unit (either Fixed or Mobile) for further films to complete their screening episode, expressed as a percentage of the number screened. Target:

Fixed: <0.5%, Mobile: <3%

			Fixed site			Mobile site					
-	Women having technical recall	Women screened	% (95%CI)			Women having technical recall	Women screened	% (95%Cl)			
45-49 years											
BSWN	12	12,953	0.1 (0.0-0.2)			79	1,868	4.2 (3.3-5.3)			
BSCM	3	5,416	0.1 (0.0-0.2)			72	2,506	2.9 (2.2-3.6)			
BSAL	35	5,699	0.6 (0.4-0.9)			39	1,096	3.6 (2.5-4.9)			
BSM	14	7,310	0.2 (0.1-0.3)			123	3,108	4.0 (3.3-4.7)			
BSCtoC	18	9,369	0.2 (0.1-0.3)			65	1,585	4.1 (3.2-5.2)			
BSC	84	7,095	1.2 (0.9-1.5)			70	1,593	4.4 (3.4-5.6)			
BSSL	53	19,854	0.3 (0.2-0.3)			47	2,301	2.0 (1.5-2.7)			
BSHC	20	4,069	0.5 (0.3-0.8)			119	2,533	4.7 (3.9-5.6)			
BSA Total	239	71,765	0.3 (0.3-0.4)			614	16,590	3.7 (3.4-4.0)			
50-69 years											
BSWN	14	39,182	0.0 (0.0-0.1)	$\checkmark\checkmark\checkmark$	*	280	5,726	4.9 (4.3-5.5)	* * *	*	
BSCM	11	17,096	0.1 (0.0-0.1)	$\checkmark\checkmark\checkmark$	*	182	5,916	3.1 (2.6-3.6)	$\checkmark$	ns	
BSAL	67	17,042	0.4 (0.3-0.5)	$\checkmark\checkmark\checkmark$	*	120	3,065	3.9 (3.2-4.7)	***	*	
BSM	75	28,082	0.3 (0.2-0.3)	$\checkmark\checkmark\checkmark$	*	550	12,919	4.3 (3.9-4.6)	***	*	
BSCtoC	70	32,980	0.2 (0.2-0.3)	$\checkmark\checkmark\checkmark$	*	199	5,462	3.6 (3.2-4.2)	***	*	
BSC	166	23,272	0.7 (0.6-0.8)	***	*	313	7,395	4.2 (3.8-4.7)	***	*	
BSSL	90	58,166	0.2 (0.1-0.2)	$\checkmark\checkmark\checkmark$	*	108	6,522	1.7 (1.4-2.0)	$\checkmark\checkmark\checkmark$	*	
BSHC	57	15,436	0.4 (0.3-0.5)	$\checkmark\checkmark\checkmark$	*	351	8,009	4.4 (3.9-4.9)	***	*	
BSA Total	550	231,256	0.2 (0.2-0.3)	$\checkmark\checkmark\checkmark$	*	2,103	55,014	3.8 (3.7-4.0)	x x x	*	

Table 2.b.2. Women having technical recall	as a percentage of Women screened, 2 years
	as a percentage of Wolfer serverage gears

Poisson 95% Confidence Intervals presented.

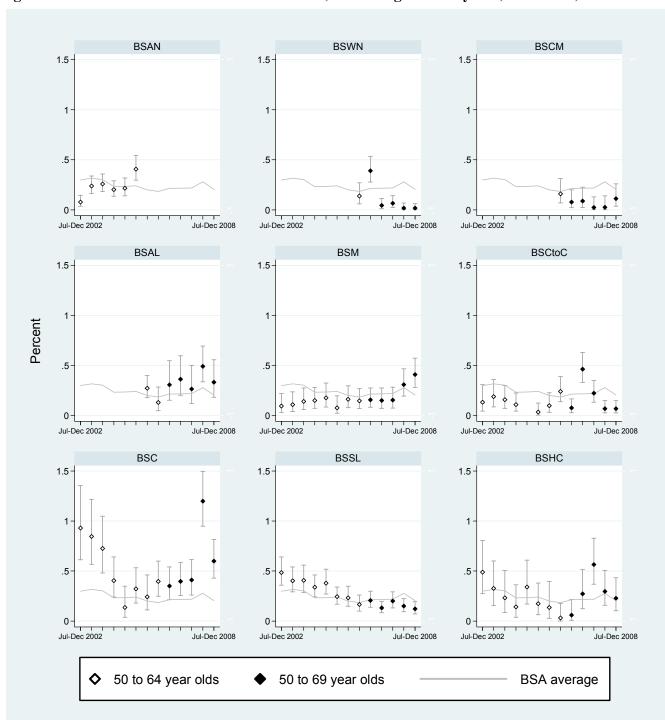
\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant



# Figure 2b1: Technical recall rates for fixed sites, women aged 50-69 years, fixed sites, 6 months

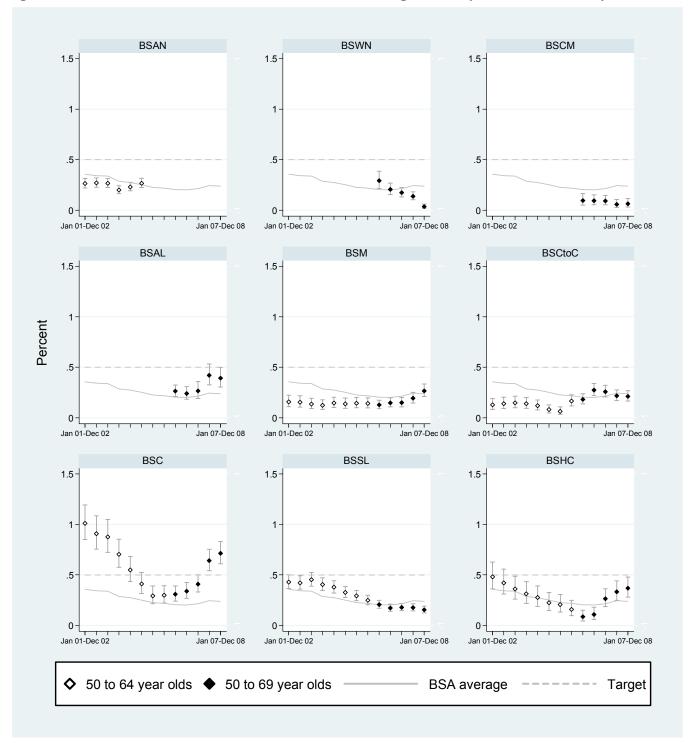
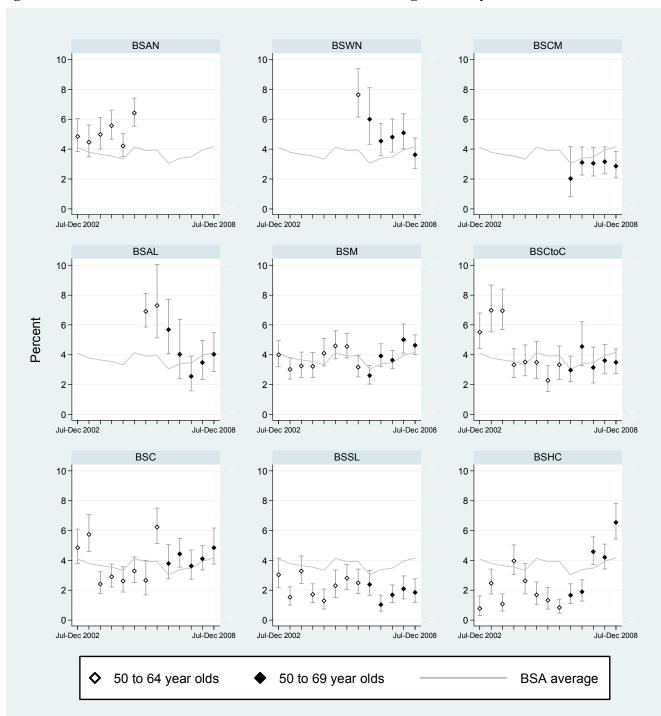
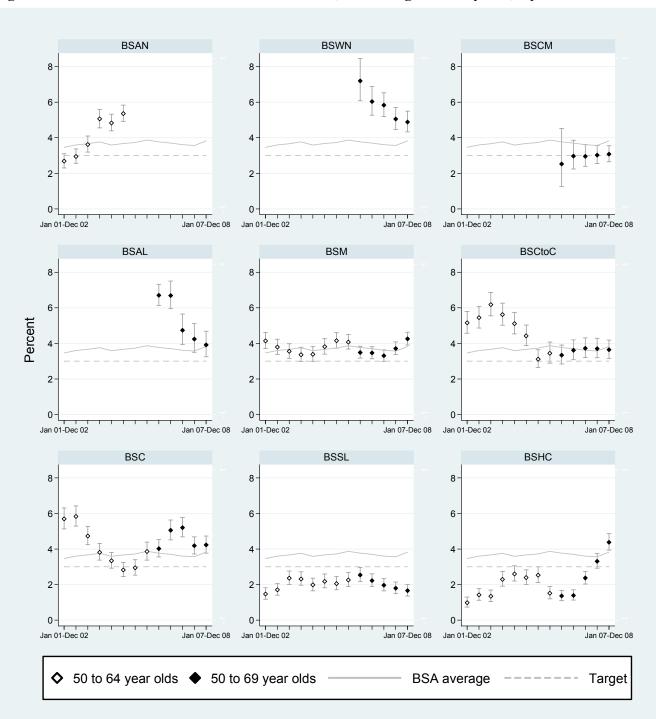


Figure 2b1: Technical recall rates for fixed sites, women aged 50-69 years, fixed sites, 2 years



# Figure 2b.2: Technical recall rates for mobile sites, women aged 50-69 years, 6 months



# 2.c. Technical reject rate

*Description*: The number of films rejected as a percentage of the number of films taken, calculated separately for women who are screened in a fixed unit and a mobile unit.

*Target:* Fixed: <3%

Mobile: <3%

#### 2.c.1. Rejected films as a percentage of total films taken, 6 Months

		Fixed site			Mobile site	
_	Films	Total films		Films	Total films	
	rejected	taken	% (95%CI)	rejected	taken	% (95%CI)
45-49 years						
BSWN	124	16,413	0.8 (0.6-0.9)	23	2,509	0.9 (0.6-1.4)
BSCM	80	6,031	1.3 (1.1-1.7)	14	2,226	0.6 (0.3-1.1)
BSAL	26	7,988	0.3 (0.2-0.5)	2	1,822	0.1 (0.0-0.4)
BSM	72	7,907	0.9 (0.7-1.1)	29	4,154	0.7 (0.5-1.0)
BSCtoC	77	9,767	0.8 (0.6-1.0)	13	2,465	0.5 (0.3-0.9)
BSC	102	8,309	1.2 (1.0-1.5)	4	1,817	0.2 (0.1-0.6)
BSSL	206	24,794	0.8 (0.7-1.0)	38	3,324	1.1 (0.8-1.6)
BSHC	36	3,851	0.9 (0.7-1.3)	33	2,724	1.2 (0.8-1.7)
BSA Total	723	85,060	0.8 (0.8-0.9)	156	21,041	0.7 (0.6-0.9)
50-69 years						
BSWN	418	49,259	0.8 (0.8-0.9)	84	6,208	1.4 (1.1-1.7)
BSCM	209	18,868	1.1 (1.0-1.3)	23	6,586	0.3 (0.2-0.5)
BSAL	109	17,726	0.6 (0.5-0.7)	2	4,297	0.0 (0.0-0.2)
BSM	242	33,255	0.7 (0.6-0.8)	125	18,038	0.7 (0.6-0.8)
BSCtoC	291	36,617	0.8 (0.7-0.9)	68	9,054	0.8 (0.6-1.0)
BSC	326	27,872	1.2 (1.0-1.3)	8	5,735	0.1 (0.1-0.3)
BSSL	420	57,548	0.7 (0.7-0.8)	25	5,459	0.5 (0.3-0.7)
BSHC	205	17,300	1.2 (1.0-1.4)	98	7,951	1.2 (1.0-1.5)
BSA Total	2,220	258,445	0.9 (0.8-0.9)	433	63,328	0.7 (0.6-0.8)

#### Table 2c.1: Rejected films as a percentage of total films taken, 6 months

Poisson 95% Confidence Intervals presented

*Description*: The number of films rejected as a percentage of the number of films taken, calculated separately for women who are screened in a fixed unit and a mobile unit.

*Target:* Fixed: <3% Mobile: <3%

#### 2.c.2. Rejected films as a percentage of total films taken, 2 Years

	F	ixed site					Mobile site			
	Films	Total films				Films	Total films			
	rejected	taken	% (95%CI)			rejected	taken	% (95%CI)		
45-49 years										
BSWN	465	55,814	0.8 (0.8-0.9)			139	8,314	1.7 (1.4-2.0)		
BSCM	260	23,211	1.1 (1.0-1.3)			62	10,761	0.6 (0.4-0.7)		
BSAL	156	25,226	0.6 (0.5-0.7)			6	4,947	0.1 (0.0-0.3)		
BSM	216	30,512	0.7 (0.6-0.8)			62	13,091	0.5 (0.4-0.6)		
BSCtoC	441	39,906	1.1 (1.0-1.2)			46	6,764	0.7 (0.5-0.9)		
BSC	332	30,283	1.1 (1.0-1.2)			12	6,609	0.2 (0.1-0.3)		
BSSL	744	84,523	0.9 (0.8-0.9)			68	9,611	0.7 (0.5-0.9)		
BSHC	221	17,920	1.2 (1.1-1.4)			44	10,611	0.4 (0.3-0.6)		
BSA Total	2,835	307,395	0.9 (0.9-1.0)			439	70,708	0.6 (0.6-0.7)		
50-69 years										
BSWN	1,565	172,596	0.9 (0.9-1.0)	$\checkmark \checkmark \checkmark$	*	414	26,760	1.5 (1.4-1.7)	$\checkmark \checkmark \checkmark$	*
BSCM	817	72,843	1.1 (1.0-1.2)	$\checkmark \checkmark \checkmark$	*	119	25,563	0.5 (0.4-0.6)	$\checkmark \checkmark \checkmark$	*
BSAL	591	77,404	0.8 (0.7-0.8)	$\checkmark \checkmark \checkmark$	*	12	13,683	0.1 (0.0-0.2)	$\checkmark \checkmark \checkmark$	*
BSM	787	116,861	0.7 (0.6-0.7)	$\checkmark \checkmark \checkmark$	*	334	54,808	0.6 (0.5-0.7)	$\checkmark \checkmark \checkmark$	*
BSCtoC	1,469	142,477	1.0 (1.0-1.1)	$\checkmark\checkmark\checkmark$	*	169	23,516	0.7 (0.6-0.8)	$\checkmark\checkmark\checkmark$	*
BSC	1,275	104,637	1.2 (1.2-1.3)	$\checkmark\checkmark\checkmark$	*	77	30,857	0.2 (0.2-0.3)	$\checkmark\checkmark\checkmark$	*
BSSL	2,053	248,790	0.8 (0.8-0.9)	$\checkmark\checkmark\checkmark$	*	136	27,168	0.5 (0.4-0.6)	$\checkmark\checkmark\checkmark$	*
BSHC	1,029	70,800	1.5 (1.4-1.5)	$\checkmark\checkmark\checkmark$	*	161	33,695	0.5 (0.4-0.6)	$\checkmark\checkmark\checkmark$	*
BSA Total	9,586	1,006,408	1.0 (0.9-1.0)	$\checkmark\checkmark\checkmark$	*	1,422	236,050	0.6 (0.6-0.6)	$\checkmark\checkmark\checkmark$	*

Poisson 95% Confidence Intervals presented.

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

#### 2.d. Assessment rate

Description:

Number of women referred to assessment as a percentage of all women screened *Target:* 

Initial (Prevalent) screen: expected value <10% and the desired value is <7% Subsequent (Incident) screen: expected value <5% and the desired value is <4%

#### 2.d.1. Referral to Assessment as a percentage of Women screened, 6 Months

		Initial		S	ubsequent	
	Referral to assessment	Women screened	% (95%CI)	Referral to assessment	Women screened	% (95%CI
45-49 years						
BSWN	291	2,635	11.0 (9.8-12.4)	61	1,847	3.3 (2.5-4.2)
BSCM	129	1,496	8.6 (7.2-10.2)	12	447	2.7 (1.4-4.7)
BSAL	126	1,420	8.9 (7.4-10.6)	47	906	5.2 (3.8-6.9)
BSM	153	1,442	10.6 (9.0-12.4)	76	1,460	5.2 (4.1-6.5)
BSCtoC	115	1,854	6.2 (5.1-7.4)	27	1,096	2.5 (1.6-3.6)
BSC	123	1,267	9.7 (8.1-11.6)	61	1,154	5.3 (4.0-6.8)
BSSL	209	2,782	7.5 (6.5-8.6)	176	3,967	4.4 (3.8-5.1)
BSHC	138	844	16.4 (13.7-19.3)	15	680	2.2 (1.2-3.6)
BSA Total	1,284	13,740	9.3 (8.8-9.9)	475	11,557	4.1 (3.7-4.5)
50-69 years						
BSWN	212	2,159	9.8 (8.5-11.2)	379	10,917	3.5 (3.1-3.8)
BSCM	123	1,166	10.5 (8.8-12.6)	131	4,850	2.7 (2.3-3.2)
BSAL	85	988	8.6 (6.9-10.6)	123	4,227	2.9 (2.4-3.5)
BSM	125	1,049	11.9 (9.9-14.2)	419	11,277	3.7 (3.4-4.1)
BSCtoC	102	1,290	7.9 (6.4-9.6)	189	9,697	1.9 (1.7-2.2)
BSC	102	857	11.9 (9.7-14.4)	247	7,179	3.4 (3.0-3.9)
BSSL	63	893	7.1 (5.4-9.0)	389	14,333	2.7 (2.5-3.0)
BSHC	112	636	17.6 (14.5-21.2)	127	5,143	2.5 (2.1-2.9)
BSA Total	924	9,038	10.2 (9.6-10.9)	2004	67,623	3.0 (2.8-3.1)

Poisson 95% Confidence Intervals presented

#### 2.d.2. Referral to Assessment as a percentage of Women screened, 2 Years

#### Description:

Number of women referred to assessment as a percentage of all women screened *Target:* 

Initial (Prevalent) screen: expected value <10% and the desired value is <7%

Subsequent (Incident) screen: expected value <5% and the desired value is <4%.

	Table 2d.2: Referral to assessment as a	percentage of women screened, 2 years
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		I	nitial				:	Subsequent		
-	Referral to assessment	Women screened	% (95%Cl)			Referral to assessment	Women screened	% (95%CI)		
45-49 years										
BSWN	1,120	11,344	9.9 (9.3-10.5)			136	3,477	3.9 (3.3-4.6)		
BSCM	690	7,163	9.6 (8.9-10.4)			24	759	3.2 (2.0-4.7)		
BSAL	413	4,946	8.4 (7.6-9.2)			83	1,849	4.5 (3.6-5.6)		
BSM	573	5,875	9.8 (9.0-10.6)			222	4,543	4.9 (4.3-5.6)		
BSCtoC	513	7,232	7.1 (6.5-7.7)			96	3,722	2.6 (2.1-3.1)		
BSC	473	5,210	9.1 (8.3-9.9)			164	3,478	4.7 (4.0-5.5)		
BSSL	861	11,998	7.2 (6.7-7.7)			413	10,157	4.1 (3.7-4.5)		
BSHC	547	4,110	13.3 (12.2-14.5)			81	2,492	3.3 (2.6-4.0)		
BSA Total	5,190	57,878	9.0 (8.7-9.2)			1,219	30,477	4.0 (3.8-4.2)		
50-69 years										
BSWN	933	8,994	10.4 (9.7-11.1)	$\checkmark$	ns	1,274	35,914	3.5 (3.4-3.7)	$\checkmark\checkmark\checkmark$	*
BSCM	470	5,047	9.3 (8.5-10.2)	$\checkmark$	ns	496	17,965	2.8 (2.5-3.0)	$\checkmark\checkmark\checkmark$	*
BSAL	339	3,711	9.1 (8.2-10.2)	$\checkmark$	ns	500	16,396	3.0 (2.8-3.3)	$\checkmark\checkmark\checkmark$	*
BSM	421	4,104	10.3 (9.3-11.3)	$\checkmark$	ns	1,355	36,897	3.7 (3.5-3.9)	$\checkmark \checkmark \checkmark$	*
BSCtoC	400	4,986	8.0 (7.3-8.8)	$\checkmark\checkmark\checkmark$	*	633	33,456	1.9 (1.7-2.0)	$\checkmark \checkmark \checkmark$	*
BSC	347	3,493	9.9 (8.9-11.0)	$\checkmark$	ns	953	27,174	3.5 (3.3-3.7)	$\checkmark\checkmark\checkmark$	*
BSSL	292	4,178	7.0 (6.2-7.8)	$\checkmark\checkmark\checkmark$	*	1,617	60,510	2.7 (2.5-2.8)	$\checkmark \checkmark \checkmark$	*
BSHC	353	2,605	13.6 (12.2-15.0)	***	*	584	20,840	2.8 (2.6-3.0)	$\checkmark \checkmark \checkmark$	*
BSA Total	3,555	37,118	9.6 (9.3-9.9)	$\checkmark$	*	7,412	249,152	3.0 (2.9-3.0)	$\checkmark\checkmark\checkmark$	*

Poisson 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

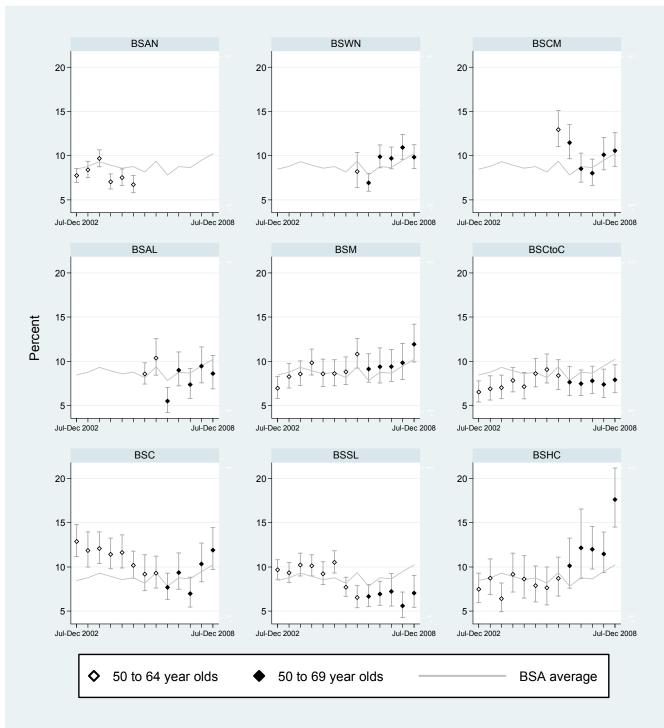
✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

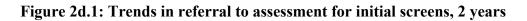
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

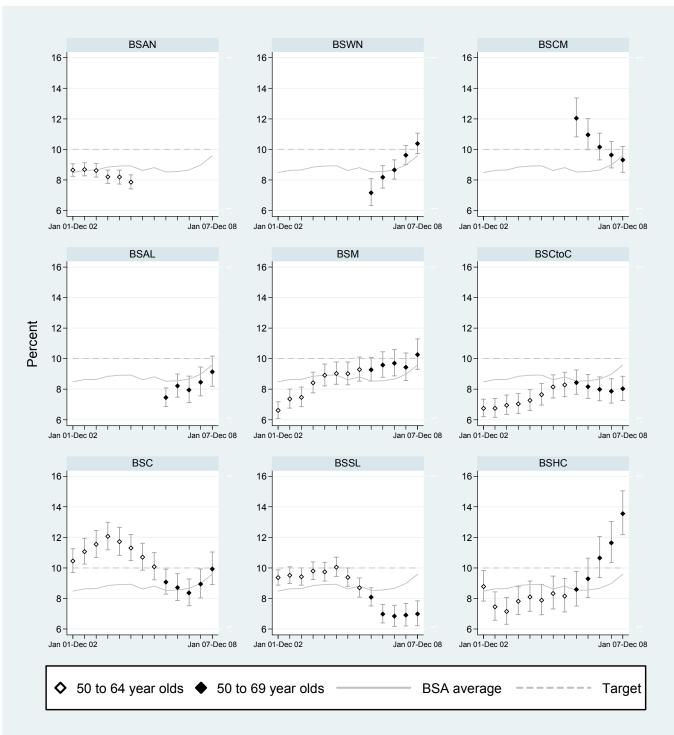
✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

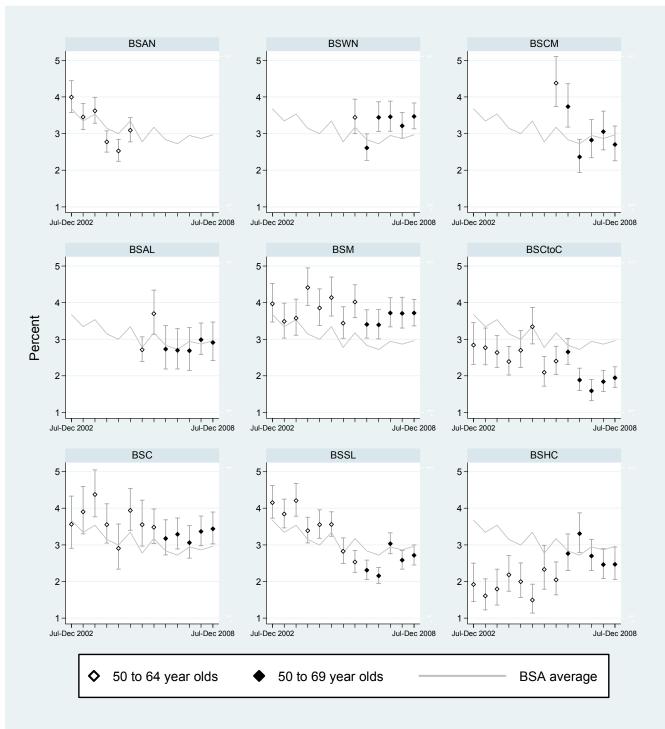












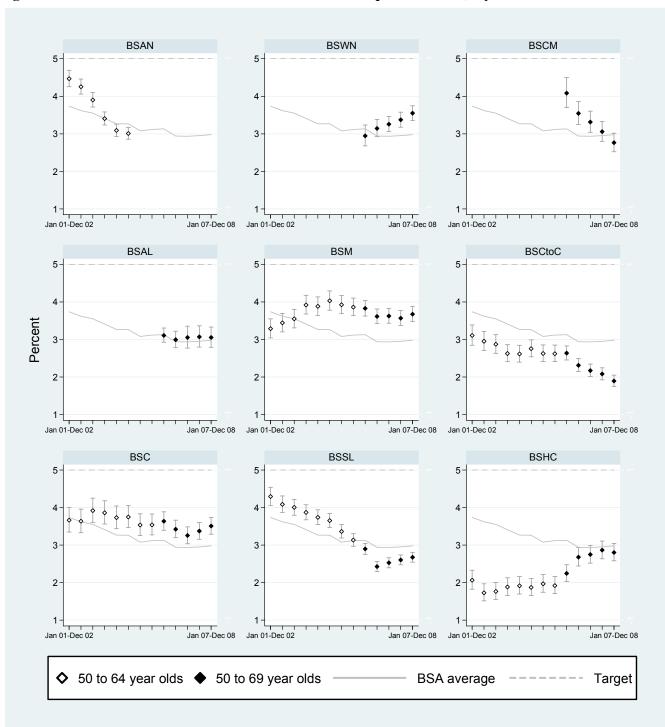


Figure 2d.2: Trends in referral to assessment for subsequent screens, 2 years

### 2.e. False positive rate

#### Description:

Measures the proportion of women who are recalled to assessment, but after assessment are found not to have cancer (DCIS and invasive).

Target:

Initial (Prevalent) screen: expected value <9%, desired target <6%

Subsequent (Incident) screen: expected value <4%, desired target <3%

# 2.e.1. False positives as a percentage of Women screened, 6 months

# Table 2e.1: False positives as a percentage of women screened, 6 months

		Initial		:	Subsequent	
	Number of false positives	Women screened	% (95%Cl)	Number of false positives	Women screened	% (95%CI)
45-49 years						
BSWN	270	2,635	10.2 (9.1-11.5)	54	1,847	2.9 (2.2-3.8)
BSCM	121	1,496	8.1 (6.8-9.6)	12	447	2.7 (1.4-4.6)
BSAL	107	1,420	7.5 (6.2-9.0)	44	906	4.9 (3.6-6.5)
BSM	139	1,442	9.6 (8.2-11.3)	70	1,460	4.8 (3.8-6.0)
BSCtoC	96	1,854	5.2 (4.2-6.3)	20	1,096	1.8 (1.1-2.8)
BSC	114	1,267	9.0 (7.5-10.7)	59	1,154	5.1 (3.9-6.5)
BSSL	193	2,782	6.9 (6.0-7.9)	161	3,967	4.1 (3.5-4.7)
BSHC	131	844	15.5 (13.1-18.1)	15	680	2.2 (1.2-3.6)
BSA Total	1,171	13,740	8.5 (8.1-9.0)	435	11,557	3.8 (3.4-4.1)
50-69 years						
BSWN	186	2,159	8.6 (7.5-9.9)	308	10,917	2.8 (2.5-3.1)
BSCM	106	1,166	9.1 (7.5-10.9)	97	4,850	2.0 (1.6-2.4)
BSAL	74	988	7.5 (5.9-9.3)	95	4,227	2.2 (1.8-2.7)
BSM	108	1,049	10.3 (8.5-12.3)	350	11,277	3.1 (2.8-3.4)
BSCtoC	81	1,290	6.3 (5.0-7.7)	131	9,697	1.4 (1.1-1.6)
BSC	90	857	10.5 (8.5-12.8)	215	7,179	3.0 (2.6-3.4)
BSSL	56	893	6.3 (4.8-8.1)	313	14,333	2.2 (2.0-2.4)
BSHC	106	636	16.7 (13.9-19.8)	105	5,143	2.0 (1.7-2.5)
BSA Total	807	9,038	8.9 (8.3-9.5)	1,614	67,623	2.4 (2.3-2.5)

Exact binomial 95% Confidence Intervals presented

#### 2.e.2. False positives as a percentage of Women screened, 2 years

Description:

Measures the proportion of women who are recalled to assessment, but after assessment are found not to have cancer (DCIS and invasive)

Target:

Initial (Prevalent) screen: expected value <9%, desired target <6%

Subsequent (Incident) screen: expected value <4%, desired target <3%

		Initial					ę	Subsequent		
•	Number of false positives	Women screened	% (95%CI)			Number of false positives	Women screened	% (95%CI)		
45-49 years										
BSWN	1,041	11,344	9.2 (8.7-9.7)			123	3,477	3.5 (2.9-4.2)		
BSCM	648	7,163	9.0 (8.4-9.7)			22	759	2.9 (1.8-4.4)		
BSAL	341	4,946	6.9 (6.2-7.6)			78	1,849	4.2 (3.3-5.2)		
BSM	532	5,875	9.1 (8.3-9.8)			202	4,543	4.4 (3.9-5.1)		
BSCtoC	465	7,232	6.4 (5.9-7.0)			81	3,722	2.2 (1.7-2.7)		
BSC	442	5,210	8.5 (7.7-9.3)			148	3,478	4.3 (3.6-5.0)		
BSSL	807	11,998	6.7 (6.3-7.2)			385	10,157	3.8 (3.4-4.2)		
BSHC	522	4,110	12.7 (11.7-13.8)			72	2,492	2.9 (2.3-3.6)		
BSA Total	4,798	57,878	8.3 (8.1-8.5)			1,111	30,477	3.6 (3.4-3.9)		
50-69 years										
BSWN	822	8,994	9.1 (8.6-9.8)	$\checkmark$	ns	1,036	35,914	2.9 (2.7-3.1)	$\checkmark\checkmark\checkmark$	*
BSCM	394	5,047	7.8 (7.1-8.6)	$\checkmark\checkmark\checkmark$	*	387	17,965	2.2 (1.9-2.4)	$\checkmark \checkmark \checkmark$	*
BSAL	293	3,711	7.9 (7.0-8.8)	$\checkmark\checkmark\checkmark$	*	391	16,396	2.4 (2.2-2.6)	$\checkmark \checkmark \checkmark$	*
BSM	373	4,104	9.1 (8.2-10.0)	$\checkmark$	ns	1,114	36,897	3.0 (2.8-3.2)	$\checkmark \checkmark \checkmark$	*
BSCtoC	332	4,986	6.7 (6.0-7.4)	$\checkmark\checkmark\checkmark$	*	443	33,456	1.3 (1.2-1.5)	$\checkmark \checkmark \checkmark$	*
BSC	314	3,493	9.0 (8.1-10.0)	$\checkmark$	ns	781	27,174	2.9 (2.7-3.1)	$\checkmark \checkmark \checkmark$	*
BSSL	247	4,178	5.9 (5.2-6.7)	$\checkmark\checkmark\checkmark$	*	1,314	60,510	2.2 (2.1-2.3)	$\checkmark \checkmark \checkmark$	*
BSHC	329	2,605	12.6 (11.4-14.0)	***	*	483	20,840	2.3 (2.1-2.5)	$\checkmark \checkmark \checkmark$	*
BSA Total	3,104	37,118	8.4 (8.1-8.6)	$\checkmark\checkmark$	*	5,949	249,152	2.4 (2.3-2.4)	$\checkmark \checkmark \checkmark$	*

Exact binomial 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

# 2.f. Positive predictive value

# 2.f.1. Breast Cancers as a percentage of Referrals to Assessment, 6 Months

Description:

The proportion of women screened positive who are ultimately diagnosed as having cancer (DCIS and invasive) *Target:* 

 $\geq$  9%. The number with diagnosed cancer as a percentage of the number referred to assessment.

Table 2f.1: Cancers as a percentage of referrals to assessment, 6 months
--

		Initial			Subsequent	
-	Number of	Number of		Number of	Number of	
	cancers	referrals	% (95%CI)	cancers	referrals	% (95%CI)
45-49 years						
BSWN	19	291	6.5 (4.0-10.0)	6	61	9.8 (3.7-20.2)
BSCM	7	129	5.4 (2.2-10.9)	0	12	0.0 (0.0-26.5)
BSAL	16	126	12.7 (7.4-19.8)	3	47	6.4 (1.3-17.5)
BSM	12	153	7.8 (4.1-13.3)	5	76	6.6 (2.2-14.7)
BSCtoC	15	115	13.0 (7.5-20.6)	5	27	18.5 (6.3-38.1)
BSC	9	123	7.3 (3.4-13.4)	0	61	0.0 (0.0-5.9)
BSSL	14	209	6.7 (3.7-11.0)	12	176	6.8 (3.6-11.6)
BSHC	5	138	3.6 (1.2-8.3)	0	15	0.0 (0.0-21.8)
BSA Total	97	1,284	7.6 (6.2-9.1)	31	475	6.5 (4.5-9.1)
50-69 years						
BSWN	20	212	9.4 (5.9-14.2)	63	379	16.6 (13.0-20.8)
BSCM	13	123	10.6 (5.7-17.4)	33	131	25.2 (18.0-33.5)
BSAL	8	85	9.4 (4.2-17.7)	26	123	21.1 (14.3-29.4)
BSM	12	125	9.6 (5.1-16.2)	59	419	14.1 (10.9-17.8)
BSCtoC	12	102	11.8 (6.2-19.6)	50	189	26.5 (20.3-33.3)
BSC	10	102	9.8 (4.8-17.3)	29	247	11.7 (8.0-16.4)
BSSL	6	63	9.5 (3.6-19.6)	74	389	19.0 (15.2-23.3)
BSHC	3	112	2.7 (0.6-7.6)	19	127	15.0 (9.3-22.4)
BSA Total	84	924	9.1 (7.3-11.1)	353	2,004	17.6 (16.0-19.4)

Exact binomial 95% Confidence Intervals presented

#### 2.f.2. Breast Cancers as a percentage of Referrals to Assessment, 2 Years

Description:

The proportion of women screened positive who are ultimately diagnosed as having cancer (DCIS and invasive) *Target:* 

 $\geq$  9%. The number with diagnosed cancer as a percentage of the number referred to assessment.

_		Initial					ę	Subsequent		
	Number of cancers	Number of referrals	% (95%Cl)			Number of cancers	Number of referrals	% (95%Cl)		
45-49 years										
BSWN	64	1,120	5.7 (4.4-7.2)			11	136	8.1 (4.1-14.0)		
BSCM	32	690	4.6 (3.2-6.5)			2	24	8.3 (1.0-27.0)		
BSAL	48	413	11.6 (8.7-15.1)			5	83	6.0 (2.0-13.5)		
BSM	36	573	6.3 (4.4-8.6)			17	222	7.7 (4.5-12.0)		
BSCtoC	34	513	6.6 (4.6-9.1)			10	96	10.4 (5.1-18.3)		
BSC	24	473	5.1 (3.3-7.5)			13	164	7.9 (4.3-13.2)		
BSSL	51	861	5.9 (4.4-7.7)			25	413	6.1 (4.0-8.8)		
BSHC	16	547	2.9 (1.7-4.7)			7	81	8.6 (3.5-17.0)		
BSA Total	305	5,190	5.9 (5.3-6.6)			90	1,219	7.4 (6.0-9.0)		
50-69 years										
BSWN	91	933	9.8 (7.9-11.8)	$\checkmark$	ns	216	1,274	17.0 (14.9-19.1)	$\checkmark\checkmark\checkmark$	*
BSCM	55	470	11.7 (8.9-15.0)	$\checkmark$	ns	104	496	21.0 (17.5-24.8)	$\checkmark\checkmark\checkmark$	*
BSAL	35	339	10.3 (7.3-14.1)	$\checkmark$	ns	92	500	18.4 (15.1-22.1)	$\checkmark\checkmark\checkmark$	*
BSM	40	421	9.5 (6.9-12.7)	$\checkmark$	ns	224	1,355	16.5 (14.6-18.6)	$\checkmark\checkmark\checkmark$	*
BSCtoC	42	400	10.5 (7.7-13.9)	$\checkmark$	ns	171	633	27.0 (23.6-30.7)	$\checkmark\checkmark\checkmark$	*
BSC	30	347	8.6 (5.9-12.1)	$\checkmark$	ns	157	953	16.5 (14.2-19.0)	$\checkmark\checkmark\checkmark$	*
BSSL	42	292	14.4 (10.6-18.9)	$\checkmark\checkmark\checkmark$	*	300	1,617	18.6 (16.7-20.5)	$\checkmark\checkmark\checkmark$	*
BSHC	15	353	4.2 (2.4-6.9)	***	*	90	584	15.4 (12.6-18.6)	$\checkmark\checkmark\checkmark$	*
BSA Total	350	3,555	9.8 (8.9-10.9)	$\checkmark$	ns	1,354	7,412	18.3 (17.4-19.2)	$\checkmark\checkmark\checkmark$	*

Table 2f.2: Cancers as a percentage of referrals to assessment, 2 years
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Exact binomial 95% Confidence Intervals presented

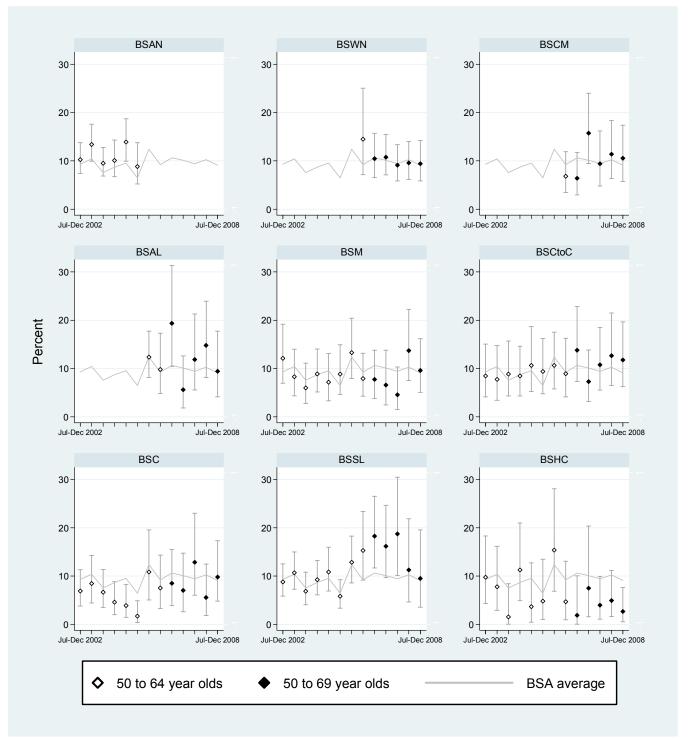
\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

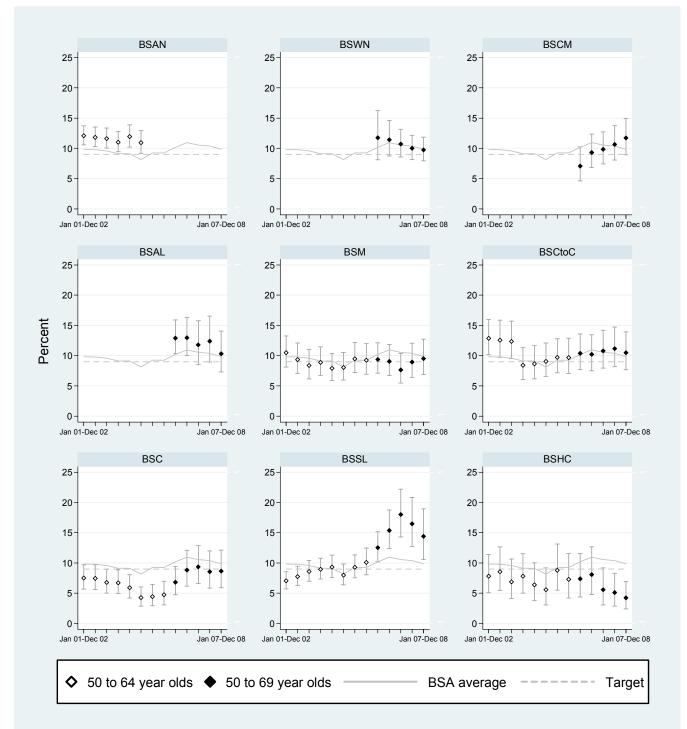
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

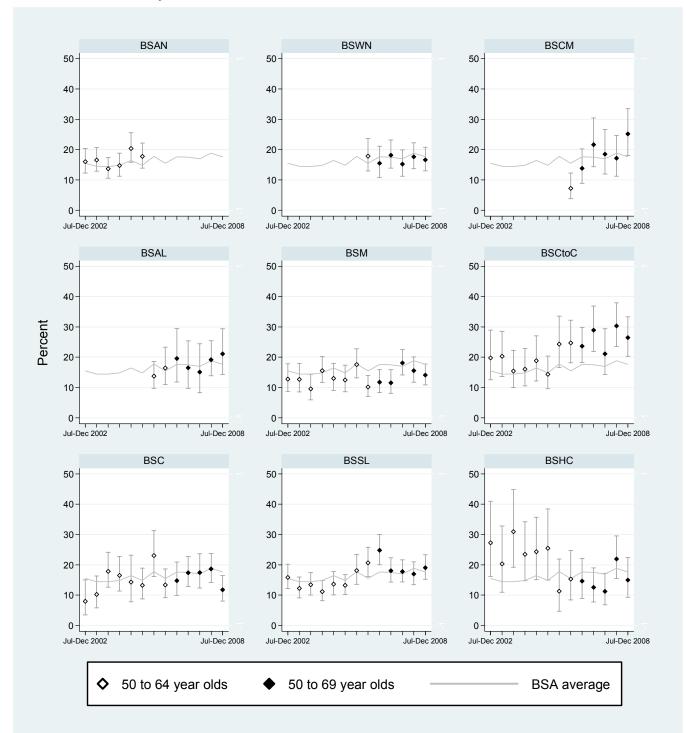
xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant



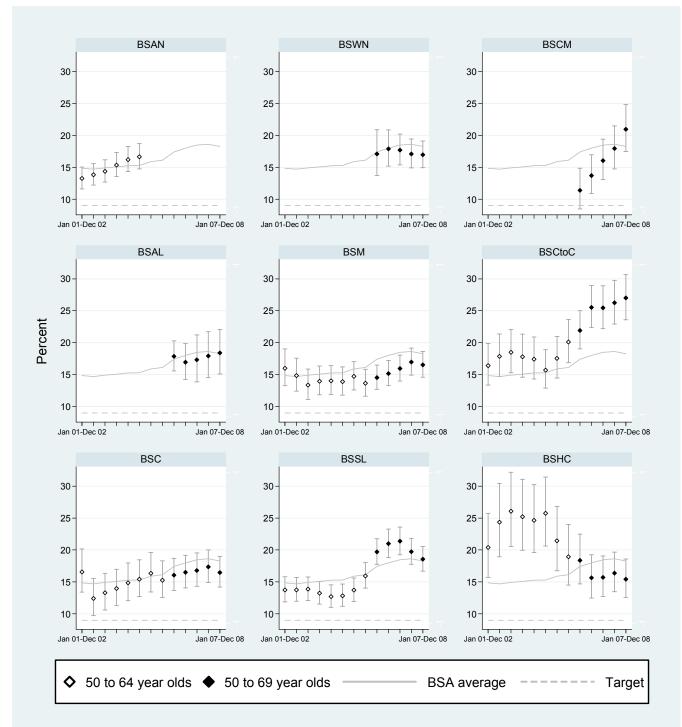
# Figure 2f.1a: DCIS and invasive cancers as a percentage of referrals to assessment for initial screens, women 50-69 years, 6 months



# Figure 2f.1b: DCIS and invasive cancers as a percentage of referrals to assessment for initial screens, women 50-69 years, 2 years



# Figure 2f.2a: DCIS and invasive cancers as a percentage of referrals to assessment for subsequent screens, women 50-69 years, 6 months



# Figure 2f.2b: DCIS and invasive cancers as a percentage of referrals to assessment for subsequent screens, women 50-69 years, 2 years

### 2.g. Benign biopsy weight

Description:

Measures the weight of the open biopsy specimen presented to the pathologist

# 2.g. Benign open biopsies by weight, 2 years, women aged 45-69 years

### Table 2g: Benign open biopsies (OB) weighing < 30 g as a percent of all benign open biopsies, 2 years

	Total										
	benign	<30		30-49		50-69		≥70			
	OBs	gm	% (95% Cls)	gm	% (95% CIs)	gm	% (95% Cls)	gm	% (95% Cls)	Unknown	% (95% Cls)
45-49 years											
BSWN	29	27	93.1 (77.2-99.2)	2	6.9 (0.8-22.8)	0	0.0 (0.0-11.9)	0	0.0 (0.0-11.9)	0	0.0 (0.0-11.9)
BSCM	12	9	75.0 (42.8-94.5)	3	25.0 (5.5-57.2)	0	0.0 (0.0-26.5)	0	0.0 (0.0-26.5)	0	0.0 (0.0-26.5)
BSAL	20	19	95.0 (75.1-99.9)	1	5.0 (0.1-24.9)	0	0.0 (0.0-16.8)	0	0.0 (0.0-16.8)	0	0.0 (0.0-16.8)
BSM	15	10	66.7 (38.4-88.2)	0	0.0 (0.0-21.8)	2	13.3 (1.7-40.5)	0	0.0 (0.0-21.8)	3	20.0 (4.3-48.1)
BSCtoC	8	5	62.5 (24.5-91.5)	0	0.0 (0.0-36.9)	1	12.5 (0.3-52.7)	1	12.5 (0.3-52.7)	1	12.5 (0.3-52.7)
BSC	6	3	50.0 (11.8-88.2)	0	0.0 (0.0-45.9)	0	0.0 (0.0-45.9)	0	0.0 (0.0-45.9)	3	50.0 (11.8-88.2)
BSSL	14	8	57.1 (28.9-82.3)	3	21.4 (4.7-50.8)	2	14.3 (1.8-42.8)	1	7.1 (0.2-33.9)	0	0.0 (0.0-23.2)
BSHC	13	10	76.9 (46.2-95.0)	1	7.7 (0.2-36.0)	0	0.0 (0.0-24.7)	1	7.7 (0.2-36.0)	1	7.7 (0.2-36.0)
BSA Total	117	91	77.8 (69.2-84.9)	10	8.5 (4.2-15.2)	5	4.3 (1.4-9.7)	3	2.6 (0.5-7.3)	8	6.8 (3.0-13.0)
50-69 years											
BSWN	53	45	84.9 (72.4-93.3)	5	9.4 (3.1-20.7)	2	3.8 (0.5-13.0)	1	1.9 (0.0-10.1)	0	0.0 (0.0-6.7)
BSCM	18	14	77.8 (52.4-93.6)	4	22.2 (6.4-47.6)	0	0.0 (0.0-18.5)	0	0.0 (0.0-18.5)	0	0.0 (0.0-18.5)
BSAL	24	21	87.5 (67.6-97.3)	3	12.5 (2.7-32.4)	0	0.0 (0.0-14.2)	0	0.0 (0.0-14.2)	0	0.0 (0.0-14.2)
BSM	35	24	68.6 (50.7-83.1)	4	11.4 (3.2-26.7)	1	2.9 (0.1-14.9)	1	2.9 (0.1-14.9)	5	14.3 (4.8-30.3)
BSCtoC	10	3	30.0 (6.7-65.2)	2	20.0 (2.5-55.6)	0	0.0 (0.0-30.8)	0	0.0 (0.0-30.8)	5	50.0 (18.7-81.3)
BSC	17	15	88.2 (63.6-98.5)	1	5.9 (0.1-28.7)	1	5.9 (0.1-28.7)	0	0.0 (0.0-19.5)	0	0.0 (0.0-19.5)
BSSL	22	16	72.7 (49.8-89.3)	4	18.2 (5.2-40.3)	1	4.5 (0.1-22.8)	1	4.5 (0.1-22.8)	0	0.0 (0.0-15.4)
BSHC	27	19	70.4 (49.8-86.2)	3	11.1 (2.4-29.2)	1	3.7 (0.1-19.0)	1	3.7 (0.1-19.0)	3	11.1 (2.4-29.2)
BSA Total	206	157	76.2 (69.8-81.9)	26	12.6 (8.4-17.9)	6	2.9 (1.1-6.2)	4	1.9 (0.5-4.9)	13	6.3 (3.4-10.5)

Exact binomial 95% Confidence Intervals presented

#### 2.h. Pre-operative diagnosis rate

#### Description:

The number of women in which a needle biopsy provides the definitive diagnosis (pre-operative diagnosis), as a percentage of all women diagnosed with breast cancer in the programme

Target:

> 90% (desired target)

> 70% (expected target)

#### Table 2h: Percentage of women with a preoperative diagnosis of cancer (DCIS and invasive)

	6 months					2 years					
	Preoperative diagnosis of cancer	Number of cancers	% (95%CI)			Preoperative diagnosis of cancer	Number of cancers	% (95%Cl)			
45-49 years											
BSWN	21	25				69	75	92.0 (83.4-97.0)			
BSCM	7	7				33	34	97.1 (84.7-99.9)			
BSAL	18	19				50	53	94.3 (84.3-98.8)			
BSM	17	17				50	53	94.3 (84.3-98.8)			
BSCtoC	17	20				37	44	84.1 (69.9-93.4)			
BSC	8	9				35	37	94.6 (81.8-99.3)			
BSSL	26	26				73	76	96.1 (88.9-99.2)			
BSHC	5	5				21	23	91.3 (72.0-98.9)			
BSA Total	119	128	93.0 (87.1-96.7)			368	395	93.2 (90.2-95.4)			
50-69 years											
BSWN	80	83	96.4 (89.8-99.2)	$\checkmark\checkmark\checkmark$	*	289	307	94.1 (90.9-96.5)	$\checkmark\checkmark\checkmark$	*	
BSCM	46	46	100.0 (92.3-100.0)	$\checkmark\checkmark\checkmark$	*	148	159	93.1 (88.0-96.5)	$\checkmark\checkmark\checkmark$	*	
BSAL	34	34	100.0 (89.7-100.0)	$\checkmark\checkmark\checkmark$	*	125	127	98.4 (94.4-99.8)	$\checkmark\checkmark\checkmark$	*	
BSM	69	71	97.2 (90.2-99.7)	$\checkmark\checkmark\checkmark$	*	249	264	94.3 (90.8-96.8)	$\checkmark\checkmark\checkmark$	*	
BSCtoC	58	62	93.5 (84.3-98.2)	$\checkmark\checkmark\checkmark$	*	207	213	97.2 (94.0-99.0)	$\checkmark\checkmark\checkmark$	*	
BSC	39	39	100.0 (91.0-100.0)	$\checkmark\checkmark\checkmark$	*	180	187	96.3 (92.4-98.5)	$\checkmark\checkmark\checkmark$	*	
BSSL	77	80	96.2 (89.4-99.2)	$\checkmark\checkmark\checkmark$	*	330	342	96.5 (94.0-98.2)	$\checkmark\checkmark\checkmark$	*	
BSHC	22	22	100.0 (84.6-100.0)	$\checkmark\checkmark\checkmark$	*	100	105	95.2 (89.2-98.4)	$\checkmark\checkmark\checkmark$	*	
BSA Total	425	437	97.3 (95.3-98.6)	$\checkmark\checkmark\checkmark$	*	1,628	1,704	95.5 (94.4-96.5)	<b>~~~</b>	*	

Note: Estimates for small numbers not presented

Exact binomial 95% Confidence Intervals presented

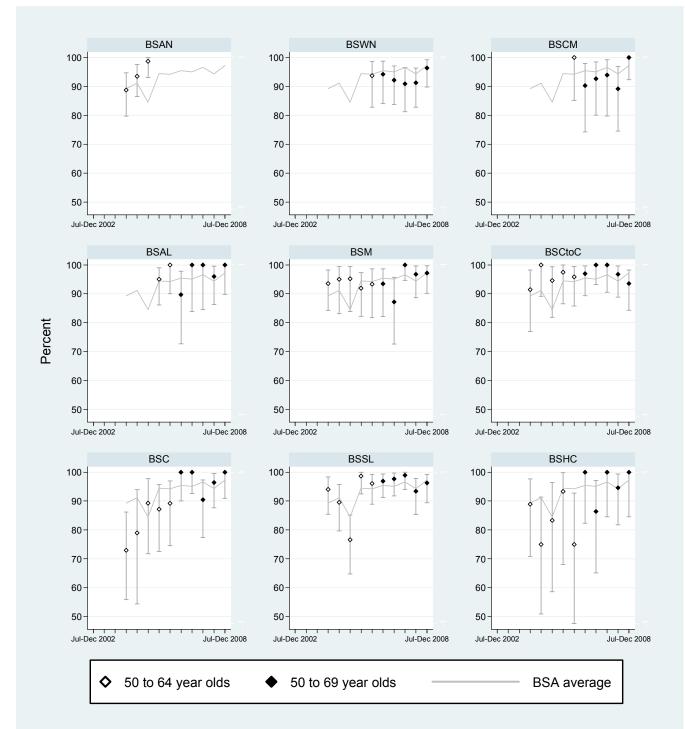
\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark$ √ $\checkmark$  Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant



# Figure 2h.a: Percentage of women with a preoperative diagnosis of cancer (DCIS and invasive), 6 months

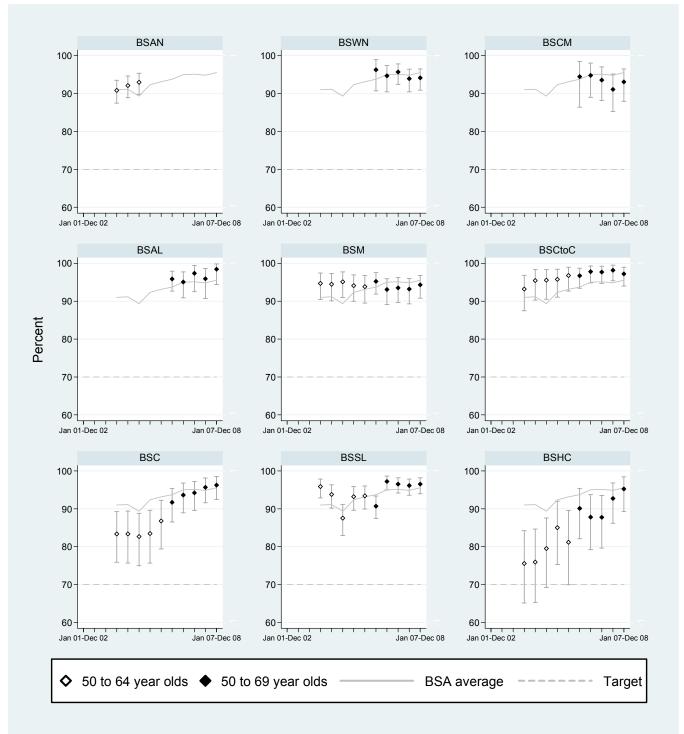


Figure 2h.b: Percentage of women with a preoperative diagnosis of cancer (DCIS and invasive), 2 years

### 2.1. Specificity

### Description:

Specificity is the proportion of women without breast cancer at screening who have a negative screen result. This is estimated by expressing the number of women who have a negative screen result as a percentage of all women screened excluding the women screened positive with cancer.

This is calculated as: number with true negative screening results as a percentage of this number plus the number with false positive screening results. (NB: Interval cancers excluded)

Target:

>93 %

#### 2.1.1. Specificity, 6 months

#### Table 21.1: Estimated specificity of BSA by Lead Provider, 6 months

		Initial			Subsequent	
•	Negative screens (RRS from Screen)	Negative screen plus False Positives	% (95% CI)	Negative screens (RRS from Screen)	Negative screen plus False Positives	% (95% CI)
45-49 years						
BSWN	2,344	2,614	89.7 (88.4-90.8)	1,786	1,840	97.1 (96.2-97.8)
BSCM	1,367	1,488	91.9 (90.4-93.2)	435	447	97.3 (95.4-98.6)
BSAL	1,294	1,401	92.4 (90.8-93.7)	859	903	95.1 (93.5-96.4)
BSM	1,289	1,428	90.3 (88.6-91.8)	1,384	1,454	95.2 (94.0-96.2)
BSCtoC	1,739	1,835	94.8 (93.6-95.7)	1,069	1,089	98.2 (97.2-98.9)
BSC	1,144	1,258	90.9 (89.2-92.5)	1,093	1,152	94.9 (93.4-96.1)
BSSL	2,573	2,766	93.0 (92.0-93.9)	3,791	3,952	95.9 (95.3-96.5)
BSHC	706	837	84.3 (81.7-86.7)	665	680	97.8 (96.4-98.8)
BSA Total	12,456	13,627	91.4 (90.9-91.9)	11,082	11,517	96.2 (95.9-96.6)
50-69 years						
BSWN	1,947	2,133	91.3 (90.0-92.4)	10,538	10,846	97.2 (96.8-97.5)
BSCM	1,043	1,149	90.8 (89.0-92.4)	4,719	4,816	98.0 (97.5-98.4)
BSAL	903	977	92.4 (90.6-94.0)	4,104	4,199	97.7 (97.2-98.2)
BSM	924	1,032	89.5 (87.5-91.3)	10,858	11,208	96.9 (96.5-97.2)
BSCtoC	1,188	1,269	93.6 (92.1-94.9)	9,508	9,639	98.6 (98.4-98.9)
BSC	755	845	89.3 (87.1-91.3)	6,932	7,147	97.0 (96.6-97.4)
BSSL	830	886	93.7 (91.9-95.2)	13,944	14,257	97.8 (97.6-98.0)
BSHC	524	630	83.2 (80.0-86.0)	5,016	5,121	97.9 (97.5-98.3)
BSA Total	8,114	8,921	91.0 (90.3-91.5)	65,619	67,233	97.6 (97.5-97.7)

Exact binomial 95% Confidence Intervals presented

#### 2.1.2. Specificity, 2 years

#### Description:

Specificity is the proportion of women without breast cancer (DCIS and invasive) at screening who have a negative screen result. This is estimated by expressing the number of women who have a negative screen result as a percentage of all women screened excluding the women screened positive with cancer.

This is calculated as: number with true negative screening results as a percentage of this number plus the number with false positive screening results. (NB: Interval cancers excluded)

Target:

> 93 %

Table 21.2: Estimated sp	pecificity of BSA l	by Lead Provider, 2years
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	Initial					Subsequent					
	Negative screens (RRS from Screen)	Negative screen plus False Positives	% (95% CI)			Negative screens (RRS from Screen)	Negative screen plus False Positives	% (95% CI)			
45-49 years											
BSWN	10,474	11,515	91.0 (90.4-91.5)			3,363	3,486	96.5 (95.8-97.1)			
BSCM	6,531	7,179	91.0 (90.3-91.6)			736	758	97.1 (95.6-98.2)			
BSAL	4,807	5,148	93.4 (92.7-94.0)			1,769	1,847	95.8 (94.8-96.6)			
BSM	5,389	5,921	91.0 (90.3-91.7)			4,323	4,525	95.5 (94.9-96.1)			
BSCtoC	6,968	7,433	93.7 (93.2-94.3)			3,640	3,721	97.8 (97.3-98.3)			
BSC	4,883	5,325	91.7 (90.9-92.4)			3,321	3,469	95.7 (95.0-96.4)			
BSSL	11,609	12,416	93.5 (93.1-93.9)			9,747	10,132	96.2 (95.8-96.6)			
BSHC	3,639	4,161	87.5 (86.4-88.4)			2,426	2,498	97.1 (96.4-97.7)			
BSA Total	54,300	59,098	91.9 (91.7-92.1)			29,325	30,436	96.3 (96.1-96.6)			
50-69 years											
BSWN	8,357	9,179	91.0 (90.4-91.6)	✓	*	36,220	37,256	97.2 (97.0-97.4)	$\checkmark$	*	
BSCM	4,631	5,025	92.2 (91.4-92.9)	✓	*	17,670	18,057	97.9 (97.6-98.1)	$\checkmark\checkmark$	*	
BSAL	3,610	3,903	92.5 (91.6-93.3)	$\checkmark$	ns	16,921	17,312	97.7 (97.5-98.0)	$\checkmark\checkmark$	*	
BSM	3,736	4,109	90.9 (90.0-91.8)	$\checkmark$	*	35,848	36,962	97.0 (96.8-97.2)	$\checkmark$	*	
BSCtoC	4,842	5,174	93.6 (92.9-94.2)	$\checkmark$	ns	33,965	34,408	98.7 (98.6-98.8)	$\checkmark\checkmark$	*	
BSC	3,278	3,592	91.3 (90.3-92.2)	$\checkmark$	*	27,910	28,691	97.3 (97.1-97.5)	$\checkmark$	*	
BSSL	4,102	4,349	94.3 (93.6-95.0)	$\checkmark$	*	60,632	61,946	97.9 (97.8-98.0)	$\checkmark\checkmark$	*	
BSHC	2,323	2,652	87.6 (86.3-88.8)	××	*	20,986	21,469	97.8 (97.5-97.9)	$\checkmark\checkmark$	*	
BSA Total	34,879	37,983	91.8 (91.5-92.1)	✓	*	250,152	256,101	97.7 (97.6-97.7)	$\checkmark\checkmark$	*	

Exact binomial 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% confidence interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge$  10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

### 2.m. Benign biopsy rate

#### 2.m.1. Benign open biopsies, 2 years

Description:

The number of open biopsies that turn out to be benign lesions, expressed as a proportion of women screened. *Target:* 

Initial (Prevalent) screen:  $\leq 3.5$  per 1000 women screened

Subsequent (Incident) screen:  $\leq 1.6$  per 1000 women screened

		Ini	tial			Subsequent					
	Benign open biopsies	Number of screens	Rate per 1,000 (95%Cl)			Benign open biopsies	Number of screens	Rate per 1,000 (95%Cl)			
45-49 years											
BSWN	22	11,344	1.9 (1.2-2.9)			7	3,477				
BSCM	12	7,163	1.7 (0.9-2.9)			0	759				
BSAL	15	4,946	3.0 (1.7-5.0)			5	1,849				
BSM	14	5,875	2.4 (1.3-4.0)			1	4,543				
BSCtoC	7	7,232	1.0 (0.4-2.0)			0	3,722				
BSC	3	5,210	0.6 (0.1-1.7)			3	3,478				
BSSL	9	11,998	0.8 (0.3-1.4)			5	10,157				
BSHC	11	4,110	2.7 (1.3-4.8)			1	2,492				
BSA Total	93	57,878	1.6 (1.3-2.0)			22	30,477				
50-69 years											
BSWN	21	8,994	2.3 (1.4-3.6)	$\checkmark$	ns	30	35,914	0.8 (0.6-1.2)	$\checkmark\checkmark\checkmark$	*	
BSCM	10	5,047	2.0 (1.0-3.6)	$\checkmark$	ns	8	17,965	0.4 (0.2-0.9)	$\checkmark\checkmark\checkmark$	*	
BSAL	8	3,711	2.2 (0.9-4.2)	$\checkmark$	ns	16	16,396	1.0 (0.6-1.6)	$\checkmark \checkmark \checkmark$	*	
BSM	8	4,104	1.9 (0.8-3.8)	$\checkmark$	ns	27	36,897	0.7 (0.5-1.1)	$\checkmark \checkmark \checkmark$	*	
BSCtoC	4	4,986	0.8 (0.2-2.1)	$\checkmark\checkmark\checkmark$	*	6	33,456	0.2 (0.1-0.4)	$\checkmark\checkmark\checkmark$	*	
BSC	7	3,493	2.0 (0.8-4.1)	$\checkmark$	ns	10	27,174	0.4 (0.2-0.7)	$\checkmark\checkmark\checkmark$	*	
BSSL	4	4,178	1.0 (0.3-2.5)	$\checkmark\checkmark\checkmark$	*	18	60,510	0.3 (0.2-0.5)	$\checkmark\checkmark\checkmark$	*	
BSHC	15	2,605	5.8 (3.2-9.5)	$\checkmark$	ns	11	20,840	0.5 (0.3-0.9)	$\checkmark\checkmark\checkmark$	*	
BSA Total	77	37,118	2.1 (1.6-2.6)	$\checkmark\checkmark\checkmark$	*	126	249,152	0.5 (0.4-0.6)	$\checkmark\checkmark\checkmark$	*	

#### Table 2m.2: Benign open biopsies, 2 years

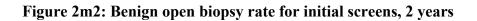
Poisson 95% Confidence Intervals presented \* Statistically different from target value, ns Not significant

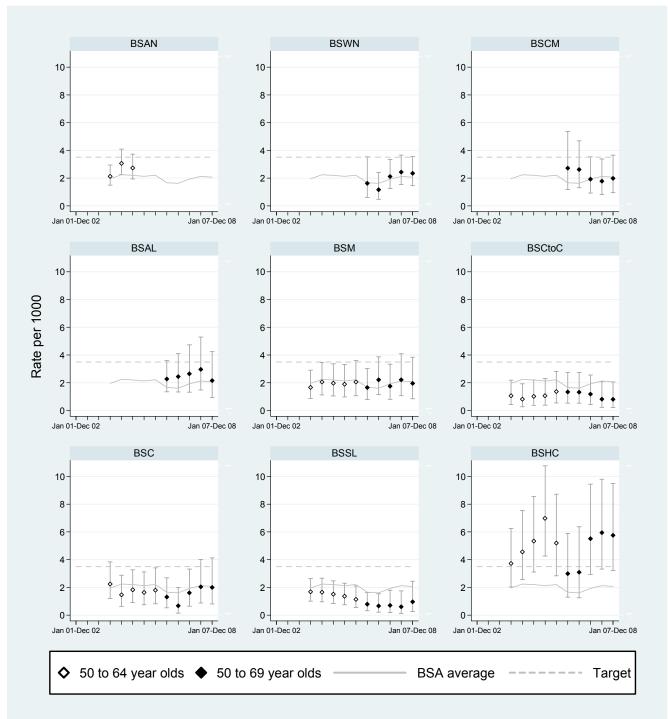
✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target</p>

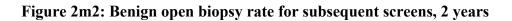
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

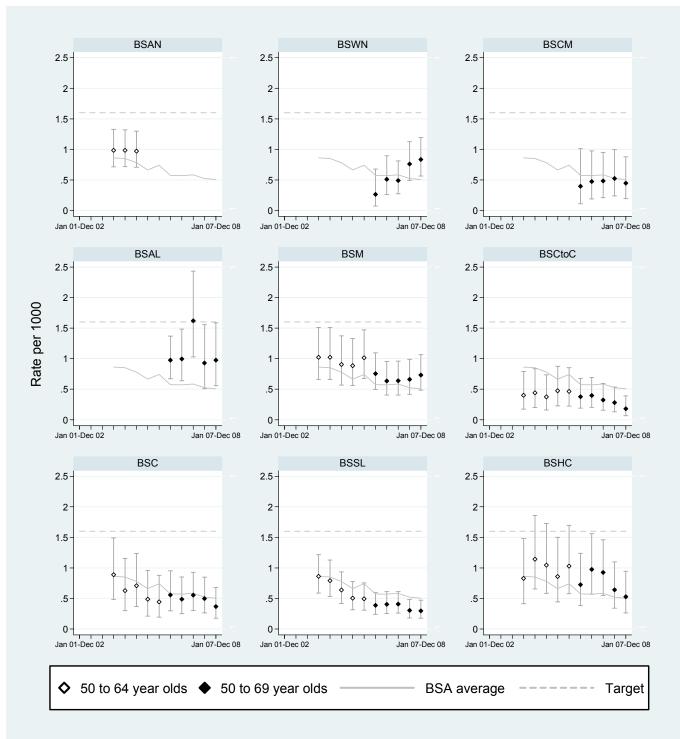
✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant









# **3. EARLY DETECTION OF DCIS OR INVASIVE BREAST CANCER**

. .

## 3.a.1. DCIS and invasive cancer, 6 months

. .

## Description:

The number of women who have ductal carcinoma in situ and/or invasive breast cancer detected within BSA, expressed as a rate per 1000 women screened.

This is influenced by the background incidence of cancer in the population in the absence of screening. All other things being equal, the higher the cancer incidence, the higher the cancer detection rate will be.

The cancer detection targets now relate to invasive cancers only, however, total (DCIS and invasive) cancer detection rates will continue to be reported.

1 000

Table 3a.1: Detection rate of DCIS and in	wasive breast cancer	per 1,000 wome	n screened, 6 months
Initial	Subse	quent	

		initial			abbequent	
·	Number	Women screened	Rate per 1000 (95%Cl)	Number	Women screened	Rate per 1000 (95%Cl)
45-49 years	5					
BSWN	19	2,635	7.2 (4.3-11.3)	6	1,847	3.2 (1.2-7.1)
BSCM	7	1,496	4.7 (1.9-9.6)	0	447	0.0 (0.0-8.3)
BSAL	16	1,420	11.3 (6.4-18.3)	3	906	3.3 (0.7-9.7)
BSM	12	1,442	8.3 (4.3-14.5)	5	1,460	3.4 (1.1-8.0)
BSCtoC	15	1,854	8.1 (4.5-13.3)	5	1,096	4.6 (1.5-10.6)
BSC	9	1,267	7.1 (3.2-13.5)	0	1,154	0.0 (0.0-3.2)
BSSL	14	2,782	5.0 (2.8-8.4)	12	3,967	3.0 (1.6-5.3)
BSHC	5	844	5.9 (1.9-13.8)	0	680	0.0 (0.0-5.4)
BSA Total	97	13,740	7.1 (5.7-8.6)	31	11,557	2.7 (1.8-3.8)
50-69 years	S					
BSWN	20	2,159	9.3 (5.7-14.3)	63	10,917	5.8 (4.4-7.4)
BSCM	13	1,166	11.1 (5.9-19.1)	33	4,850	6.8 (4.7-9.6)
BSAL	8	988	8.1 (3.5-16.0)	26	4,227	6.2 (4.0-9.0)
BSM	12	1,049	11.4 (5.9-20.0)	59	11,277	5.2 (4.0-6.7)
BSCtoC	12	1,290	9.3 (4.8-16.2)	50	9,697	5.2 (3.8-6.8)
BSC	10	857	11.7 (5.6-21.5)	29	7,179	4.0 (2.7-5.8)
BSSL	6	893	6.7 (2.5-14.6)	74	14,333	5.2 (4.1-6.5)
BSHC	3	636	4.7 (1.0-13.8)	19	5,143	3.7 (2.2-5.8)
BSA Total	84	9,038	9.3 (7.4-11.5)	353	67,623	5.2 (4.7-5.8)

Poisson 95% Confidence Intervals presented

## 3a.2. DCIS and invasive cancer, 2 years

#### Description:

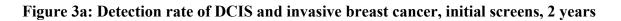
The number of women who have invasive breast cancer detected within BSA, expressed as a rate per 1000 women screened.

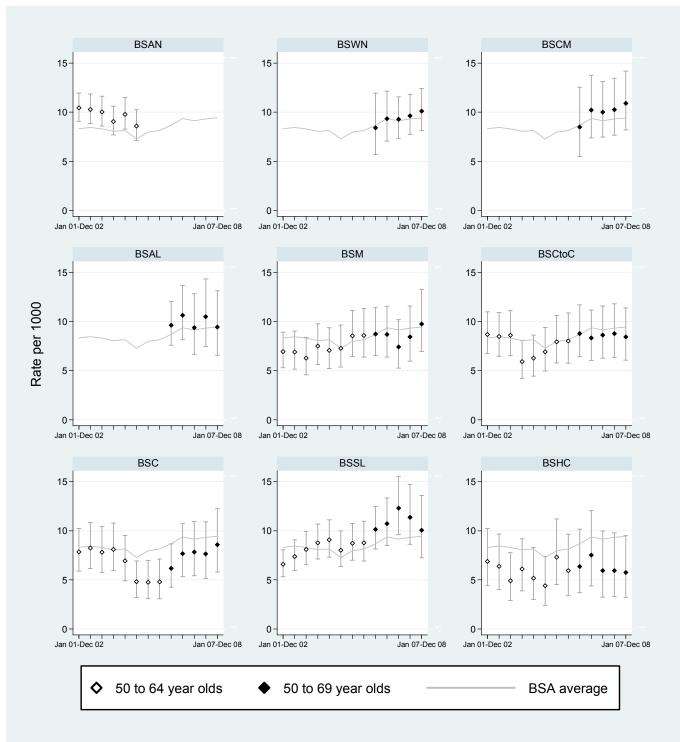
This is influenced by the background incidence of cancer in the population in the absence of screening. All other things being equal, the higher the cancer incidence, the higher the cancer detection rate will be.

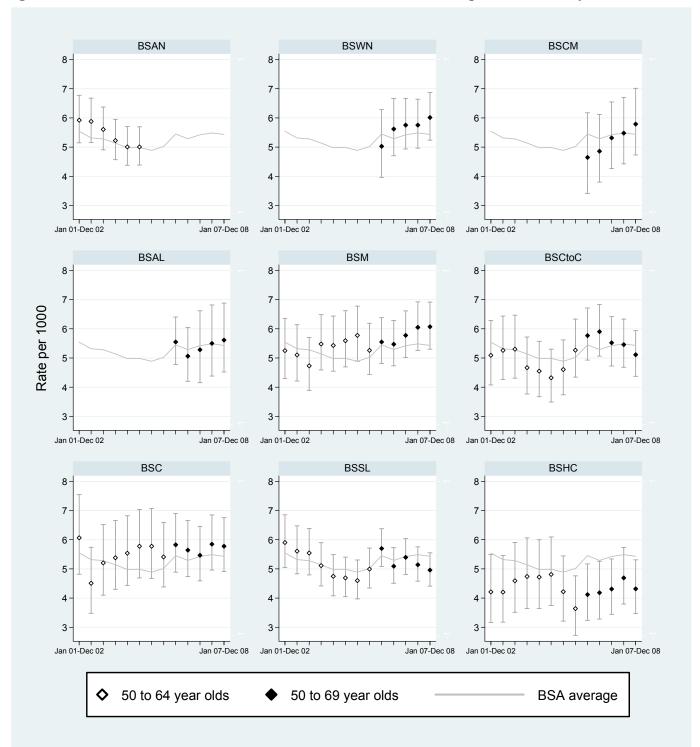
Table 3a.2: Detection rate of DCIS and invasive breast cancer	per 1,000 women screened, 2 years

		In	itial		Su	ubsequent
		Women	Rate per 1,000		Women	Rate per 1,000
	Number	screened	(95%CI)	Number	screened	(95%CI)
45-49 years						
BSWN	64	11,344	5.6 (4.3-7.2)	11	3,477	3.2 (1.6-5.7)
BSCM	32	7,163	4.5 (3.1-6.3)	2	759	2.6 (0.3-9.5)
BSAL	48	4,946	9.7 (7.2-12.9)	5	1,849	2.7 (0.9-6.3)
BSM	36	5,875	6.1 (4.3-8.5)	17	4,543	3.7 (2.2-6.0)
BSCtoC	34	7,232	4.7 (3.3-6.6)	10	3,722	2.7 (1.3-4.9)
BSC	24	5,210	4.6 (3.0-6.9)	13	3,478	3.7 (2.0-6.4)
BSSL	51	11,998	4.3 (3.2-5.6)	25	10,157	2.5 (1.6-3.6)
BSHC	16	4,110	3.9 (2.2-6.3)	7	2,492	2.8 (1.1-5.8)
BSA Total	305	57,878	5.3 (4.7-5.9)	90	30,477	3.0 (2.4-3.6)
50-69 years						
BSWN	91	8,994	10.1 (8.1-12.4)	216	35,914	6.0 (5.2-6.9)
BSCM	55	5,047	10.9 (8.2-14.2)	104	17,965	5.8 (4.7-7.0)
BSAL	35	3,711	9.4 (6.6-13.1)	92	16,396	5.6 (4.5-6.9)
BSM	40	4,104	9.7 (7.0-13.3)	224	36,897	6.1 (5.3-6.9)
BSCtoC	42	4,986	8.4 (6.1-11.4)	171	33,456	5.1 (4.4-5.9)
BSC	30	3,493	8.6 (5.8-12.3)	157	27,174	5.8 (4.9-6.8)
BSSL	42	4,178	10.1 (7.2-13.6)	300	60,510	5.0 (4.4-5.6)
BSHC	15	2,605	5.8 (3.2-9.5)	90	20,840	4.3 (3.5-5.3)
BSA Total	350	37,118	9.4 (8.5-10.5)	1,354	249,152	5.4 (5.1-5.7)

Poisson 95% Confidence Intervals presented







# Figure 3a: Detection rate of DCIS and invasive breast cancer, subsequent screens, 2 years

## **3.a.2b.** Invasive cancer detection, 6 months and 2 years

## Description:

The number of women who have invasive breast cancer detected within BSA, expressed as a rate per 1000 women screened.

This is influenced by the background incidence of cancer in the population in the absence of screening. All other things being equal, the higher the cancer incidence, the higher the cancer detection rate will be.

## Target:

Initial (Prevalent) round:  $\geq 6.1$  per 1000 women screened Subsequent (Incident) round:  $\geq 3.45$  per 1000 women screened.

## Table 3a.2b: Invasive cancers for initial and subsequent screens, women 45-69 years, 6 months

		Ini	itial		Sı	ubsequent
_	Number	Women screened	Rate per 1,000 (95%CI)	Number	Women screened	Rate per 1,000 (95%CI)
45-49 years						
BSWN	14	2,635	5.3 (2.9-8.9)	4	1,847	2.2 (0.6-5.5)
BSCM*	4	1,496	2.7 (0.7-6.8)	0	447	0.0 (0.0-8.3)
BSAL*	13	1,420	9.2 (4.9-15.7)	1	906	1.1 (0.0-6.1)
BSM*	7	1,442	4.9 (2.0-10.0)	0	1,460	0.0 (0.0-2.5)
BSCtoC	9	1,854	4.9 (2.2-9.2)	5	1,096	4.6 (1.5-10.6)
BSC	5	1,267	3.9 (1.3-9.2)	0	1,154	0.0 (0.0-3.2)
BSSL	11	2,782	4.0 (2.0-7.1)	9	3,967	2.3 (1.0-4.3)
BSHC	4	844	4.7 (1.3-12.1)	0	680	0.0 (0.0-5.4)
BSA Total	67	13,740	4.9 (3.8-6.2)	19	11,557	1.6 (1.0-2.6)
50-69 years						
BSWN	14	2,159	6.5 (3.5-10.9)	48	10,917	4.4 (3.2-5.8)
BSCM	10	1,166	8.6 (4.1-15.8)	23	4,850	4.7 (3.0-7.1)
BSAL	7	988	7.1 (2.8-14.6)	24	4,227	5.7 (3.6-8.4)
BSM	9	1,049	8.6 (3.9-16.3)	38	11,277	3.4 (2.4-4.6)
BSCtoC	8	1,290	6.2 (2.7-12.2)	42	9,697	4.3 (3.1-5.9)
BSC	9	857	10.5 (4.8-19.9)	19	7,179	2.6 (1.6-4.1)
BSSL	2	893	2.2 (0.3-8.1)	59	14,333	4.1 (3.1-5.3)
BSHC	2	636	3.1 (0.4-11.4)	15	5,143	2.9 (1.6-4.8)
BSA Total	61	9,038	6.7 (5.2-8.7)	268	67,623	4.0 (3.5-4.5)

Poisson 95% Confidence Intervals presented

		In	itial				Si	ubsequent		
-	Number	Women screened	Rate per 1,000 (95%Cl)			Number	Women screened	Rate per 1,000 (95%CI)		
45-49 years										
BSWN	44	11,344	3.9 (2.8-5.2)			7	3,477	2.0 (0.8-4.1)		
BSCM	20	7,163	2.8 (1.7-4.3)			2	759	2.6 (0.3-9.5)		
BSAL	32	4,946	6.5 (4.4-9.1)			2	1,849	1.1 (0.1-3.9)		
BSM	27	5,875	4.6 (3.0-6.7)			7	4,543	1.5 (0.6-3.2)		
BSCtoC	19	7,232	2.6 (1.6-4.1)			10	3,722	2.7 (1.3-4.9)		
BSC	18	5,210	3.5 (2.0-5.5)			13	3,478	3.7 (2.0-6.4)		
BSSL	35	11,998	2.9 (2.0-4.1)			17	10,157	1.7 (1.0-2.7)		
BSHC	12	4,110	2.9 (1.5-5.1)			7	2,492	2.8 (1.1-5.8)		
BSA Total	207	57,878	3.6 (3.1-4.1)			65	30,477	2.1 (1.6-2.7)		
50-69 years										
BSWN	65	8,994	7.2 (5.6-9.2)	$\checkmark$	ns	158	35,914	4.4 (3.7-5.1)	$\checkmark\checkmark\checkmark$	*
BSCM	35	5,047	6.9 (4.8-9.6)	$\checkmark$	ns	74	17,965	4.1 (3.2-5.2)	$\checkmark$	ns
BSAL	25	3,711	6.7 (4.4-9.9)	$\checkmark$	ns	66	16,396	4.0 (3.1-5.1)	$\checkmark$	ns
BSM	33	4,104	8.0 (5.5-11.3)	$\checkmark$	ns	159	36,897	4.3 (3.7-5.0)	$\checkmark\checkmark\checkmark$	*
BSCtoC	30	4,986	6.0 (4.1-8.6)	$\checkmark$	ns	142	33,456	4.2 (3.6-5.0)	$\checkmark\checkmark\checkmark$	*
BSC	23	3,493	6.6 (4.2-9.9)	$\checkmark$	ns	110	27,174	4.0 (3.3-4.9)	$\checkmark$	ns
BSSL	32	4,178	7.7 (5.2-10.8)	$\checkmark$	ns	227	60,510	3.8 (3.3-4.3)	$\checkmark$	ns
BSHC	12	2,605	4.6 (2.4-8.0)	$\checkmark$	ns	70	20,840	3.4 (2.6-4.2)	$\checkmark$	ns
BSA Total	255	37,118	6.9 (6.1-7.8)	$\checkmark$	ns	1,006	249,152	4.0 (3.8-4.3)	<b>~ ~ ~</b>	*

Poisson 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant ✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant xx Difference of  $\ge 5-9\%$  magnitude worse than target value and statistically significant

# **3.**a Summary of referral to assessment, specificity, false positives and detection rate of DCIS and invasive cancer

Table 3.a: Summary of referral to assessment, specificity, false positives and detection rate of DCIS and invasive cancer, women 50-69 years

	Referral to assessment as % of women screened	Estimated specificity	Positive Predictive Value	DCIS and invasive cancer detection rate per 1,000 women screened
6 months				
Initial round				
BSWN	9.8 (8.5-11.2)	91.3 (90.0-92.4)	9.4 (5.9-14.2)	9.3 (5.7-14.3)
BSCM	10.5 (8.8-12.6)	90.8 (89.0-92.4)	10.6 (5.7-17.4)	11.1 (5.9-19.1)
BSAL	8.6 (6.9-10.6)	92.4 (90.6-94.0)	9.4 (4.2-17.7)	8.1 (3.5-16.0)
BSM	11.9 (9.9-14.2)	89.5 (87.5-91.3)	9.6 (5.1-16.2)	11.4 (5.9-20.0)
BSCtoC	7.9 (6.4-9.6)	93.6 (92.1-94.9)	11.8 (6.2-19.6)	9.3 (4.8-16.2)
BSC	11.9 (9.7-14.4)	89.3 (87.1-91.3)	9.8 (4.8-17.3)	11.7 (5.6-21.5)
BSSL	7.1 (5.4-9.0)	93.7 (91.9-95.2)	9.5 (3.6-19.6)	6.7 (2.5-14.6)
BSHC	17.6 (14.5-21.2)	83.2 (80.0-86.0)	2.7 (0.6-7.6)	4.7 (1.0-13.8)
BSA Total	10.2 (9.6-10.9)	91.0 (90.3-91.5)	9.1 (7.3-11.1)	9.3 (7.4-11.5)
Subsequent	round			
BSWN	3.5 (3.1-3.8)	97.2 (96.8-97.5)	16.6 (13.0-20.8)	5.8 (4.4-7.4)
BSCM	2.7 (2.3-3.2)	98.0 (97.5-98.4)	25.2 (18.0-33.5)	6.8 (4.7-9.6)
BSAL	2.9 (2.4-3.5)	97.7 (97.2-98.2)	21.1 (14.3-29.4)	6.2 (4.0-9.0)
BSM	3.7 (3.4-4.1)	96.9 (96.5-97.2)	14.1 (10.9-17.8)	5.2 (4.0-6.7)
BSCtoC	1.9 (1.7-2.2)	98.6 (98.4-98.9)	26.5 (20.3-33.3)	5.2 (3.8-6.8)
BSC	3.4 (3.0-3.9)	97.0 (96.6-97.4)	11.7 (8.0-16.4)	4.0 (2.7-5.8)
BSSL	2.7 (2.5-3.0)	97.8 (97.6-98.0)	19.0 (15.2-23.3)	5.2 (4.1-6.5)
BSHC	2.5 (2.1-2.9)	97.9 (97.5-98.3)	15.0 (9.3-22.4)	3.7 (2.2-5.8)
BSA Total	3.0 (2.8-3.1)	97.6 (97.5-97.7)	17.6 (16.0-19.4)	5.2 (4.7-5.8)
2 years				
Initial round				
BSWN	10.4 (9.7-11.1)	91.0 (90.4-91.6)	9.8 (7.9-11.8)	10.1 (8.1-12.4)
BSCM	9.3 (8.5-10.2)	92.2 (91.4-92.9)	11.7 (8.9-15.0)	10.9 (8.2-14.2)
BSAL	9.1 (8.2-10.2)	92.5 (91.6-93.3)	10.3 (7.3-14.1)	9.4 (6.6-13.1)
BSM	10.3 (9.3-11.3)	90.9 (90.0-91.8)	9.5 (6.9-12.7)	9.7 (7.0-13.3)
BSCtoC	8.0 (7.3-8.8)	93.6 (92.9-94.2)	10.5 (7.7-13.9)	8.4 (6.1-11.4)
BSC	9.9 (8.9-11.0)	91.3 (90.3-92.2)	8.6 (5.9-12.1)	8.6 (5.8-12.3)
BSSL	7.0 (6.2-7.8)	94.3 (93.6-95.0)	14.4 (10.6-18.9)	10.1 (7.2-13.6)
BSHC	13.6 (12.2-15.0)	87.6 (86.3-88.8)	4.2 (2.4-6.9)	5.8 (3.2-9.5)
BSA Total	9.6 (9.3-9.9)	91.8 (91.5-92.1)	9.8 (8.9-10.9)	9.4 (8.5-10.5)
Subsequent	round			
BSWN	3.5 (3.4-3.7)	97.2 (97.0-97.4)	17.0 (14.9-19.1)	6.0 (5.2-6.9)
BSCM	2.8 (2.5-3.0)	97.9 (97.6-98.1)	21.0 (17.5-24.8)	5.8 (4.7-7.0)
BSAL	3.0 (2.8-3.3)	97.7 (97.5-98.0)	18.4 (15.1-22.1)	5.6 (4.5-6.9)
BSM	3.7 (3.5-3.9)	97.0 (96.8-97.2)	16.5 (14.6-18.6)	6.1 (5.3-6.9)
BSCtoC	1.9 (1.7-2.0)	98.7 (98.6-98.8)	27.0 (23.6-30.7)	5.1 (4.4-5.9)
BSC	3.5 (3.3-3.7)	97.3 (97.1-97.5)	16.5 (14.2-19.0)	5.8 (4.9-6.8)
BSSL	2.7 (2.5-2.8)	97.9 (97.8-98.0)	18.6 (16.7-20.5)	5.0 (4.4-5.6)
BSHC	2.8 (2.6-3.0)	97.8 (97.5-97.9)	15.4 (12.6-18.6)	4.3 (3.5-5.3)
BSA Total	3.0 (2.9-3.0)	97.7 (97.6-97.7)	18.3 (17.4-19.2)	5.4 (5.1-5.7)

## **3.b.** Detection of invasive cancers $\leq 10 \text{ mm}$

Description:

Proportion and rate of invasive breast cancer of diameter  $\leq 10$  mm.

Target:

Initial (Prevalent) round:  $\geq 25\%$ , which gives a rate of  $\geq 15.2$  per 10,000 screens Subsequent (Incident) round:  $\geq 30\%$ , which gives a rate of  $\geq 10.45$  per 10,000 screens

_		l	Initial			Subsequent				
	Invasive cancers ≤10 mm	Total invasive cancers	% (95%CI)			Invasive cancers ≤10 mm	Total invasive cancers	% (95%CI)		
45-49 years	:									
BSWN	13	44	29.5 (16.8-45.2)			3	7	42.9 (9.9-81.6)		
BSCM	3	20	15.0 (3.2-37.9)			1	2	50.0 (1.3-98.7)		
BSAL	8	32	25.0 (11.5-43.4)			1	2	50.0 (1.3-98.7)		
BSM	4	27	14.8 (4.2-33.7)			2	7	28.6 (3.7-71.0)		
BSCtoC	8	19	42.1 (20.3-66.5)			2	10	20.0 (2.5-55.6)		
BSC	4	18	22.2 (6.4-47.6)			4	13	30.8 (9.1-61.4)		
BSSL	12	35	34.3 (19.1-52.2)			2	17	11.8 (1.5-36.4)		
BSHC	3	12	25.0 (5.5-57.2)			0	7	0.0 (0.0-41.0)		
BSA Total	55	207	26.6 (20.7-33.1)			15	65	23.1 (13.5-35.2)		
50-69 years	;									
BSWN	15	65	23.1 (13.5-35.2)	$\checkmark$	ns	68	158	43.0 (35.2-51.1)	$\checkmark\checkmark\checkmark$	*
BSCM	10	35	28.6 (14.6-46.3)	$\checkmark$	ns	29	74	39.2 (28.0-51.2)	$\checkmark$	ns
BSAL	12	25	48.0 (27.8-68.7)	$\checkmark\checkmark\checkmark$	*	31	66	47.0 (34.6-59.7)	$\checkmark\checkmark\checkmark$	*
BSM	6	33	18.2 (7.0-35.5)	$\checkmark$	ns	77	159	48.4 (40.4-56.5)	$\checkmark\checkmark\checkmark$	*
BSCtoC	6	30	20.0 (7.7-38.6)	$\checkmark$	ns	37	142	26.1 (19.1-34.1)	$\checkmark$	ns
BSC	4	23	17.4 (5.0-38.8)	$\checkmark$	ns	53	110	48.2 (38.6-57.9)	$\checkmark\checkmark\checkmark$	*
BSSL	12	32	37.5 (21.1-56.3)	$\checkmark$	ns	87	227	38.3 (32.0-45.0)	$\checkmark\checkmark\checkmark$	*
BSHC	3	12	25.0 (5.5-57.2)	$\checkmark$	ns	31	70	44.3 (32.4-56.7)	$\checkmark\checkmark\checkmark$	*
BSA Total	68	255	26.7 (21.3-32.5)	$\checkmark$	ns	413	1006	41.1 (38.0-44.2)	$\checkmark\checkmark\checkmark$	*

Exact Binomial 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

		Ir	nitial	Subsequent						
	Invasive cancers ≤10 mm	Women screened	Rate per 10,000 (95%Cl)			Invasive cancers ≤10 mm	Women screened	Rate per 10,000 (95%CI)		
45-49 years										
BSWN	13	11,344	11.5 (6.1-19.6)			3	3,477	8.6 (1.8-25.2)		
BSCM	3	7,163	4.2 (0.9-12.2)			1	759	13.2 (0.3-73.4)		
BSAL	8	4,946	16.2 (7.0-31.9)			1	1,849	5.4 (0.1-30.1)		
BSM	4	5,875	6.8 (1.9-17.4)			2	4,543	4.4 (0.5-15.9)		
BSCtoC	8	7,232	11.1 (4.8-21.8)			2	3,722	5.4 (0.7-19.4)		
BSC	4	5,210	7.7 (2.1-19.7)			4	3,478	11.5 (3.1-29.4)		
BSSL	12	11,998	10.0 (5.2-17.5)			2	10,157	2.0 (0.2-7.1)		
BSHC	3	4,110	7.3 (1.5-21.3)			0	2,492	0.0 (0.0-14.8)		
BSA Total	55	57,878	9.5 (7.2-12.4)			15	30,477	4.9 (2.8-8.1)		
50-69 years										
BSWN	15	8,994	16.7 (9.3-27.5)	$\checkmark$	ns	68	35,914	18.9 (14.7-24.0)	$\checkmark\checkmark\checkmark$	*
BSCM	10	5,047	19.8 (9.5-36.4)	$\checkmark$	ns	29	17,965	16.1 (10.8-23.2)	$\checkmark\checkmark\checkmark$	*
BSAL	12	3,711	32.3 (16.7-56.5)	$\checkmark\checkmark\checkmark$	*	31	16,396	18.9 (12.8-26.8)	$\checkmark\checkmark\checkmark$	*
BSM	6	4,104	14.6 (5.4-31.8)	$\checkmark$	ns	77	36,897	20.9 (16.5-26.1)	$\checkmark\checkmark\checkmark$	*
BSCtoC	6	4,986	12.0 (4.4-26.2)	$\checkmark$	ns	37	33,456	11.1 (7.8-15.2)	$\checkmark$	ns
BSC	4	3,493	11.5 (3.1-29.3)	$\checkmark$	ns	53	27,174	19.5 (14.6-25.5)	$\checkmark\checkmark\checkmark$	*
BSSL	12	4,178	28.7 (14.8-50.2)	$\checkmark$	ns	87	60,510	14.4 (11.5-17.7)	$\checkmark\checkmark\checkmark$	*
BSHC	3	2,605	11.5 (2.4-33.7)	$\checkmark$	ns	31	20,840	14.9 (10.1-21.1)	$\checkmark$	ns
BSA Total	68	37,118	18.3 (14.2-23.2)	$\checkmark$	ns	413	249,152	16.6 (15.0-18.3)	$\checkmark\checkmark\checkmark$	*

Table 3b.2: Invasive cancers, less than or equal to 10 mm per 10,000 screens, 2 years

Poisson 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant xx Difference of  $\ge 5.9\%$  magnitude worse than target value and statistically significant

## 3.c. Detection of invasive cancers <15 mm

Description:

Proportion and rate of invasive breast cancer of diameter <15 mm *Target:* 

Initial (Prevalent) round: >50%, which gives a rate of >30.5 per 10,000 screens

Subsequent (Incident) round:  $\geq$ 50%, which gives a rate of  $\geq$ 17.3 per 10,000 screens

# 3.c.1. Proportion of invasive cancers <15 mm, women aged 45-69 years

## Table 3c.1: Proportion of invasive cancers <15 mm, 2 years

		I	nitial			Subsequent				
	Invasive cancers <15 mm	Total invasive cancers	% (95%CI)			Invasive cancers <15 mm	Total invasive cancers	% (95%CI)		
45-49 years										
BSWN	18	44	40.9 (26.3-56.8)			4	7	57.1 (18.4-90.1)		
BSCM	3	20	15.0 (3.2-37.9)			1	2	50.0 (1.3-98.7)		
BSAL	13	32	40.6 (23.7-59.4)			1	2	50.0 (1.3-98.7)		
BSM	8	27	29.6 (13.8-50.2)			4	7	57.1 (18.4-90.1)		
BSCtoC	10	19	52.6 (28.9-75.6)			6	10	60.0 (26.2-87.8)		
BSC	8	18	44.4 (21.5-69.2)			8	13	61.5 (31.6-86.1)		
BSSL	18	35	51.4 (34.0-68.6)			6	17	35.3 (14.2-61.7)		
BSHC	5	12	41.7 (15.2-72.3)			0	7	0.0 (0.0-41.0)		
BSA Total	83	207	40.1 (33.4-47.1)			30	65	46.2 (33.7-59.0)		
50-69 years										
BSWN	28	65	43.1 (30.8-56.0)	$\checkmark$	ns	98	158	62.0 (54.0-69.6)	$\checkmark\checkmark\checkmark$	*
BSCM	12	35	34.3 (19.1-52.2)	$\checkmark$	ns	41	74	55.4 (43.4-67.0)	$\checkmark$	ns
BSAL	14	25	56.0 (34.9-75.6)	$\checkmark$	ns	40	66	60.6 (47.8-72.4)	$\checkmark$	ns
BSM	10	33	30.3 (15.6-48.7)	***	*	100	159	62.9 (54.9-70.4)	$\checkmark\checkmark\checkmark$	*
BSCtoC	10	30	33.3 (17.3-52.8)	$\checkmark$	ns	68	142	47.9 (39.4-56.4)	$\checkmark$	ns
BSC	11	23	47.8 (26.8-69.4)	$\checkmark$	ns	76	110	69.1 (59.6-77.6)	$\checkmark\checkmark\checkmark$	*
BSSL	19	32	59.4 (40.6-76.3)	$\checkmark$	ns	147	227	64.8 (58.2-71.0)	$\checkmark\checkmark\checkmark$	*
BSHC	4	12	33.3 (9.9-65.1)	$\checkmark$	ns	38	70	54.3 (41.9-66.3)	$\checkmark$	ns
BSA Total	108	255	42.4 (36.2-48.7)	***	*	608	1006	60.4 (57.3-63.5)	$\checkmark\checkmark\checkmark$	*

Exact Binomial 95% Confidence Intervals presented \* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge 10\%$  magnitude better than target value and statistically significant

xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant

		Ir	nitial			Subsequent					
	Invasive cancers <15 mm	Women screened	Rate per 10,000 (95%Cl)			Invasive cancers <15 mm	Women screened	Rate per 10,000 (95%Cl)			
45-49 year	S										
BSWN	18	11,344	15.9 (9.4-25.1)			4	3,477	11.5 (3.1-29.5)			
BSCM	3	7,163	4.2 (0.9-12.2)			1	759	13.2 (0.3-73.4)			
BSAL	13	4,946	26.3 (14.0-44.9)			1	1,849	5.4 (0.1-30.1)			
BSM	8	5,875	13.6 (5.9-26.8)			4	4,543	8.8 (2.4-22.5)			
BSCtoC	10	7,232	13.8 (6.6-25.4)			6	3,722	16.1 (5.9-35.1)			
BSC	8	5,210	15.4 (6.6-30.3)			8	3,478	23.0 (9.9-45.3)			
BSSL	18	11,998	15.0 (8.9-23.7)			6	10,157	5.9 (2.2-12.9)			
BSHC	5	4,110	12.2 (4.0-28.4)			0	2,492	0.0 (0.0-14.8)			
BSA Total	83	57,878	14.3 (11.4-17.8)			30	30,477	9.8 (6.6-14.1)			
50-69 year	s										
BSWN	28	8,994	31.1 (20.7-45.0)	$\checkmark$	ns	98	35,914	27.3 (22.2-33.3)	$\checkmark\checkmark\checkmark$	*	
BSCM	12	5,047	23.8 (12.3-41.5)	$\checkmark$	ns	41	17,965	22.8 (16.4-31.0)	$\checkmark$	ns	
BSAL	14	3,711	37.7 (20.6-63.3)	$\checkmark$	ns	40	16,396	24.4 (17.4-33.2)	$\checkmark\checkmark\checkmark$	*	
BSM	10	4,104	24.4 (11.7-44.8)	$\checkmark$	ns	100	36,897	27.1 (22.1-33.0)	$\checkmark\checkmark\checkmark$	*	
BSCtoC	10	4,986	20.1 (9.6-36.9)	$\checkmark$	ns	68	33,456	20.3 (15.8-25.8)	$\checkmark$	ns	
BSC	11	3,493	31.5 (15.7-56.3)	$\checkmark$	ns	76	27,174	28.0 (22.0-35.0)	$\checkmark\checkmark\checkmark$	*	
BSSL	19	4,178	45.5 (27.4-71.0)	$\checkmark$	ns	147	60,510	24.3 (20.5-28.6)	$\checkmark\checkmark\checkmark$	*	
BSHC	4	2,605	15.4 (4.2-39.3)	$\checkmark$	ns	38	20,840	18.2 (12.9-25.0)	$\checkmark$	ns	
BSA Total	108	37,118	29.1 (23.9-35.1)	$\checkmark$	ns	608	249,152	24.4 (22.5-26.4)	$\checkmark\checkmark\checkmark$	*	

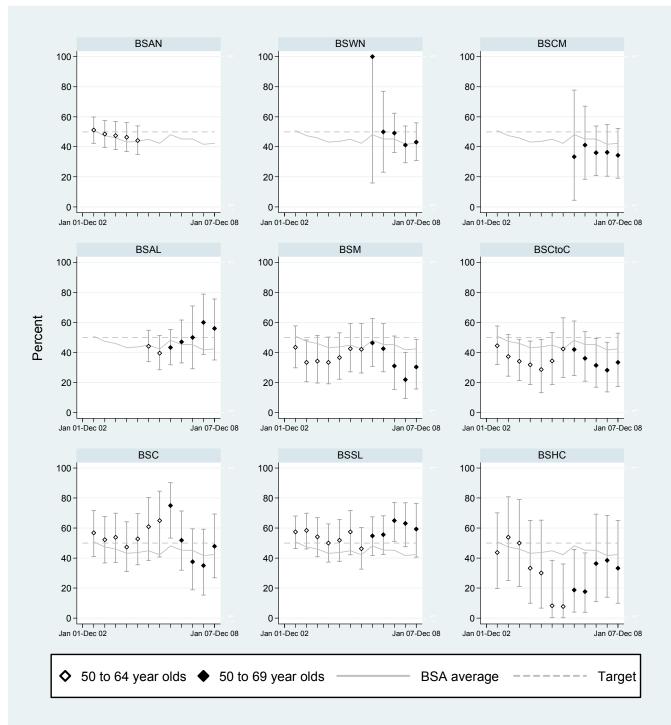
# Table 3c.2: Invasive cancers, <15 mm, per 10,000 screens, 2 years

Poisson 95% Confidence Intervals presented

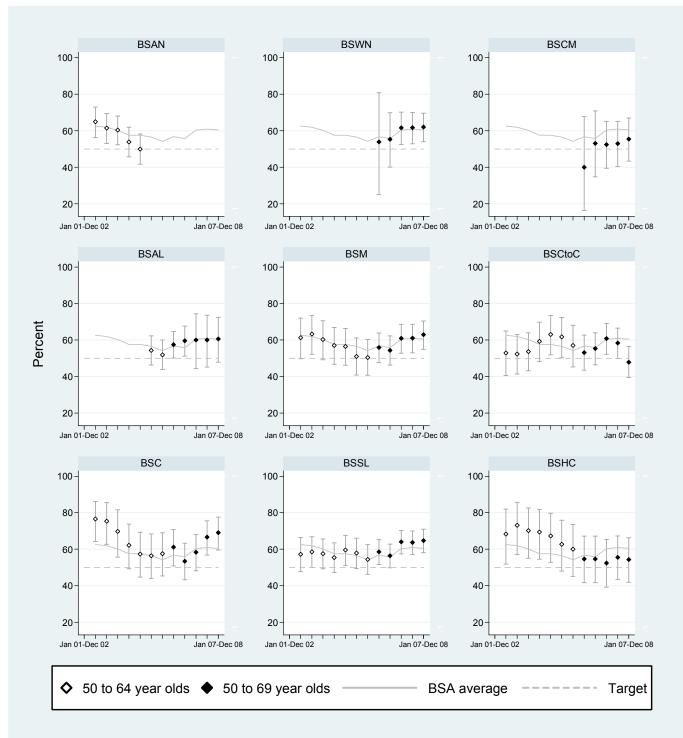
 Statistically different from target value, ns Not significant
 ✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different</li> from target

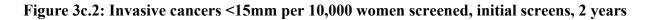
✓ ✓ Difference of 5-9% magnitude better than target value and statistically significant ✓ ✓ ✓ Difference of ≥ 10% magnitude better than target value and statistically significant xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant xxx Difference of ≥ 10% magnitude worse than target value and statistically significant

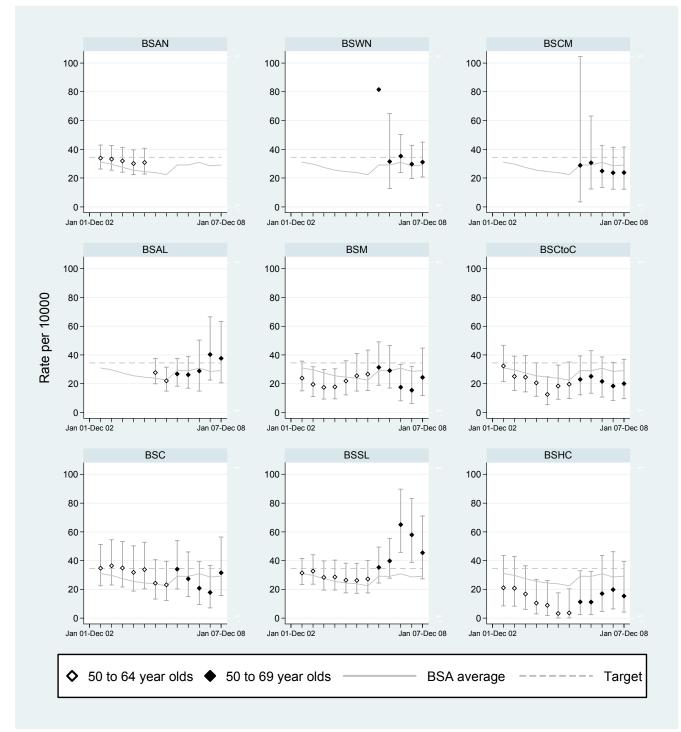






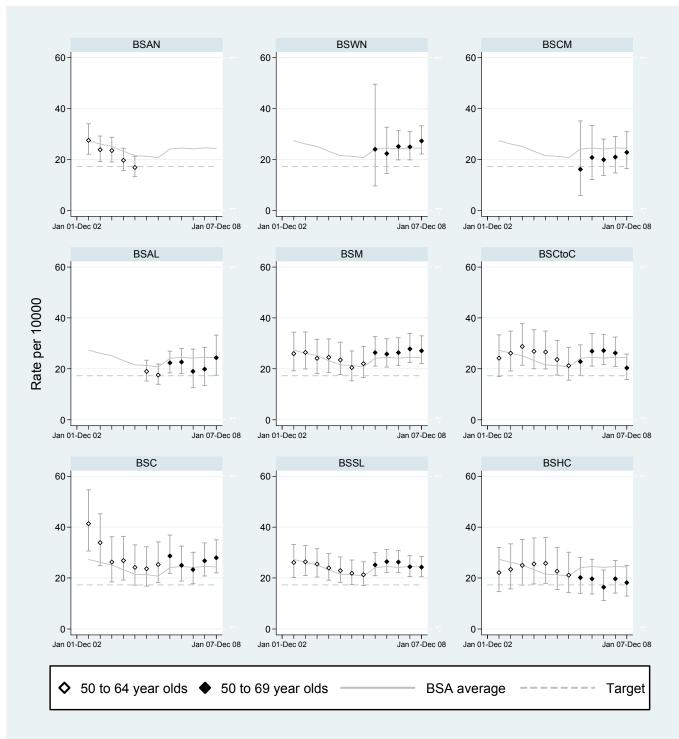






Note: 95%CI for BSWN estimate for Jan 05-Dec 06 is not shown to retain scale of 100 per 10,000 screened. Invasive cancer detection rate <15mm per 10,000 screens for BSWN is 81.6 (95%CI 9.9- 294.9).





## 3.d. Nodal involvement

## Description:

The proportion of women with invasive screen detected breast cancer who do not have nodal involvement. Note: This is calculated as 1 minus the proportion of women with invasive screen detected breast cancer who do have nodal involvement.

*Target:* Initial (Prevalent) round: >70% Subsequent (Incident) round: >75%

## 3.d. Proportion of node negative invasive cancers women aged 45-69 years

#### Table 3d: Proportion of node negative invasive cancers, 2 years

		ĺ	nitial					Subsequent		
_	Invasive cancers, node negative	Total invasive cancers	% (95%Cl)			Invasive cancers, node negative	Total invasive cancers	% (95%CI)		
45-49 years										
BSWN	32	44	72.7 (57.2-85.0)	$\checkmark$	ns	6	7	85.7 (42.1-99.6)	$\checkmark$	ns
BSCM	13	20	65.0 (40.8-84.6)	$\checkmark$	ns	1	2	50.0 (1.3-98.7)	$\checkmark$	ns
BSAL	24	32	75.0 (56.6-88.5)	$\checkmark$	ns	2	2 '	100.0 (15.8-100.0)	$\checkmark$	ns
BSM	17	27	63.0 (42.4-80.6)	$\checkmark$	ns	5	7	71.4 (29.0-96.3)	$\checkmark$	ns
BSCtoC	12	19	63.2 (38.4-83.7)	$\checkmark$	ns	5	10	50.0 (18.7-81.3)	$\checkmark$	ns
BSC	14	18	77.8 (52.4-93.6)	$\checkmark$	ns	7	13	53.8 (25.1-80.8)	$\checkmark$	ns
BSSL	24	35	68.6 (50.7-83.1)	$\checkmark$	ns	9	17	52.9 (27.8-77.0)	$\checkmark$	ns
BSHC	7	12	58.3 (27.7-84.8)	$\checkmark$	ns	3	7	42.9 (9.9-81.6)	$\checkmark$	ns
BSA Total	143	207	69.1 (62.3-75.3)	$\checkmark$	ns	38	65	58.5 (45.6-70.6)	***	*
50-69 years										
BSWN	52	65	80.0 (68.2-88.9)	$\checkmark$	ns	133	158	84.2 (77.5-89.5)	$\checkmark\checkmark\checkmark$	*
BSCM	25	35	71.4 (53.7-85.4)	$\checkmark$	ns	62	74	83.8 (73.4-91.3)	$\checkmark$	ns
BSAL	20	25	80.0 (59.3-93.2)	$\checkmark$	ns	55	66	83.3 (72.1-91.4)	$\checkmark$	ns
BSM	21	33	63.6 (45.1-79.6)	$\checkmark$	ns	122	159	76.7 (69.4-83.1)	$\checkmark$	ns
BSCtoC	21	30	70.0 (50.6-85.3)	$\checkmark$	ns	98	142	69.0 (60.7-76.5)	$\checkmark$	ns
BSC	19	23	82.6 (61.2-95.0)	$\checkmark$	ns	87	110	79.1 (70.3-86.3)	$\checkmark$	ns
BSSL	23	32	71.9 (53.3-86.3)	$\checkmark$	ns	180	227	79.3 (73.4-84.4)	$\checkmark$	ns
BSHC	8	12	66.7 (34.9-90.1)	$\checkmark$	ns	50	70	71.4 (59.4-81.6)	$\checkmark$	ns
BSA Total	189	255	74.1 (68.3-79.4)	$\checkmark$	ns	787	1006	78.2 (75.6-80.7)	$\checkmark$	*

Exact Binomial 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

 $\checkmark \checkmark \checkmark$  Difference of  $\ge$  10% magnitude better than target value and statistically significant

xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant

## 3.e. DCIS diagnosis

Description:

The percentage of all women with screen detected cancer, who are diagnosed as having ductal carcinoma *in situ* (DCIS) as their primary lesion.

Target:

10-25% of all cancers detected by the programme are DCIS.

# 3.e. DCIS, women aged 45-69 years

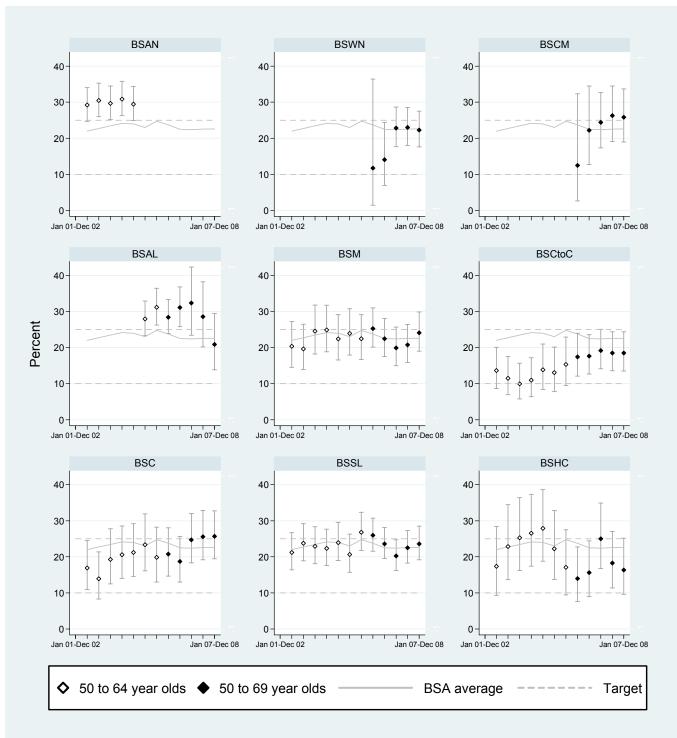
Table 3e: Women with DCIS as a percentage of all screen detected cancers, 2 years

	DCIS	Total cancers	% (95%CI)
45-49 years			
BSWN	21	72	29.2 (19.0-41.1)
BSCM	8	30	26.7 (12.3-45.9)
BSAL	14	48	29.2 (17.0-44.1)
BSM	16	50	32.0 (19.5-46.7)
BSCtoC	12	41	29.3 (16.1-45.5)
BSC	5	36	13.9 (4.7-29.5)
BSSL	20	72	27.8 (17.9-39.6)
BSHC	4	23	17.4 (5.0-38.8)
BSA Total	100	372	26.9 (22.4-31.7)
50-69 years			
BSWN	64	287	22.3 (17.6-27.6)
BSCM	38	147	25.9 (19.0-33.7)
BSAL	24	115	20.9 (13.9-29.4)
BSM	61	253	24.1 (19.0-29.9)
BSCtoC	39	211	18.5 (13.5-24.4)
BSC	46	179	25.7 (19.5-32.8)
BSSL	80	339	23.6 (19.2-28.5)
BSHC	16	98	16.3 (9.6-25.2)
BSA Total	368	1,629	22.6 (20.6-24.7)

Note: The number of invasive cancers noted in Staging and Grading and Treatment indicator tables may differ from earlier tables in the screening and assessment section. Only completed treatment data is included in the Staging and Grading / Treatment section of this report. Some data maybe incomplete at report date, or some woman diagnosed with cancer may decline treatment and therefore will not be included in staging and grading data.

Exact Binomial 95% Confidence Intervals presented





# 5. PROVISION OF AN APPROPRIATE AND ACCEPTABLE SERVICE

## 5.a. Time taken for provision of screening results

Description:

The time since screening that it takes for a woman to be sent the results of her mammogram.

Target:

 $\geq$  90% notified within 10 working days (expected).

 $\geq$  95% notified within 10 working days (desirable).

## Table 5a: Percentage of women notified of screening results within 10 working days

		6	6 months				2	2 years		
	Women notified within 10 working days	Women screened	% (95%CI)			Women notified within 10 working days	Women screened	% (95%Cl)		
45-49 years										
BSWN	4,146	4,482	92.5 (91.7-93.3)			13,598	14,821	91.7 (91.3-92.2)		
BSCM	1,875	1,943	96.5 (95.6-97.3)			7,588	7,922	95.8 (95.3-96.2)		
BSAL	1,973	2,326	84.8 (83.3-86.3)			6,108	6,795	89.9 (89.1-90.6)		
BSM	2,070	2,902	71.3 (69.6-73.0)			9,171	10,418	88.0 (87.4-88.6)		
BSCtoC	2,905	2,950	98.5 (98.0-98.9)			10,851	10,954	99.1 (98.9-99.2)		
BSC	2,285	2,421	94.4 (93.4-95.3)			8,298	8,688	95.5 (95.1-95.9)		
BSSL	6,543	6,749	96.9 (96.5-97.3)			21,716	22,155	98.0 (97.8-98.2)		
BSHC	1,330	1,524	87.3 (85.5-88.9)			5,512	6,602	83.5 (82.6-84.4)		
BSA Total	23,127	25,297	91.4 (91.1-91.8)			82,842	88,355	93.8 (93.6-93.9)		
50-69 years										
BSWN	12,350	13,076	94.4 (94.0-94.8)	$\checkmark$	*	42,441	44,908	94.5 (94.3-94.7)	$\checkmark\checkmark$	*
BSCM	5,859	6,016	97.4 (97.0-97.8)	$\checkmark\checkmark$	*	22,163	23,012	96.3 (96.1-96.6)	$\checkmark\checkmark$	*
BSAL	4,658	5,215	89.3 (88.4-90.1)	$\checkmark$	ns	18,809	20,107	93.5 (93.2-93.9)	$\checkmark$	*
BSM	9,184	12,326	74.5 (73.7-75.3)	***	*	36,585	41,001	89.2 (88.9-89.5)	$\checkmark$	*
BSCtoC	10,793	10,987	98.2 (98.0-98.5)	$\checkmark\checkmark$	*	38,117	38,442	99.2 (99.1-99.2)	$\checkmark\checkmark\checkmark$	*
BSC	7,709	8,036	95.9 (95.5-96.4)	$\checkmark\checkmark$	*	29,690	30,667	96.8 (96.6-97.0)	$\checkmark\checkmark$	*
BSSL	14,922	15,226	98.0 (97.8-98.2)	$\checkmark\checkmark$	*	63,946	64,688	98.9 (98.8-98.9)	$\checkmark\checkmark$	*
BSHC	5,397	5,779	93.4 (92.7-94.0)	$\checkmark$	*	21,097	23,445	90.0 (89.6-90.4)	$\checkmark$	ns
BSA Total	70,872	76,661	92.4 (92.3-92.6)	$\checkmark$	*	272,848	286,270	95.3 (95.2-95.4)	$\checkmark\checkmark$	*

Exact Binomial 95% Confidence Intervals presented

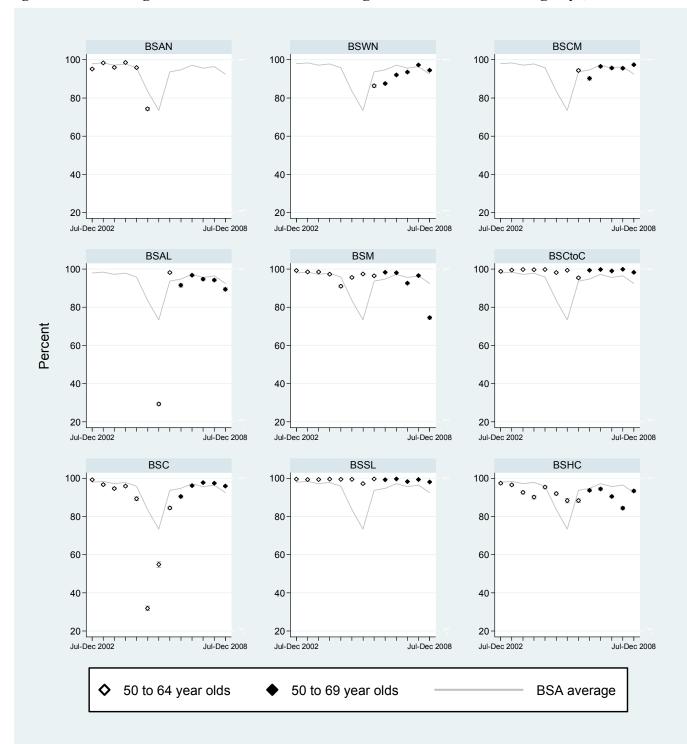
\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

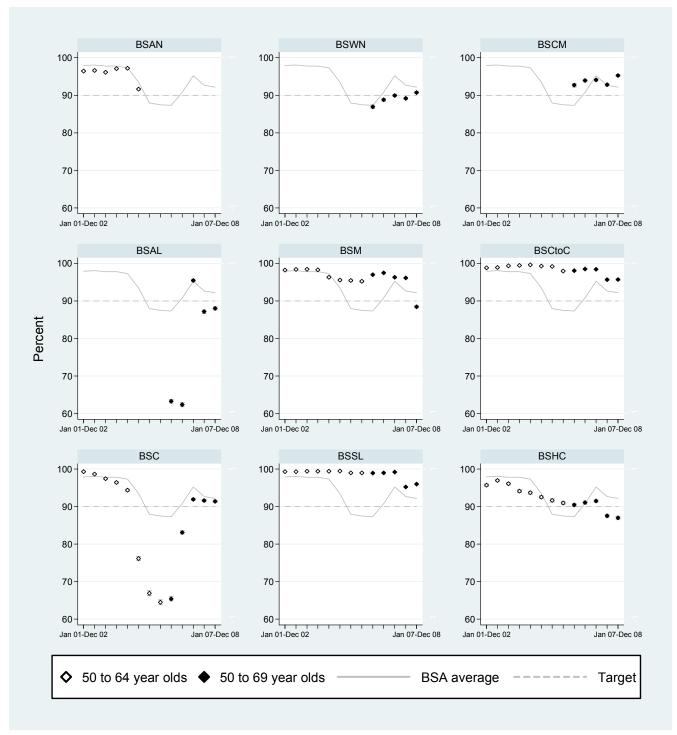
 $\checkmark$ √ $\checkmark$  Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant



# Figure 5a: Percentage of women notified of screening results within 10 working days, 6 months

# Figure 5a: Percentage of women notified of screening results within 10 working days, 2 years



## 5.b. Time taken from screening visit to first offer of an assessment

Description:

The time between screening and the earliest appointment date the woman is offered for assessment. In some cases this date may not coincide with the actual date of assessment due to the fact that many women arrange for a time that suits them better.

Target:

90% offered an assessment appointment within 15 working days.

## Table 5b: Percentage of women offered first assessment appointment within 15 working days

		6	6 months				2	2 years		
	Number offered assessment within 15 working days	Number referred to assessment	% (95%CI)			Number offered assessment within 15 working days	Number referred to assessment	% (95%CI)		
45-49 years										
BSWN	290	352	82.4 (78.0-86.2)			1,023	1,256	81.4 (79.2-83.6)		
BSCM	112	141	79.4 (71.8-85.8)			576	714	80.7 (77.6-83.5)		
BSAL	99	173	57.2 (49.5-64.7)			352	496	71.0 (66.8-74.9)		
BSM	153	229	66.8 (60.3-72.9)			651	795	81.9 (79.0-84.5)		
BSCtoC	131	142	92.3 (86.6-96.1)			552	609	90.6 (88.0-92.8)		
BSC	164	184	89.1 (83.7-93.2)			577	637	90.6 (88.0-92.7)		
BSSL	366	385	95.1 (92.4-97.0)			1,224	1,274	96.1 (94.9-97.1)		
BSHC	70	153	45.8 (37.7-54.0)			215	628	34.2 (30.5-38.1)		
BSA Total	1,385	1,759	78.7 (76.8-80.6)			5,170	6,409	80.7 (79.7-81.6)		
50-69 years										
BSWN	495	591	83.8 (80.5-86.6)	* *	*	1,770	2,207	80.2 (78.5-81.8)	***	*
BSCM	189	254	74.4 (68.6-79.7)	***	*	729	966	75.5 (72.6-78.2)	***	*
BSAL	122	208	58.7 (51.6-65.4)	***	*	633	839	75.4 (72.4-78.3)	***	*
BSM	343	544	63.1 (58.8-67.1)	***	*	1,415	1,776	79.7 (77.7-81.5)	***	*
BSCtoC	267	291	91.8 (88.0-94.6)	$\checkmark$	ns	933	1,033	90.3 (88.4-92.1)	$\checkmark$	ns
BSC	314	349	90.0 (86.3-92.9)	$\checkmark$	ns	1,163	1,300	89.5 (87.7-91.1)	$\checkmark$	ns
BSSL	424	452	93.8 (91.2-95.8)	$\checkmark$	*	1,815	1,909	95.1 (94.0-96.0)	$\checkmark\checkmark$	*
BSHC	115	239	48.1 (41.6-54.7)	***	*	393	937	41.9 (38.8-45.2)	x x x	*
BSA Total	2,269	2,928	77.5 (75.9-79.0)	***	*	8,851	10,967	80.7 (80.0-81.4)	***	*

Exact Binomial 95% Confidence Intervals presented

\* Statistically different from target value, ns Not significant

✓ On target, difference of <5% better or worse than target value based on point estimate or 95% Confidence Interval not significantly different from the target

✓✓ Difference of 5-9% magnitude better than target value and statistically significant

✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant

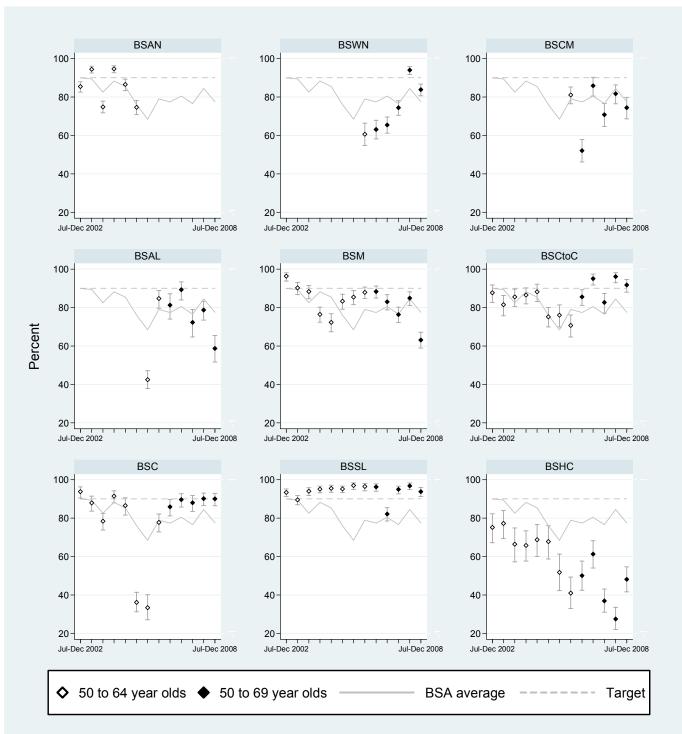


Figure 5b: Percentage of women offered first assessment appointment within 15 working days, 6 months.

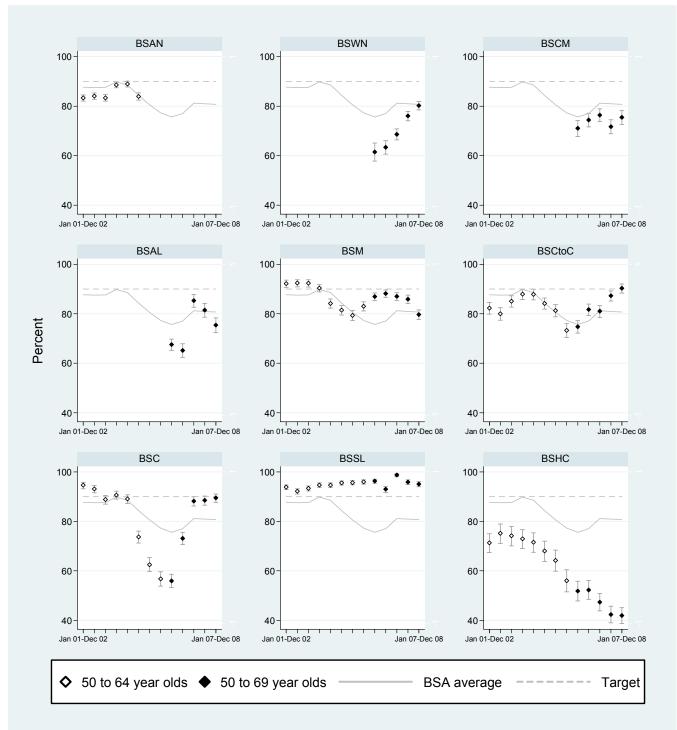


Figure 5b: Percentage of women offered first assessment appointment within 15 working days, 2 years

## 5.c. Time taken from assessment to final diagnostic biopsy

Description:

The time between first level assessment and the final assessment procedure producing a diagnosis.

*Target:* At least 90% of women requiring needle biopsy have that procedure completed within five working days of their assessment.

At least 90% of women requiring open biopsy should have this performed within 15 working days of being notified of the need for this operation.

## 5.c.1. Women receiving Needle Biopsy within 5 working days of assessment

## Table 5c.1: Women receiving needle biopsy within 5 working days of assessment

		6	6 months					2 years		
	Needle biopsies within 5 working days					Needle biopsies within 5 working days				
	of assessment	Total needle biopsies	% (95%CI)			of assessment	Total needle biopsies	% (95%CI)		
45-49 year	S	•					•	. ,		
BSWN	108	109	99.1 (95.0-100.0)			352	360	97.8 (95.7-99.0)		
BSCM	55	59	93.2 (83.5-98.1)			228	253	90.1 (85.8-93.5)		
BSAL	62	76	81.6 (71.0-89.5)			167	199	83.9 (78.1-88.7)		
BSM	53	65	81.5 (70.0-90.1)			196	234	83.8 (78.4-88.2)		
BSCtoC	45	47	95.7 (85.5-99.5)			180	185	97.3 (93.8-99.1)		
BSC	20	21	95.2 (76.2-99.9)			127	134	94.8 (89.5-97.9)		
BSSL	89	98	90.8 (83.3-95.7)			290	333	87.1 (83.0-90.5)		
BSHC	26	30	86.7 (69.3-96.2)			122	134	91.0 (84.9-95.3)		
BSA Total	458	505	90.7 (87.8-93.1)			1,662	1,832	90.7 (89.3-92.0)		
50-69 year	S									
BSWN	185	190	97.4 (94.0-99.1)	$\checkmark\checkmark$	*	721	739	97.6 (96.2-98.6)	$\checkmark\checkmark$	*
BSCM	92	108	85.2 (77.1-91.3)	$\checkmark$	ns	347	388	89.4 (85.9-92.3)	$\checkmark$	ns
BSAL	78	91	85.7 (76.8-92.2)	$\checkmark$	ns	300	347	86.5 (82.4-89.9)	$\checkmark$	*
BSM	141	171	82.5 (75.9-87.8)	* *	*	488	597	81.7 (78.4-84.8)	* *	*
BSCtoC	113	114	99.1 (95.2-100.0)	$\checkmark\checkmark\checkmark$	*	411	421	97.6 (95.7-98.9)	$\checkmark\checkmark$	*
BSC	80	83	96.4 (89.8-99.2)	$\checkmark$	ns	325	351	92.6 (89.3-95.1)	✓	ns
BSSL	113	135	83.7 (76.4-89.5)	* *	*	541	638	84.8 (81.8-87.5)	××	*
BSHC	46	49	93.9 (83.1-98.7)	$\checkmark$	ns	202	217	93.1 (88.9-96.1)	✓	ns
BSA Total	848	941	90.1 (88.0-91.9)	$\checkmark$	ns	3,335	3,698	90.2 (89.2-91.1)	$\checkmark$	ns

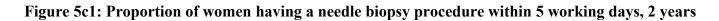
Exact Binomial 95% Confidence Intervals presented \* Statistically different from target value, ns Not significant

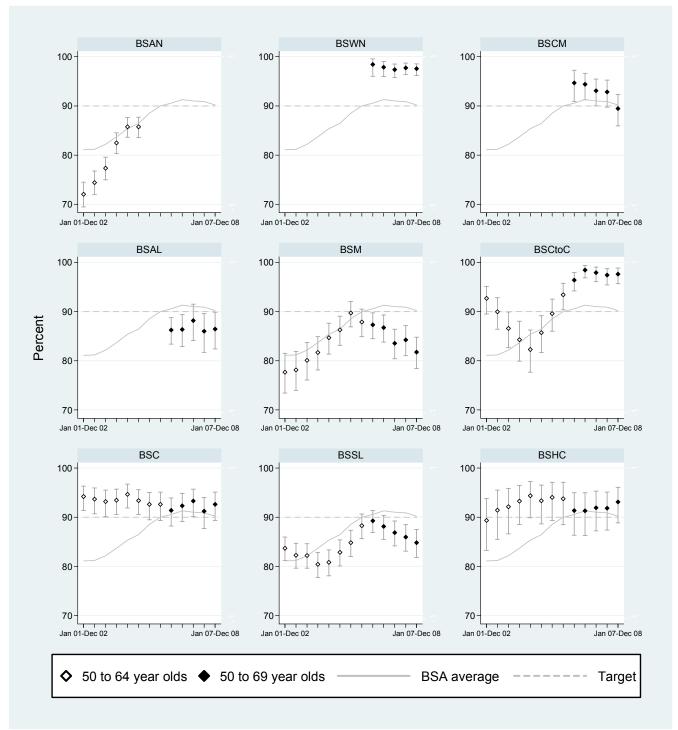
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✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant





## 5.c.2. Women having Open Biopsy within 15 working days

At least 90% of women requiring open biopsy should have this performed within 15 working days of being notified of the need for this operation.

_		6	months		2	2 years		
-	Open biopsies within 15 working days of notification	Total open biopsies	% (95%CI)	Open biopsies within 15 working days of notification	Total open biopsies	% (95%Cl)		
45-49 years								
BSWN	9	18		17	35	48.6 (31.4-66.0)		
BSCM	5	5		13	13	100.0 (75.3-100.0)		
BSAL	10	11		20	23	87.0 (66.4-97.2)		
BSM	2	2		8	18	44.4 (21.5-69.2)		
BSCtoC	0	1		2	12	16.7 (2.1-48.4)		
BSC	0	1		3	8	37.5 (8.5-75.5)		
BSSL	1	1		14	16	87.5 (61.7-98.4)		
BSHC	1	2		12	15	80.0 (51.9-95.7)		
BSA Total	28	41	68.3 (51.9-81.9)	89	140	63.6 (55.0-71.5)		
50-69 years								
BSWN	6	14		33	70	47.1 (35.1-59.4)	***	*
BSCM	6	6		29	29	100.0 (88.1-100.0)	$\checkmark$	ns
BSAL	4	5		22	26	84.6 (65.1-95.6)	$\checkmark$	ns
BSM	4	9		17	50	34.0 (21.2-48.8)	***	*
BSCtoC	1	7		2	15	13.3 (1.7-40.5)	***	*
BSC	0	0		13	23	56.5 (34.5-76.8)	***	*
BSSL	5	5		30	33	90.9 (75.7-98.1)	$\checkmark$	ns
BSHC	2	4		27	32	84.4 (67.2-94.7)	$\checkmark$	ns
BSA Total	28	50	56.0 (41.3-70.0) ××× *	173	278	62.2 (56.2-68.0)	***	*

Table 5c.2: Proportion of women	having an open biopsy	y procedure within 15 working	days
1	8 I I V	/ I	•

Note: 6 monthly data for lead providers not shown due to small numbers.

Exact Binomial 95% Confidence Intervals presented

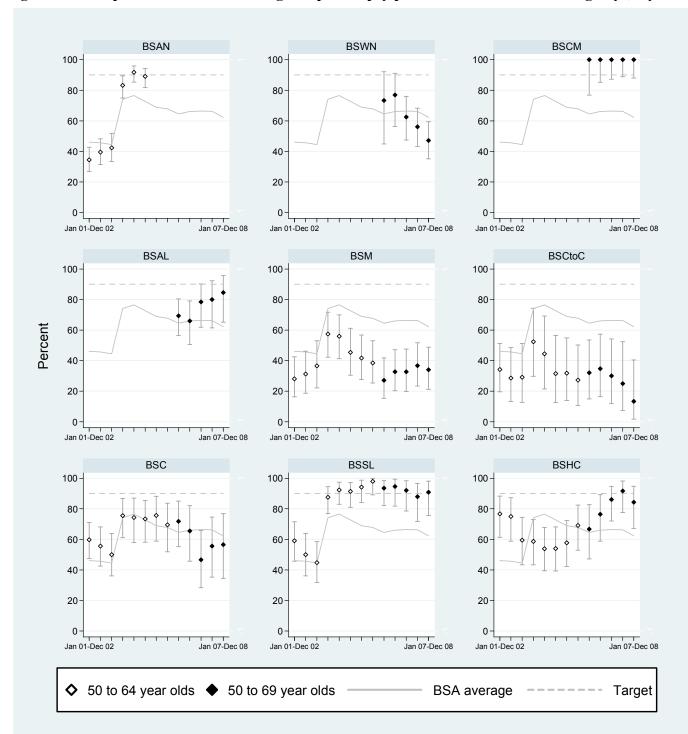
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✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant



# Figure 5c2: Proportion of women having an open biopsy procedure within 15 working days, 2 years

## 5.d. Time taken from final diagnostic biopsy to reporting assessment results

Description:

The time taken from the final biopsy procedure to reporting the diagnosis to the women. *Target:* 

Results reported to at least 90% of women within five working days of final diagnostic biopsy.

Table 5d: Percentage of womer	receiving final diagnostic bio	psy results within 5 working days
Table Su. Tereentage of women	i i coorving innar anagnostic pro	psy results within 5 working days

		6	months				2	2 years		
	Results reported within 5 I	Number with				Results reported within 5 I	Number with			
	working days of final biopsy	final diagnostic biopsy	% (95%CI)			working days of final biopsy	final diagnostic biopsy	% (95%CI)		
45-49 years										
BSWN	94	120	78.3 (69.9-85.3)			327	401	81.5 (77.4-85.2)		
BSCM	54	59	91.5 (81.3-97.2)			224	254	88.2 (83.6-91.9)		
BSAL	72	80	90.0 (81.2-95.6)			186	205	90.7 (85.9-94.3)		
BSM	49	66	74.2 (62.0-84.2)			181	239	75.7 (69.8-81.0)		
BSCtoC	47	49	95.9 (86.0-99.5)			174	188	92.6 (87.8-95.9)		
BSC	21	22	95.5 (77.2-99.9)			121	136	89.0 (82.5-93.7)		
BSSL	92	99	92.9 (86.0-97.1)			323	339	95.3 (92.4-97.3)		
BSHC	30	34	88.2 (72.5-96.7)			126	145	86.9 (80.3-91.9)		
BSA Total	459	529	86.8 (83.6-89.5)			1,662	1,907	87.2 (85.6-88.6)		
BSWN	169	203	83.3 (77.4-88.1)	××	*	623	789	79.0 (75.9-81.8)	× × ×	*
BSCM	107	108	99.1 (94.9-100.0)	$\checkmark\checkmark\checkmark$	*	349	391	89.3 (85.8-92.1)	$\checkmark$	ns
BSAL	87	93	93.5 (86.5-97.6)	$\checkmark$	ns	320	357	89.6 (86.0-92.6)	$\checkmark$	ns
BSM	130	170	76.5 (69.4-82.6)	***	*	466	604	77.2 (73.6-80.4)	***	*
BSCtoC	103	113	91.2 (84.3-95.7)	$\checkmark$	ns	387	424	91.3 (88.2-93.8)	$\checkmark$	ns
BSC	79	83	95.2 (88.1-98.7)	$\checkmark$	ns	317	359	88.3 (84.5-91.4)	$\checkmark$	ns
BSSL	127	143	88.8 (82.5-93.5)	$\checkmark$	ns	612	651	94.0 (91.9-95.7)	$\checkmark$	*
BSHC	52	53	98.1 (89.9-100.0)	$\checkmark$	ns	208	232	89.7 (85.0-93.3)	✓	ns
BSA Total	854	966	88.4 (86.2-90.4)	$\checkmark$	ns	3,282	3,807	86.2 (85.1-87.3)	$\checkmark$	*

Exact Binomial 95% Confidence Intervals presented

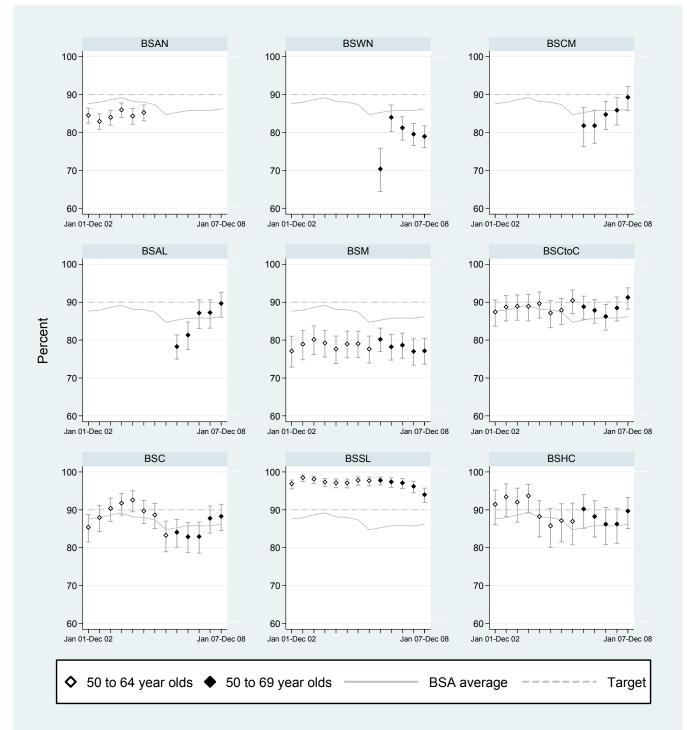
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✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant

xx Difference of  $\geq$  5-9% magnitude worse than target value and statistically significant



# Figure 5d: Percentage of women receiving final diagnostic biopsy results within 5 working days, 2 years

# APPENDIX A: POPULATION DENOMINATORS BY AGE-GROUP

			Annual C	census pro	jection est	timates			Smoothe	ed 6 month	nly populat	ion estima	tes	
Year	Lead Provider	Reporting period	45-49	50-54	55-59	60-64	65-69	50-69*	45-49	50-54	55-59	60-64	65-69	50-69*
2008	BSWN	Jul-Dec, 2008	26840	22575	19765	17310	13255	72905	26840	22575	19765	17310	13255	72905
2008	BSWN	Jan-Jun, 2008	26115	21765	19655	16165	13010	70595	26543	22093	19715	16625	13293	71725
2007	BSWN	Jul-Dec, 2007	26115	21765	19655	16165	13010	70595	26115	21765	19655	16165	13010	70595
2007	BSWN	Jan-Jun,2007	25260	21110	19535	15245	12445	68335	25688	21438	19595	15705	12728	69465
2006	BSWN	Jul-Dec, 2006	25260	21110	19535	15245	12445	68335	25260	21110	19535	15245	12445	68335
2006	BSWN	Jan-Jun, 2006		20530	19010	14790		54330		20530	19010	14790		54330
2008	BSAL	Jul-Dec, 2008	16690	13620	11240	9030	6760	40650	16690	13620	11240	9030	6760	40650
2008	BSAL	Jan-Jun, 2008	15940	13290	11070	8340	6690	39390	16225	13435	11105	8590	6855	39985
2007	BSAL	Jul-Dec, 2007	15940	13290	11070	8340	6690	39390	15940	13290	11070	8340	6690	39390
2007	BSAL	Jan-Jun, 2007	15370	13000	11000	7840	6360	38200	15655	13145	11035	8090	6525	38795
2006	BSAL	Jul-Dec, 2006	15370	13000	11000	7840	6360	38200	15370	13000	11000	7840	6360	38200
2006	BSAL	Jan-Jun, 2006		12610	10670	7610		30890		12610	10670	7610		30890
2005	BSAL	Jul-Dec, 2005		12685	11295	8625		32605		12685	11295	8625		32605
2008	BSCM	Jul-Dec, 2008	16580	13655	11980	10175	7680	43490	16580	13655	11980	10175	7680	43490
2008	BSCM	Jan-Jun, 2008	15965	13275	11820	9485	7490	42070	16320	13423	11895	9740	7718	42775
2007	BSCM	Jul-Dec, 2007	15965	13275	11820	9485	7490	42070	15965	13275	11820	9485	7490	42070
2007	BSCM	Jan-Jun, 2007	15255	12980	11670	8975	7035	40660	15610	13128	11745	9230	7263	41365
2006	BSCM	Jul-Dec, 2006	15255	12980	11670	8975	7035	40660	15255	12980	11670	8975	7035	40660
2006	BSCM	Jan-Jun, 2006		12685	11295	8625		32605		12685	11295	8625		32605
2005	BSCM	Jul-Dec, 2005		12685	11295	8625		32605		12685	11295	8625		32605
2005	BSAN	Jan-Jun, 2005		44870	39290	30050		114210		45135	39703	30323		115160
2004	BSAN	Jul-Dec, 2004		44870	39290	30050		114210		44870	39290	30050		114210
2004	BSAN	Jan-Jun, 2004		43810	37640	28960		110410		44340	38465	29505		112310
2003	BSAN	Jul-Dec, 2003		43810	37640	28960		110410		43810	37640	28960		110410
2003	BSAN	Jan-Jun, 2003		44338	36540	28258		109135		43317	35964	27926		107206
2002	BSAN	Jul-Dec, 2002		42824	34287	26891		104002		42824	34287	26891		104002
2008	BSM	Jul-Dec, 2008	24770	22125	19195	16860	13880	72060	24770	22125	19195	16860	13880	72060
2008	BSM	Jan-Jun, 2008	24285	21400	18945	15900	13680	69925	24633	21810	18943	16323	13935	71010
2007	BSM	Jul-Dec, 2007	24285	21400	18945	15900	13680	69925	24285	21400	18945	15900	13680	69925
2007	BSM	Jan-Jun,2007	23590	20580	18950	15055	13170	67755	23938	20990	18948	15478	13425	67755
2006	BSM	Jul-Dec, 2006	23590	20580	18950	15055	13170	67755	23590	20580	18950	15055	13170	67755
2006	BSM	Jan-Jun, 2006		20025	18305	15005		53335		20303	18628	15030		53960
2005	BSM	Jul-Dec, 2005		20025	18305	15005		53335		20025	18305	15005		53335
2005	BSM	Jan-Jun, 2005		19495	17485	14595		51575		19760	17895	14800		52455
2004	BSM	Jul-Dec, 2004		19495	17485	14595		51575		19495	17485	14595		51575
2004	BSM	Jan-Jun, 2004		18900	16800	14190		49890		19198	17143	14393		50733
2003	BSM	Jul-Dec, 2003		18900	16800	14190		49890		18900	16800	14190		49890
2003	BSM	Jan-Jun, 2003		18713	16175	13935		48823		18765	16246	13960		48971
2002	BSM	Jul-Dec, 2002		18629	15692	13730		48051		18629	15692	13730		48051

			Annual Ce	ensus proje	ection estimation	tes			Smoothed	6 monthly	population est	imates		
Year	Lead Provider	Reporting period	45-49	50-54	55-59	60-64	65-69	50-69*	45-49	50-54	55-59	60-64	65-69	50-69*
2008	BSCtoC	Jul-Dec, 2008	20885	18320	16255	14005	11685	60265	20885	18320	16255	14005	11685	60265
2008	BSCtoC	Jan-Jun, 2008	20525	17965	16155	13220	11565	58905	20770	18230	16138	13538	11783	59688
2007	BSCtoC	Jul-Dec, 2007	20525	17965	16155	13220	11565	58905	20525	17965	16155	13220	11565	58905
2007	BSCtoC	Jan-Jun,2007	20035	17435	16190	12585	11130	57340	20280	17700	16173	12903	11348	57340
2006	BSCtoC	Jul-Dec, 2006	20035	17435	16190	12585	11130	57340	20035	17435	16190	12585	11130	57340
2006	BSCtoC	Jan-Jun, 2006		17090	15565	12465		45120		17263	15878	12525		45665
2005	BSCtoC	Jul-Dec, 2005		17090	15565	12465		45120		17090	15565	12465		45120
2005	BSCtoC	Jan-Jun, 2005		16810	14990	12375		44175		16950	15278	12420		44648
2004	BSCtoC	Jul-Dec, 2004		16810	14990	12375		44175		16810	14990	12375		44175
2004	BSCtoC	Jan-Jun, 2004		16525	14365	12135		43025		16668	14678	12255		43600
2003	BSCtoC	Jul-Dec, 2003		16525	14365	12135		43025		16525	14365	12135		43025
2003	BSCtoC	Jan-Jun, 2003		16795	13935	12013		42743		16353	13756	11800		41909
2002	BSCtoC	Jul-Dec, 2002		16181	13146	11465		40792		16181	13146	11465		40792
2008	BSC	Jul-Dec, 2008	18125	14855	13075	11145	8650	47725	18125	14855	13075	11145	8650	47725
2008	BSC	Jan-Jun, 2008	17545	14525	13150	10335	8495	46505	17843	14675	13125	10605	8655	47060
2007	BSC	Jul-Dec, 2007	17545	14525	13150	10335	8495	46505	17545	14525	13150	10335	8495	46505
2007	BSC	Jan-Jun,2007	16950	14225	13200	9795	8175	45395	17248	14375	13175	10065	8335	45950
2006	BSC	Jul-Dec, 2006	16950	14225	13200	9795	8175	37220	16950	14225	13200	9795	8175	45395
2006	BSC	Jan-Jun, 2006		13920	12905	9675		36500		14073	13053	9735		36860
2005	BSC	Jul-Dec, 2005		13920	12905	9675		36500		13920	12905	9675		36500
2005	BSC	Jan-Jun, 2005		13725	12460	9475		35660		13823	12683	9575		36080
2004	BSC	Jul-Dec, 2004		13725	12460	9475		35660		13725	12460	9475		35660
2004	BSC	Jan-Jun, 2004		13690	11820	9320		34830		13708	12140	9398		35245
2003	BSC	Jul-Dec, 2003		13690	11820	9320		34830		13690	11820	9320		34830
2003	BSC	Jan-Jun, 2003		13723	11293	8913		33928		13560	11248	8940		33747
2002	BSC	Jul-Dec, 2002		13430	10675	8559		32664		13430	10675	8559		32664
2008	BSSL	Jul-Dec, 2008	27320	24460	22175	19025	14995	80655	27320	24460	22175	19025	14995	80655
2008	BSSL	Jan-Jun, 2008	26955	23845	22045	17675	14780	78345	27288	24120	22095	18160	15105	79480
2007	BSSL	Jul-Dec, 2007	26955	23845	22045	17675	14780	78345	26955	23845	22045	17675	14780	78345
2007	BSSL	Jan-Jun, 2007	26290	23295	21945	16705	14130	76075	26623	23570	21995	17190	14455	77210
2006	BSSL	Jul-Dec, 2006	26290	23295	21945	16705	14130	76075	26290	23295	21945	16705	14130	76075
2006	BSSL	Jan-Jun, 2006		22660	21435	16295		60390		22978	21690	16500		61168
2005	BSSL	Jul-Dec, 2005		22660	21435	16295		60390		22660	21435	16295		60390
2005	BSSL	Jan-Jun, 2005		22435	20435	15925		58795		22548	20935	16110		59593
2004	BSSL	Jul-Dec, 2004		22435	20435	15925		58795		22435	20435	15925		58795
2004	BSSL	Jan-Jun, 2004		22240	19300	15530		57070		22338	19868	15728		57933
2003	BSSL	Jul-Dec, 2003		22240	19300	15530		57070		22240	19300	15530		57070
2003	BSSL	Jan-Jun, 2003		22320	18390	15250		55960		22059	18366	15147		55572
2002	BSSL	Jul-Dec, 2002		21878	17432	14764		54074		21878	17432	14764		54074

			Annual Cer	Annual Census projection estimates						Smoothed 6 monthly population estimates						
Year	Lead Provider	Reporting period	45-49	50-54	55-59	60-64	65-69	50-69*	45-49	50-54	55-59	60-64	65-69	50-69*		
2008	BSHC	Jul-Dec, 2008	11255	9840	8690	7545	6250	32325	11255	9840	8690	7545	6250	32325		
2008	BSHC	Jan-Jun, 2008	11180	9535	8765	7055	6235	31590	11325	9585	8768	7248	6368	31968		
2007	BSHC	Jul-Dec, 2007	11180	9535	8765	7055	6235	31590	11180	9535	8765	7055	6235	31590		
2007	BSHC	Jan-Jun, 2007	10890	9435	8760	6670	5970	30835	11035	9485	8763	6863	6103	31213		
2006	BSHC	Jul-Dec, 2006	10890	9435	8760	6670	5970	30835	10890	9435	8760	6670	5970	30835		
2006	BSHC	Jan-Jun, 2006		9160	8520	6745		24425		9298	8640	6708		24645		
2005	BSHC	Jul-Dec, 2005		9160	8520	6745		24425		9160	8520	6745		24425		
2005	BSHC	Jan-Jun, 2005		8975	8265	6625		23865		9068	8393	6685		24145		
2004	BSHC	Jul-Dec, 2004		8975	8265	6625		23865		8975	8265	6625		23865		
2004	BSHC	Jan-Jun, 2004		8950	7850	6600		23400		8963	8058	6613		23633		
2003	BSHC	Jul-Dec, 2003		8950	7850	6600		23400		8950	7850	6600		23400		
2003	BSHC	Jan-Jun, 2003		9085	7405	6383		22873		8967	7433	6409		22808		
2002	BSHC	Jul-Dec, 2002		8983	7015	6217		22215		8983	7015	6217		22215		
2008	BSA Total	Jul-Dec, 2008	162465	139450	122375	105095	83155	450075	16246	139450	122375	10509	83155	450075		
2008	BSA Total	Jan-Jun, 2008	158510	135600	121605	98175	81945	437325	16094	137370	121783	10082	83710	443690		
2007	BSA Total	Jul-Dec, 2007	158510	135600	121605	98175	81945	437325	15851	135600	121605	98175	81945	437325		
2007	BSA Total	Jan-Jun, 2007	153640	132060	121250	92870	78415	424595	15607	133830	121428	95523	80180	430960		
2006	BSA Total	Jul-Dec, 2006	153640	132060	121250	92870	78415	424595	15364	132060	121250	92870	78415	424595		
2006	BSA Total	Jan-Jun, 2006		128680	117705	91210		337595		130370	119478	92040		341888		
2005	BSA Total	Jul-Dec, 2005		128680	117705	91210		337595		128680	117705	91210		337595		
2005	BSA Total	Jan-Jun, 2005		126310	112925	89045		328280		127283	114885	89913		332080		
2004	BSA Total	Jul-Dec, 2004		126310	112925	89045		328280		126310	112925	89045		328280		
2004	BSA Total	Jan-Jun, 2004		124115	107775	86735		318625		125213	110350	87890		323453		
2003	BSA Total	Jul-Dec, 2003		124115	107775	86735		318625		124115	107775	86735		318625		
2003	BSA Total	Jan-Jun, 2003		124973	103738	84750		313460		123020	103011	84181		310212		
2002	BSA Total	Jul-Dec, 2002		121925	98247	81626		301798		121925	98247	81626		301798		

	Lead		Annual Ce	ensus project	ion estimates	;			Smoothed 6 monthly population estimates						
Year	Provider	Report period	45-49 50-69*						45-49			50-69*			
			Maori	Desifie	Other	Maori	Desifie	Other		Desifie	Other		Desifie	Other	
2008	BSWN	Jul-Dec, 2008	3400	Pacific 1210	22230	6670	Pacific 2585	63650	Maori 3400	Pacific 1210	22230	Maori 6670	Pacific 2585	Other 63650	
2008	BSWN	Jan-Jun, 2008	3400	1210	22230	6430	2385	61720	3400	1210	22230	6550	2515	62685	
2008	BSWN	Jul-Dec, 2007	3200	1145	21770	6430	2445	61720	3200	1145	22000	6430	2445	61720	
2007	BSWN	Jan-Jun,2007	3200	1080	21770	6180	2305	59850	3200	1145	21770	6180	2305	59850	
2006	BSWN	Jul-Dec, 2006	3020	1080	21160	6180	2305	59850	3020	1080	21160	6180	2305	59850	
2006	BSWN	Jan-Jun, 2006	1100	1710	40000	8730	3195	78490	1100	4740	40000	8730	3195	78490	
2008	BSAL	Jul-Dec, 2008	1160	1710	13820	2560	3550	34540	1160	1710	13820	2560	3550	34540	
2008	BSAL	Jan-Jun, 2008	1100	1630	13210	2450	3450	33490	1130	1670	13515	2505	3500	34015	
2007	BSAL	Jul-Dec, 2007	1100	1630	13210	2450	3450	33490	1100	1630	13210	2450	3450	33490	
2007	BSAL	Jan-Jun, 2007	1070	1550	12750	2360	3360	32480	1085	1590	12980	2360	3360	32480	
2006	BSAL	Jul-Dec, 2006	1070	1550	12750	2360	3360	32480	1070	1550	12750	2360	3360	32480	
2006	BSAL	Jan-Jun, 2006				3300	4780	43800				3300	4780	43800	
2005	BSAL	Jul-Dec, 2005				3540	4275	24790				3540	4275	24790	
2008	BSCM	Jul-Dec, 2008	2350	2670	11560	4750	5800	32940	2350	2670	11560	4750	5800	32940	
2008	BSCM	Jan-Jun, 2008	2220	2525	11220	4550	5510	32010	2285	2598	11390	4650	5655	32475	
2007	BSCM	Jul-Dec, 2007	2220	2525	11220	4550	5510	32010	2220	2525	11220	4550	5510	32010	
2007	BSCM	Jan-Jun, 2007	2110	2365	10780	4330	5280	31050	2165	2445	11000	4330	5280	31050	
2006	BSCM	Jul-Dec, 2006	2110	2365	10780	4330	5280	2365	2110	2365	10780	4330	5280	31050	
2006	BSCM	Jan-Jun, 2006				6120	7290	40530				6120	7290	40530	
2005	BSCM	Jul-Dec, 2005				1890	2690	26310				1890	2690	26310	
2005	BSAN	Jan-Jun, 2005				9820	8500	95890				9933	8590	96640	
2004	BSAN	Jul-Dec, 2004				9820	8500	95890				9820	8500	95890	
2004	BSAN	Jan-Jun, 2004				9370	8140	92890				9595	8320	94390	
2003	BSAN	Jul-Dec, 2003				9370	8140	92890				9370	8140	92890	
2003	BSAN	Jan-Jun, 2003				9210	7010	92915				9115	7398	91188	
2002	BSAN	Jul-Dec, 2002				8860	6655	89485				8860	6655	89485	
2008	BSM	Jul-Dec, 2008	5230	310	19230	11140	750	60170	5230	310	19230	11140	750	60170	
2008	BSM	Jan-Jun, 2008	5010	345	18930	10620	715	58590	5120	328	19080	10880	733	59380	
2007	BSM	Jul-Dec, 2007	5010	345	18930	10620	715	58590	5010	345	18930	10620	715	58590	
2007	BSM	Jan-Jun, 2007	4850	320	18420	10050	685	57020	4930	333	18675	10050	685	57020	
2006	BSM	Jul-Dec, 2006	4850	320	18420	10050	685	57020	4850	320	18420	10050	685	57020	
2006	BSM	Jan-Jun, 2006				8080	545	44710				8185	550	45040	
2005	BSM	Jul-Dec, 2005				8080	545	44710				8080	545	44710	
2005	BSM	Jan-Jun, 2005				7660	525	43390				7870	535	44050	
2004	BSM	Jul-Dec, 2004				7660	525	43390				7660	525	43390	
2004	BSM	Jan-Jun, 2004				7300	530	42090				7480	528	42740	
2003	BSM	Jul-Dec, 2003				7300	530	42090				7300	530	42090	
2003	BSM	Jan-Jun, 2003				7090	518	41215				7180	507	41483	
2002	BSM	Jul-Dec, 2002				7060	483	40875				7060	483	40875	
	15.60	50. 200, 200Z	1.0 1.1 1	2006			100			· 1 50 /			100		

# APPENDIX B: POPULATION DENOMINATORS BY ETHNIC GROUP

Voor	Lead Provider	Penart pariod	Annual Census projection estimates						Smoothed 6 monthly population estimates						
Year	Provider	Report period	45-49	50-69*					45-49			0-69*			
			Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	
2008	BSCtoC	Jul-Dec, 2008	4075	310	16500	8270	635	51360	4075	310	16500	8270	635	51360	
2008	BSCtoC	Jan-Jun, 2008	3845	310	16370	8010	590	50305	3960	310	16435	8140	613	50833	
2007	BSCtoC	Jul-Dec, 2007	3845	310	16370	8010	590	50305	3845	310	16370	8010	590	50305	
2007	BSCtoC	Jan-Jun, 2007	3630	295	16110	7690	560	49090	3738	303	16240	7690	560	49090	
2006	BSCtoC	Jul-Dec, 2006	3630	295	16110	7690	560	49090	3630	295	16110	7690	560	49090	
2006	BSCtoC	Jan-Jun, 2006				6155	455	38510				6206	455	38695	
2005	BSCtoC	Jul-Dec, 2005				6155	455	38510				6155	455	38510	
2005	BSCtoC	Jan-Jun, 2005				5950	455	37770				6053	455	38140	
2004	BSCtoC	Jul-Dec, 2004				5950	455	37770				5950	455	37770	
2004	BSCtoC	Jan-Jun, 2004				5725	405	36900				5838	430	37335	
2003	BSCtoC	Jul-Dec, 2003				5725	405	36900				5725	405	36900	
2003	BSCtoC	Jan-Jun, 2003				5705	363	36675				5473	372	35998	
2002	BSCtoC	Jul-Dec, 2002				5220	338	35095				5220	338	35095	
2008	BSC	Jul-Dec, 2008	2015	970	15140	3640	2385	41700	2015	970	15140	3640	2385	41700	
2008	BSC	Jan-Jun, 2008	1905	930	14710	3470	2285	40750	1960	950	14925	3555	2335	41225	
2007	BSC	Jul-Dec, 2007	1905	930	14710	3470	2285	40750	1905	930	14710	3470	2285	40750	
2007	BSC	Jan-Jun,2007	1785	905	14260	3260	2195	39940	1845	918	14485	3260	2195	39940	
2006	BSC	Jul-Dec, 2006	1785	905	14260	3260	2195	39940	1785	905	14260	3260	2195	39940	
2006	BSC	Jan-Jun, 2006				2740	1790	31970				2770	1808	32133	
2005	BSC	Jul-Dec, 2005				2740	1790	31970				2740	1790	31970	
2005	BSC	Jan-Jun, 2005				2620	1720	31320				2680	1755	31645	
2004	BSC	Jul-Dec, 2004				2620	1720	31320				2620	1720	31320	
2004	BSC	Jan-Jun, 2004				2495	1670	30630				2558	1695	30975	
2003	BSC	Jul-Dec, 2003				2495	1670	30630				2495	1670	30630	
2003	BSC	Jan-Jun, 2003				2440	1568	29920				2413	1584	29928	
2002	BSC	Jul-Dec, 2002				2330	1498	29225				2330	1498	29225	
2008	BSSL	Jul-Dec, 2008	1545	305	25470	3070	565	77020	1545	305	25470	3070	565	77020	
2008	BSSL	Jan-Jun, 2008	1505	280	25170	2860	545	74940	1525	293	25320	2965	555	75980	
2007	BSSL	Jul-Dec, 2007	1505	280	25170	2860	545	74940	1505	280	25170	2860	545	74940	
2007	BSSL	Jan-Jun,2007	1385	255	24650	2725	510	72840	1445	268	24910	2725	510	72840	
2006	BSSL	Jul-Dec, 2006	1385	255	24650	2725	510	72840	1385	255	24650	2725	510	72840	
2006	BSSL	Jan-Jun, 2006				2215	405	57770				2235	409	58145	
2005	BSSL	Jul-Dec, 2005				2215	405	57770				2215	405	57770	
2005	BSSL	Jan-Jun, 2005				2135	390	56270				2175	398	57020	
2004	BSSL	Jul-Dec, 2004				2135	390	56270				2135	390	56270	
2004	BSSL	Jan-Jun, 2004				2010	380	54680				2073	385	55475	
2003	BSSL	Jul-Dec, 2003				2010	380	54680				2010	380	54680	
2003	BSSL	Jan-Jun, 2003				2203	398	53360				2060	373	53163	
2003	BSSL	Jul-Dec, 2002				2110	365	51645				2110	365	51645	

~	Lead		Annual Census projection estimates						Smoothed 6 monthly population estimates						
Year	Provider	Report period	45.40						45.40			0.00*			
			45-49	5-49 50-69*				45-49				0-69*			
			Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	
2008	BSHC	Jul-Dec, 2008	720	75	10460	1315	150	30860	720	75	10460	1315	150	30860	
2008	BSHC	Jan-Jun, 2008	670	80	10430	1225	145	30220	695	78	10445	1270	148	30540	
2007	BSHC	Jul-Dec, 2007	670	80	10430	1225	145	30220	670	80	10430	1225	145	30220	
2007	BSHC	Jan-Jun, 2007	615	75	10200	1170	155	29510	643	78	10315	1170	155	29510	
2006	BSHC	Jul-Dec, 2006	615	75	10200	1170	155	29510	615	75	10200	1170	155	29510	
2006	BSHC	Jan-Jun, 2006				985	130	23310				995	130	23440	
2005	BSHC	Jul-Dec, 2005				985	130	23310				985	130	23310	
2005	BSHC	Jan-Jun, 2005				945	130	22790				965	130	23050	
2004	BSHC	Jul-Dec, 2004				945	130	22790				945	130	22790	
2004	BSHC	Jan-Jun, 2004				880	115	22390				913	123	22590	
2003	BSHC	Jul-Dec, 2003				880	115	22390				880	115	22390	
2003	BSHC	Jan-Jun, 2003				1005	113	21755				915	114	21828	
2002	BSHC	Jul-Dec, 2002				950	113	21265				950	113	21265	
2008	BSA Total	Jul-Dec, 2008	20495	7560	134410	41415	16420	392240	20495	7560	134410	41415	16420	392240	
2008	BSA Total	Jan-Jun, 2008	19455	7245	131810	39615	15685	382025	19975	7403	133110	40515	16053	387133	
2007	BSA Total	Jul-Dec, 2007	19455	7245	131810	39615	15685	382025	19455	7245	131810	39615	15685	382025	
2007	BSA Total	Jan-Jun, 2007	18465	6845	128330	37765	15050	371780	18960	7045	130070	37765	15050	371780	
2006	BSA Total	Jul-Dec, 2006	18465	6845	128330	37765	15050	371780	18465	6845	128330	37765	15050	371780	
2006	BSATotal	Jan-Jun, 2006				30445	12150	295000				30661	12176	296183	
2005	BSATotal	Jul-Dec, 2005				30445	12150	295000				30445	12150	295000	
2005	BSATotal	Jan-Jun, 2005				29130	11720	287430				29675	11863	290545	
2004	BSATotal	Jul-Dec, 2004				29130	11720	287430				29130	11720	287430	
2004	BSATotal	Jan-Jun, 2004				27780	11240	279580				28455	11480	283505	
2003	BSATotal	Jul-Dec, 2003				27780	11240	279580				27780	11240	279580	
2003	BSATotal	Jan-Jun, 2003				27653	9968	275840				27155	10346	273585	
2002	BSATotal	Jul-Dec, 2002				26530	9452	267590				26530	9452	267590	

# **APPENDIX C: GLOSSARY OF TERMS**

#### Assessment

Follow-up investigations if something of concern is seen on a mammogram.

#### Assessment rate

Number of women referred to assessment as a percentage of all women screened

#### Asymptomatic

Women who do not have symptoms of breast cancer

## **Axillary dissection**

A formal dissection of the axilla that removes lymph nodes for examination in the staging of breast cancer to determine if further treatment is required.

#### **Biopsy**

A sample of a breast abnormality, or the whole abnormality, is removed and examined under a microscope by a pathologist to determine whether it is cancer

#### Benign biopsy weight

The weight of the open biopsy specimen presented to the pathologist

#### Benign biopsy rate

Number of open biopsies that turn out to be benign lesions, expressed as a proportion of women screened

## BSA

BreastScreen Aotearoa

#### Coverage

Population-based measure of the percentage of women in the target age group (45-49, 50-69 years) who have had a screening mammogram in the programme

#### **Initial screen**

A woman's first screening mammogram at any BSA Lead Provider

## False negative

A negative screening test result in a woman who does have cancer at the time the screening is conducted.

## False positive result

The proportion of women who are recalled to assessment, but after assessment are found not to have cancer

## High risk invasive breast cancer

Having at least one of the following features:

a. pT>2cm (pathological tumour size

and/or

b. Grade 2-3 (histologic and/or nuclear grade)

## Lead Provider

A service provider who contracts with the National Screening Unit to provide services purchased as a result of the *Request for Proposal*. This term encompasses those individuals or organisations who act as a nominee, agent or subcontracted provider to a Lead Provider.

#### Positive predictive value

The proportion of women screened positive who are ultimately diagnosed as having cancer

## Pre-operative diagnosis rate

Number of women in which a needle biopsy provides the definitive diagnosis (pre-operative diagnosis), as a percentage of all women diagnosed with breast cancer in the programme

## Rescreen

A screening mammogram undertaken two years after the previous screen. In this report, rescreen refers to women who returned for screening within 27 months following their previous screen.

#### Sensitivity

The proportion of truly diseased persons in the screened population who are identified as diseased by the screening test. Sensitivity is a measure of the probability of correctly diagnosing a case, or the probability that any given case will be identified by the test.

## Specificity

The proportion of women without breast cancer at screening who have a negative screen result. This is estimated by expressing the number of women who have a negative screen result as a percentage of all women screened excluding the women screened positive with cancer.

#### Subsequent screen

A woman's screening mammogram at a BSA Lead Provider when she has previously attended BSA.

## **Technical recall rate**

Number of women who have to return to a screening unit (either Fixed or Mobile) for further films to complete their screening episode, expressed as a percentage of the number screened

## **Technical reject rate**

Number of films rejected as a percentage of the number of films taken, calculated separately for women who are screened in a fixed unit and a mobile unit

## **APPENDIX D: Map of BSA Lead Provider Regions**

