BREASTSCREEN AOTEAROA

INDEPENDENT MONITORING REPORT:

SCREENING AND ASSESSMENT REPORT OF WOMEN ATTENDING BSA

(WOMEN SCREENED JANUARY 2008 TO DECEMBER 2009)

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EXECUTIVE SUMMARY

This report presents cross-sectional data for the period July-December 2009 (6 months) and January 2008 to December 2009 (2 years), and trend data from programme inception to December 2009 for all BreastScreen Aotearoa screening and assessment indicators. Treatment indicators are located in a companion report.[1] 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 time-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. Both the magnitude of differences and their statistical significance are used to assess the relation of observed to target values. Differences of <5% in magnitude from the target value and/or differences which are not significantly different from the target value are considered 'on target' (see 'Technical notes for interpreting this report').

As the BSA screening program matures the proportion of visits for initial screening diminish and the proportion of subsequent visits increases, and age profile of new entrants to the program becomes younger. Since the breast cancer incidence rate in younger women is lower than older women, the cancer detection rate from screening will decrease as the age profile of the initial screens becomes younger. The above should be borne in mind when interpreting cancer detection rates from initial screens (see 'Technical notes for interpreting this report').

1. Coverage

BSA screened 109,940 women aged 45-69 years over the 6-month period from July to December 2009, of which 82,460 were aged between 50 and 69 years. For women in this age group, the biennial participation was 66.3%, which was below the target of 70%. Of biennial screens, 11.2% were initial screens and 88.8% 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 (53.3% and 57.6% respectively), compared with the remaining ethnic groups (67.8%). However, biennial coverage in Maori and Pacific groups continues show a sustained increase over time. Only BSSL is above target for Maori and Pacific coverage. Following on sustained increases in coverage for Pacific women, BSWN is now on target for this indicator.

BSSL continues to exceed the biennial coverage target of 70% reaching 80.7%, and has consistently had higher biennial coverage relative to other lead providers. BSHC also continues to exceed the biennial coverage target of 70% and for this reporting period reached 74.2%. Biennial coverage for BSC and BSCtoC continues to increase and they are now on target. There are now 4 Lead Providers on or above target for overall coverage.

Re-screening proportion and timeliness
The proportion of women re-screened for the six-month period for women aged 50-69 years was 88.5% within 27 months (target >85%). Of those who attended for re-screen, 80.5% attended within 20-24 months (target >75%). The biennial re-screen rate (85.8%) for women returning for a mammogram within 27 months was also on target, with most Lead Providers meeting or exceeding the target value, with the exception of BSM and BSCM, with the latter two services showing a declining biennial trend, although for BSM there is an improvement in the most recent 6 months covered by this report.

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[1] Page A, Taylor R. BreastScreen Aotearoa: Independent Monitoring Report -Treatment of women with BSA detected cancers (women screened January 2007-December 2008). BreastScreen Aotearoa: Wellington 2010.

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 9.9% (target <10%) for initial screens, and 3.0% (target <5%) for subsequent screens. The 2 year referral to assessment rate for initial screens was significantly above the target range of <10% for BSHC (14.4%) and BSC (11.4%).

False positives and positive predictive value
The proportion of false positives for women aged 50-69 years for the 6 month period was 7.9% for initial screens (target <9%), and 2.2% for subsequent screens (target <4%). The positive predictive value (PPV) for the programme for the 6 month reporting period was 11.8% for initial screens and 19.5% for subsequent screens, for women aged 50-69 years.

Technical recall
Technical recall rates for fixed sites for the 2-year period achieved the target of <0.5% for BSA and continue to show a satisfactory level trend overall - and for the majority of Lead Providers, with the exception of BSC. Technical recall rates for mobile sites exceeded the target value of <3% overall for BSA for the 2-year period (although has remained <4%), 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 501 cases of DCIS or invasive cancer (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 six-month period (DCIS and invasive combined) for women 50-69 years was 10.8 per 1,000 for initial screens and 5.5 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 10.1 per 1,000 for initial screens and 5.7 per 1,000 for subsequent screens. This represented 1,893 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. Declining trends in cancer detection are evident in BSSL for initial and subsequent screens.

The proportion of DCIS of all cancers for women aged 50-69 over the biennium was 21.2%, ranging from 13.8% to 26.5% 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 7.8 per 1,000 women screened for initial screens (achieving the target of ≥ 6.1 per 1,000) and 4.4 per 1,000 for subsequent screens (achieving the target of ≥ 3.45 per 1,000). This represented 1,465 invasive cancers detected by BSA for the 2-year reporting period. The overall proportion of node negative cancers (of all invasive cancers) was 75.0% for initial screens (target >70%) and 78.4% for subsequent screens (target >75%).

Invasive cancer detected ≤ 10mm
For women 50-69 years the overall proportion of screen detected invasive cancers ≤ 10mm in size for the 2-year period was 25.7% for initial screens (target ≥ 25%) and 39.3% for subsequent screens (target ≥ 30%). The corresponding detection rates per 10,000 women screened for invasive cancers ≤ 10mm were better than the target value at 20.0 for initial screens (target ≥ 15.2 per 10,000 screens) and 17.3 for subsequent screens (target ≥ 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 41.8% for initial screens (which continues to be significantly below the target value of >50%) and 57.3% 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 32.4 for initial screens (target value >30.5 per 10,000 screens) and 25.1 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 96.7% for women 50-69 years, which was higher than the target value of ≥ 90%.

Assessment
The overall proportion of women offered a first assessment within 15 working days for the biennium for women 50-69 years was 82.4%, which was below the target value of 90%. Trend data for this indicator show stable estimates for the programme overall in the most recent period. There is a continued significant decline in BSAL, and also in BSHC, but for the most recent period the latter has shown an increase. BSCtoC and BSC have shown increasing trends to be on target, while BSSL remains above target.

Time taken from assessment to final diagnostic biopsy
The proportion of women receiving an open biopsy within 20 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 68.1%. For the 6-month period the overall proportion receiving an open biopsy within 20 working days was 70.1% for women 50-69 years.

The proportion of women who received their final diagnostic biopsy results within 5 working days was 86.6% for 2 year data, which was on target for this indicator (target value 90%). The overall proportion for the 6-month period was also 86.6% for women aged 50-69 years. BSWN and BSM are below the target for 2 year data.

5. Specific summary comments for each Lead Provider

For the following summary comments, indicators for each Lead Provider are included where targets were significantly exceeded, and also for targets not achieved. Specifically, indicators are noted if: (i) Lead Providers significantly exceeded targets for biennial indicators (i.e. exceeded the target by ≥10% and was statistically significant), or (ii) Lead Providers were below target (≥5% difference in magnitude, and statistically significant).

BreastScreen Waitemata and North (BSWN)
BSWN was either on target or exceeded targets for almost all biennial indicators for women in the 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 initial and subsequent screens, small cancer detection for subsequent screens, technical recall rates at fixed sites, the percentage of rejected films at fixed and mobile sites, benign open biopsy rates in women attending for initial and subsequent screens, false positive rates, and preoperative diagnosis of cancer. Following on sustained increases in coverage for Pacific women, BSWN is now on target for this indicator. Targets were not achieved for overall coverage (64.4%, target value 70%) and Maori coverage (62.1%, target value 70%), and also technical recall rates for mobile sites (3.7%, target value <3%), the percentage of women offered first assessment within 15 working days (81.7%, target 90% for subsequent screens), the percentage of women receiving an open biopsy within 20 working days (63.6%, target 90%), and the proportion of women receiving final biopsy results within 5 working days (83.7%, target 90%).

BreastScreen Counties Manukau (BSCM)
BSCM were either on target or exceeded targets for almost all biennial indicators for women in the 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, technical recall at fixed sites, invasive cancer detection for subsequent screens, small invasive cancer detection for subsequent screens, benign open biopsy rates in women attending for a subsequent screen, false positive rates for subsequent screens, pre-operative diagnosis of cancer, technical recall rates at fixed sites and the percentage of rejected films (fixed and mobile) sites. Targets were not achieved for overall coverage (55.3%, target value 70%), Pacific coverage (53.0%, target value 70%) and Maori coverage (50.8%, target value 70%), and also the percentage of women eligible for re-screen who were re-screened

within 27 months (75.3%, target 85%) - with a declining trend, percentage of women offered first assessment within 15 working days for subsequent screens (80.8%, target 90%), and percentage of women receiving needle biopsy within 5 working days (82.2%, target 90%).

BreastScreen Auckland Limited (BSAL)
BSAL was 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, invasive cancer detection, the percentage of rejected films at fixed and mobile sites, technical recall rates for fixed sites, benign biopsy rates for subsequent screens, preoperative diagnosis of cancer, and false positive rates for subsequent screens. Targets were not achieved for overall coverage (53.4%, target value 70%), Pacific coverage (59.1%, target value 70%) and Maori coverage (45.4%, target value 70%), technical recall rates for mobile sites (4.0%, target value <3%), and the percentage of women offered first assessment within 15 working days (71.4%, target 90%) with a continued significant decline.

BreastScreen Midland (BSM)
BSM was 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 for subsequent screens, the percentage of rejected films at fixed and mobile sites, preoperative diagnosis of cancer, false positive rates for subsequent screens, proportion of node negative cancers for subsequent screens, and benign biopsies for subsequent screens. Targets were not achieved for overall coverage (60.7%, target value 70%), Pacific coverage (53.0%, target value 70%) and Maori coverage (43.8%, target value 70%), the percentage of women receiving needle biopsy within 5 working days (82.6%, target 90%), the percentage of women offered first assessment within 15 working days (83.7%, target 90%), the percentage of women receiving an open biopsy within 20 working days (48.2%, target 90%), and the proportion of women receiving final biopsy results within 5 working days (78.1%, target 90%). The percentage of women eligible for re-screen who were re-screened within 27 months was below target (73.4%, target 85%) and 20-24 months re-screen was also below target (52.1%, target 75%); although there is an improvement in the proportion re-screened within 27 months for the most recent 6 months covered by this report.

BreastScreen Coast to Coast (BSCtoC)
BSCtoC was 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 both initial and subsequent screen, invasive cancer detection rates for subsuequent screens, benign open biopsy rates, technical recall rates at fixed sites, the percentage of rejected films at fixed and mobile sites, false positive rates, and preoperative diagnosis of cancer. Biennial coverage BSCtoC continues to increase and is now on target. For offer of assessment within the specified time, BSCtoC has shown increasing trends and is now on target. Targets were not achieved for Pacific coverage (53.2%, target value 70%) and Maori coverage (50.6%, target value 70%), technical recall rates for mobile sites (3.6%, target value <3%), and the percentage of women receiving an open biopsy within 20 working days (27.8%, target 90%).

BreastScreen Central (BSC)
BSC was 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, benign open biopsy rates in women attending for a subsequent screen, and preoperative diagnosis of cancer. Biennial coverage in BSC continues to increase it is now on target. For offer of assessment within the specified time, BSC has shown increasing trends and is now on target. Targets were not achieved for Pacific coverage (50.7%, target value 70%) and Maori coverage (58.4%, target value 70%), technical recall rates for fixed (0.8%, target value 0.5%) and mobile sites (4.6%, target value <3%), and referrals to assessment for initial screens (11.4%, target value 10%).

BreastScreen South Limited (BSSL)
BSSL was 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, small cancer detection for subsequent screens, benign open biopsy rates, technical recall rates at fixed and mobile sites and the percentage of rejected films for both mobile and fixed sites, false positive rates for subsequent screens, and preoperative diagnosis of cancer. Targets were not achieved for the

proportion of invasive cancers <15mm for initial screens (11.8, target 50%), and the detection rate for invasive cancer <15mm for initial screens (5.8 per10,000, target 30.5). Declining trends in cancer detection are evident for initial screens in BSSL (see comments regarding initial cancer detection rates under Technical Notes).

BreastScreen Health Care (BSHC)
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, technical recall rates for fixed sites, benign open biopsy rates for women attending for a subsequent screen, the percentage of rejected films for both mobile and fixed sites, false positive rates in subsequent screens, and preoperative diagnosis of breast cancer. Targets were not achieved for Pacific coverage (58.3, target 70%) and Maori coverage (57.9%, target value 70%), technical recall rates for mobile sites (4.6%, target value <3%), and false positive rates for initial screens (13.3%, target <9%). Additional targets not achieved included the percentage of women referred to assessment for initial screens (14.4%, target <10%) but showing an improvement for the current six month period following a continuing an increasing trend across previous reporting periods, percentage of cancers from referral to assessment for initial screens (5.2%, target ≥9%), the estimated specificity (the proportion of women without breast cancer at screening who have a negative screen result) for initial screens (87.3%, target value >93%), and the percentage of women offered first assessment within 15 working days (39.6%, target 90%), although the most recent 6 month figures show a commendable improvement to 64.9% from 24.8% for the six months January to June 2009. In addition, BSHC cancer detection for both initial and subsequent screens 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 of women having receiving an open biopsy within 20 working days (5c.2)

BSA ADVISORY GROUP DRAFT COMMENTS AND RECOMMENDATIONS

1. Coverage

The BSA Advisory Group is pleased to note the sustained upward trend in overall coverage such that four services are now on target. The group would like to acknowledge the focused effort to decrease disparities while increasing overall coverage.

There is also a continued upward trend in coverage for Māori women (one service on target) and Pacific women (two services on target). However, the overall coverage is still below the target of 70% and Māori coverage is less than 50% in two services. Disparities in coverage for Māori and Pacific women still exist.

The BSA Advisory Group recommends that Lead Providers continue to simplify their enrolment processes to reduce multiple points of contact with women.

2. Time from Screening to First Offered Assessment

The BSA Advisory Group notes the improvement in time from screening to offer of assessment in BreastScreen Health Care (BSHC) for the most recent available 6 month data, although further improvement would be expected.

3. Re-screening

Reasons for the low re-screen rates in some services require investigation.

5. Timeliness of Open Biopsy

The NSU has changed 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.

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

6. In response to recommendations above, the BSA Advisory Group will consider Lead Provider feedback on the report at the next meeting.

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 New South Wales (UNSW), School of Public Health and Community Medicine (SPHCM), Sydney, 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 18 November 2010 at the Sunderland Room, Wellington Airport Conference Centre.

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 are 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 are not 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). Six-monthly 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 '✓✓' 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 '✓✓✓' 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 '✓' 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 0-4%, 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 are 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.

Initial cancer detection rates

As a mammographic screening programme matures the proportion of visits for initial screening diminish and the proportion of subsequent visits increase. During the most recent screening period for women 50-69 years, the proportion of initial screens are only 11%, whereas the subsequent screens are 89% (see table 1.a.2). As well as a reduction in absolute numbers with maturity (thus widening 95% CIs of rates), the age profile of women changes from all age groups 50-69 years at the beginning of the programme, to mostly younger age groups (new entrants to the programme) at maturity. Since the breast cancer incidence rate in younger women is lower than older women, the cancer detection rate from screening will decrease as the age profile of the initial screens becomes younger. The above should be borne in mind when interpreting cancer detection rates from initial screens.

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 and 95% confidence intervals (Table reference in brackets)

Percent difference from target
(Values >0 have reached target value)

| | -200 | -100 | 0 | 100 | 200 |

%Cancers from referral to assessment, Subsequent (2f.2)
%Rejected films, Mobile (2c.2)
Benign open biopsy rate, Subsequent (2m.2)
%Rejected films, Fixed (2c.2)
Invasive cancers <=10mm per 10,000 screens, Subsequent (3b.2)
Technical recall rate, Fixed (2b.2)
Invasive cancers <15mm per 10,000 screens, Subsequent (3c.2)
Benign open biopsy rate, Initial (2m.2)
False positive rate, Subsequent (2e.2)
%Referral to assessment, Subsequent (2d.2)
%Preoperative diagnosis of cancer (2h)
Invasive cancers <=10mm per 10,000 screens, Initial (3b.2)
%Invasive cancers <=10mm, Subsequent (3b.1)
Invasive cancer detection rate, Initial (3a.2b)
Invasive cancer detection rate, Subsequent (3a.2b)
%Invasive cancers <15mm, Subsequent (3c.1)
Four films or fewer, Fixed (2a.2)
%Cancers from referral to assessment, Initial (2f.2)
Four films or fewer, Mobile (2a.2)
Re-screen, 20-24 months (1b.2)
%Notified of results <10 days (5a)
Invasive cancers <15mm per 10,000 screens, Initial (3c.2)
Specificity, Subsequent (2l.2)
False positive rate, Initial (2e.2)
%Invasive cancers <=10mm, Initial (3b.1)
Re-screen within 27 months (1b.1)
%Referral to assessment, Initial (2d.2)
%Receiving needle biopsy <5 days after assessment (5c.1)
Specificity, Initial (2l.2)
Coverage, Other (1a.7)
%Final diagnostic biopsy results <5 days (5d)
Overall coverage (1a.1)
%Offered first assessment appointment <15 days (5b)
%Invasive cancers <15mm, Initial (3c.1)
Coverage, Pacific (1a.7)
Coverage, Maori (1a.7)
%Open biopsy <20 working days (5c.2)
Technical recall rate, Mobile (2b.2)

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

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

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 and 95% confidence intervals (Table reference in brackets).

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

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 and 95% confidence intervals (Table reference in brackets).

Percent difference from target
(Values >0 have reached target value)

-200   -100   0   100   200

%Cancers from referral to assessment, Subsequent (2f.2)
Technical recall rate, Fixed (2b.2)
%Rejected films, Mobile (2c.2)
Invasive cancers <=10mm per 10,000 screens, Subsequent (3b.2)
Invasive cancers <15mm per 10,000 screens, Subsequent (3c.2)
%Rejected films, Fixed (2c.2)
Benign open biopsy rate, Subsequent (2m.2)
Invasive cancer detection rate, Subsequent (3a.2b)
False positive rate, Subsequent (2e.2)
%Preoperative diagnosis of cancer (2h)
%Referral to assessment, Subsequent (2d.2)
Invasive cancers <=10mm per 10,000 screens, Initial (3b.2)
%Invasive cancers <=10mm, Subsequent (3b.1)
Invasive cancer detection rate, Initial (3a.2b)
Benign open biopsy rate, Initial (2m.2)
%Cancers from referral to assessment, Initial (2f.2)
%Invasive cancers <15mm, Subsequent (3c.1)
Technical recall rate, Mobile (2b.2)
Invasive cancers <15mm per 10,000 screens, Initial (3c.2)
Four films or fewer, Mobile (2a.2)
Four films or fewer, Fixed (2a.2)
%Notified of results <10 days (5a)
Re-screen, 20-24 months (1b.2)
Specificity, Subsequent (2l.2)
%Invasive cancers <=10mm, Initial (3b.1)
%Open biopsy <20 working days (5c.2)
%Final diagnostic biopsy results <5 days (5d)
False positive rate, Initial (2e.2)
Specificity, Initial (2l.2)
%Referral to assessment, Initial (2d.2)
%Receiving needle biopsy <5 days after assessment (5c.1)
%Offered first assessment appointment <15 days (5b)
Re-screen within 27 months (1b.1)
%Invasive cancers <15mm, Initial (3c.1)
Coverage, Other (1a.7)
Overall coverage (1a.1)
Coverage, Pacific (1a.7)
Coverage, Maori (1a.7)

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

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

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 and 95% confidence intervals (Table reference in brackets).

Percent difference from target
(Values >0 have reached target value)

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

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

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 and 95% confidence intervals (Table reference in brackets)

Percent difference from target
(Values >0 have reached target value)

%Cancers from referral to assessment, Subsequent (2f.2)
Invasive cancers <=10mm per 10,000 screens, Subsequent (3b.2)
%Rejected films, Fixed (2c.2)
%Rejected films, Mobile (2c.2)
Benign open biopsy rate, Subsequent (2m.2)
Invasive cancers <15mm per 10,000 screens, Subsequent (3c.2)
Benign open biopsy rate, Initial (2m.2)
%Invasive cancers <=10mm, Subsequent (3b.1)
%Preoperative diagnosis of cancer (2h)
Invasive cancer detection rate, Subsequent (3a.2b)
%Referral to assessment, Subsequent (2d.2)
False positive rate, Subsequent (2e.2)
Four films or fewer, Fixed (2a.2)
Invasive cancer detection rate, Initial (3a.2b)
%Invasive cancers <15mm, Subsequent (3c.1)
Four films or fewer, Mobile (2a.2)
Specificity, Subsequent (2l.2)
%Notified of results <10 days (5a)
%Referral to assessment, Initial (2d.2)
False positive rate, Initial (2e.2)
Technical recall rate, Fixed (2b.2)
Specificity, Initial (2l.2)
%Cancers from referral to assessment, Initial (2f.2)
Invasive cancers <=10mm per 10,000 screens, Initial (3b.2)
%Offered first assessment appointment <15 days (5b)
%Receiving needle biopsy <5 days after assessment (5c.1)
Coverage, Other (1a.7)
%Final diagnostic biopsy results <5 days (5d)
Overall coverage (1a.1)
Re-screen within 27 months (1b.1)
%Invasive cancers <=10mm, Initial (3b.1)
Invasive cancers <15mm per 10,000 screens, Initial (3c.2)
Coverage, Pacific (1a.7)
%Invasive cancers <15mm, Initial (3c.1)
Re-screen, 20-24 months (1b.2)
Coverage, Maori (1a.7)
%Open biopsy <20 working days (5c.2)
Technical recall rate, Mobile (2b.2)

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

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

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 and 95% confidence intervals (Table reference in brackets)

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

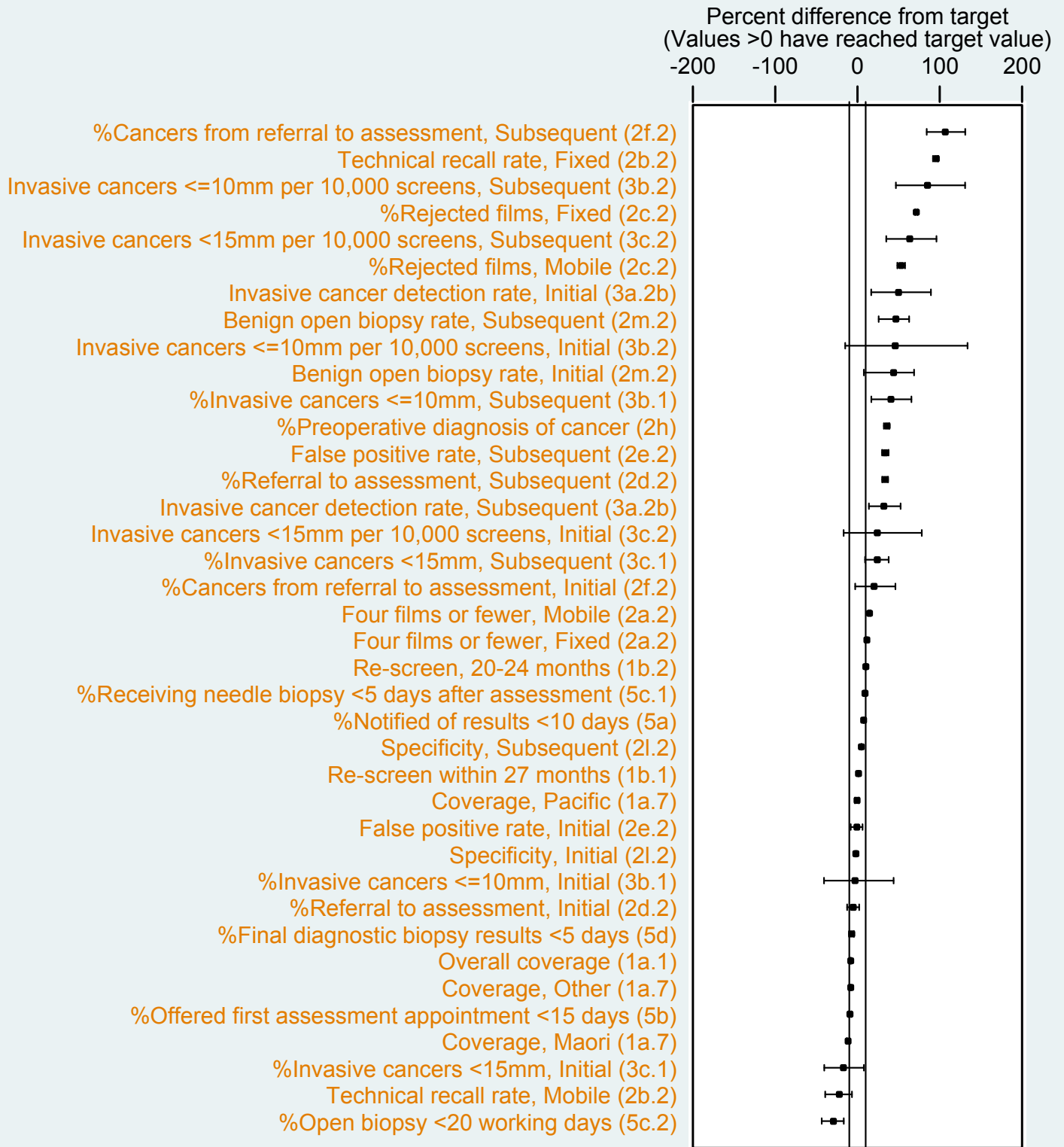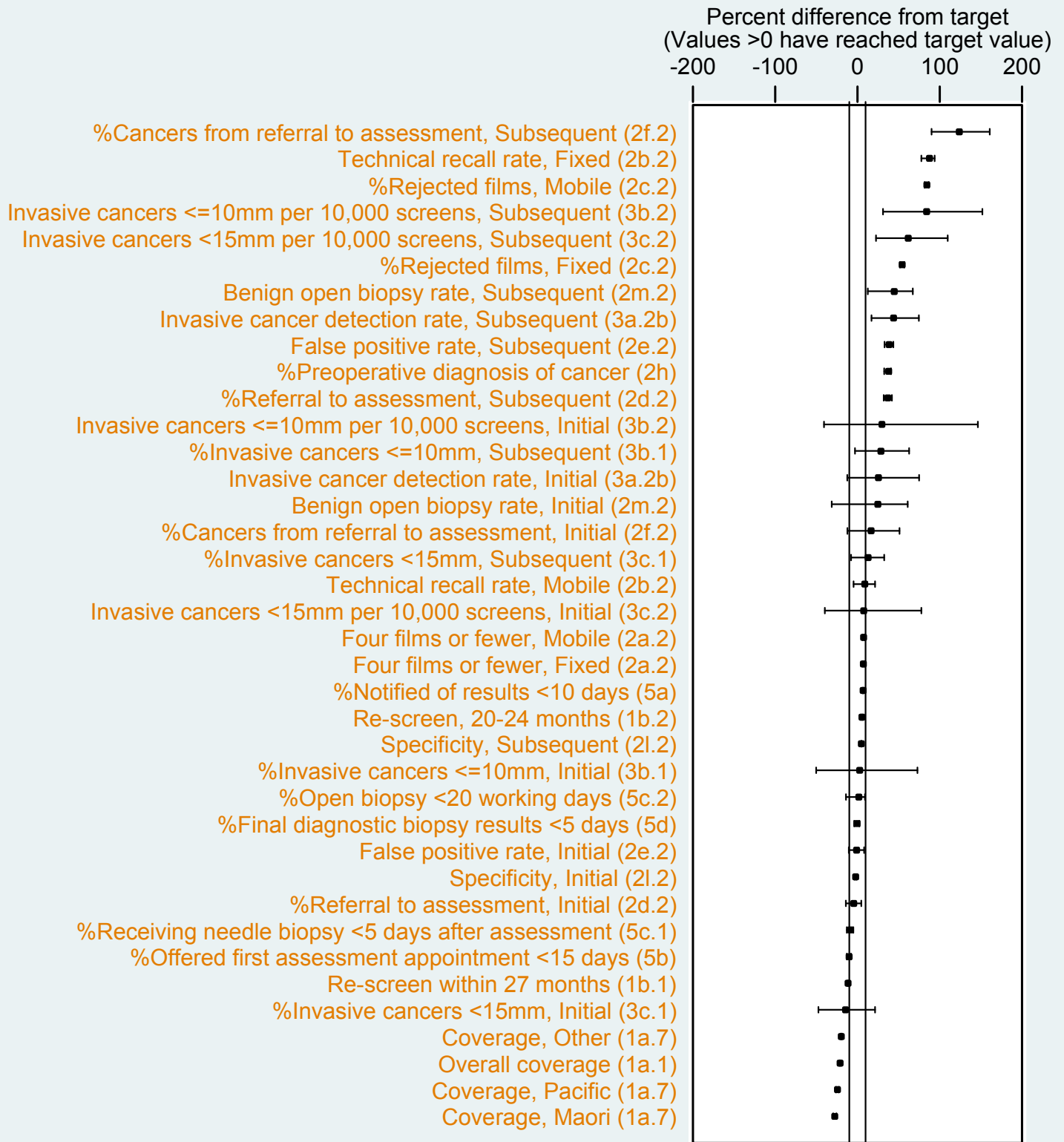# AT A GLANCE: BIENNIAL INDICATORS FOR WOMEN 50-69 YEARS

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 and 95% confidence intervals (Table reference in brackets)

Percent difference from target
(Values >0 have reached target value)

-200   -100   0   100   200

%Rejected films, Mobile (2c.2)
Benign open biopsy rate, Subsequent (2m.2)
%Cancers from referral to assessment, Subsequent (2f.2)
Invasive cancers <15mm per 10,000 screens, Initial (3c.2)
Invasive cancers <=10mm per 10,000 screens, Subsequent (3b.2)
Invasive cancers <=10mm per 10,000 screens, Initial (3b.2)
%Rejected films, Fixed (2c.2)
Invasive cancers <15mm per 10,000 screens, Subsequent (3c.2)
Invasive cancer detection rate, Initial (3a.2b)
Benign open biopsy rate, Initial (2m.2)
Invasive cancer detection rate, Subsequent (3a.2b)
%Preoperative diagnosis of cancer (2h)
%Referral to assessment, Subsequent (2d.2)
%Cancers from referral to assessment, Initial (2f.2)
%Invasive cancers <=10mm, Subsequent (3b.1)
False positive rate, Subsequent (2e.2)
%Invasive cancers <15mm, Initial (3c.1)
%Invasive cancers <15mm, Subsequent (3c.1)
Four films or fewer, Fixed (2a.2)
Re-screen, 20-24 months (1b.2)
%Notified of results <10 days (5a)
Four films or fewer, Mobile (2a.2)
%Invasive cancers <=10mm, Initial (3b.1)
Re-screen within 27 months (1b.1)
Specificity, Subsequent (2l.2)
%Receiving needle biopsy <5 days after assessment (5c.1)
%Offered first assessment appointment <15 days (5b)
%Final diagnostic biopsy results <5 days (5d)
Coverage, Other (1a.7)
Specificity, Initial (2l.2)
Overall coverage (1a.1)
False positive rate, Initial (2e.2)
%Referral to assessment, Initial (2d.2)
Coverage, Maori (1a.7)
%Open biopsy <20 working days (5c.2)
Coverage, Pacific (1a.7)
Technical recall rate, Fixed (2b.2)
Technical recall rate, Mobile (2b.2)

NB: The vertical line represent a ± 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 and 95% confidence intervals (Table reference in brackets)

Percent difference from target
(Values >0 have reached target value)

-200   -100   0   100   200

- %Cancers from referral to assessment, Subsequent (2f.2)
- Benign open biopsy rate, Subsequent (2m.2)
- %Rejected films, Mobile (2c.2)
- %Rejected films, Fixed (2c.2)
- Technical recall rate, Fixed (2b.2)
- Benign open biopsy rate, Initial (2m.2)
- Invasive cancers <=10mm per 10,000 screens, Subsequent (3b.2)
- %Referral to assessment, Subsequent (2d.2)
- False positive rate, Subsequent (2e.2)
- Technical recall rate, Mobile (2b.2)
- Invasive cancers <15mm per 10,000 screens, Subsequent (3c.2)
- %Invasive cancers <=10mm, Subsequent (3b.1)
- %Preoperative diagnosis of cancer (2h)
- %Referral to assessment, Initial (2d.2)
- False positive rate, Initial (2e.2)
- %Invasive cancers <15mm, Subsequent (3c.1)
- Re-screen, 20-24 months (1b.2)
- Four films or fewer, Fixed (2a.2)
- Overall coverage (1a.1)
- Coverage, Other (1a.7)
- Coverage, Pacific (1a.7)
- Four films or fewer, Mobile (2a.2)
- Coverage, Maori (1a.7)
- Invasive cancer detection rate, Subsequent (3a.2b)
- %Notified of results <10 days (5a)
- Re-screen within 27 months (1b.1)
- Specificity, Subsequent (2l.2)
- %Offered first assessment appointment <15 days (5b)
- %Cancers from referral to assessment, Initial (2f.2)
- Specificity, Initial (2l.2)
- %Final diagnostic biopsy results <5 days (5d)
- %Open biopsy <20 working days (5c.2)
- %Receiving needle biopsy <5 days after assessment (5c.1)
- Invasive cancer detection rate, Initial (3a.2b)
- %Invasive cancers <=10mm, Initial (3b.1)
- Invasive cancers <=10mm per 10,000 screens, Initial (3b.2)
- %Invasive cancers <15mm, Initial (3c.1)
- Invasive cancers <15mm per 10,000 screens, Initial (3c.2)

NB: The vertical line represent a $\pm$ 10% difference between the observed value and the target value.
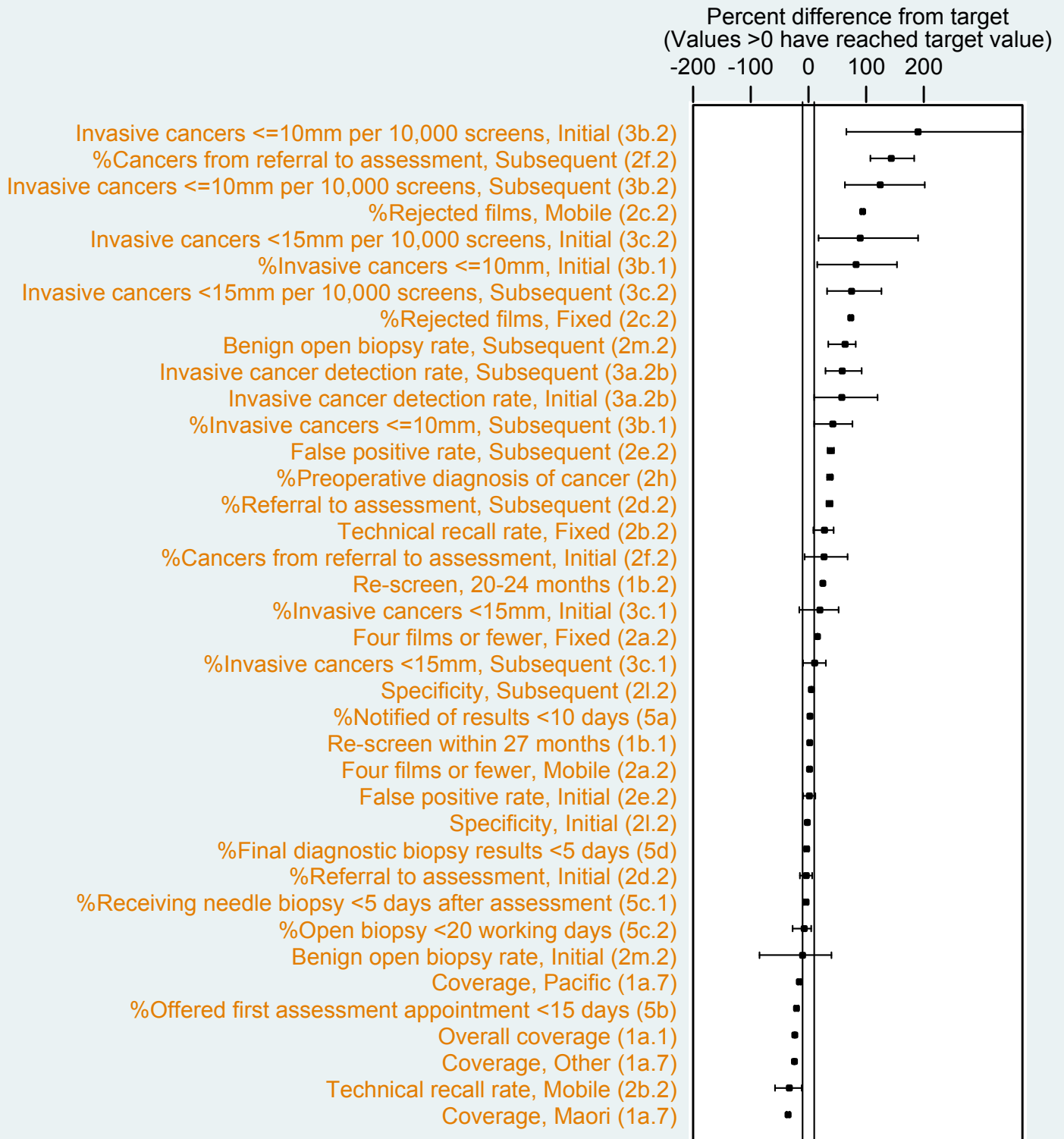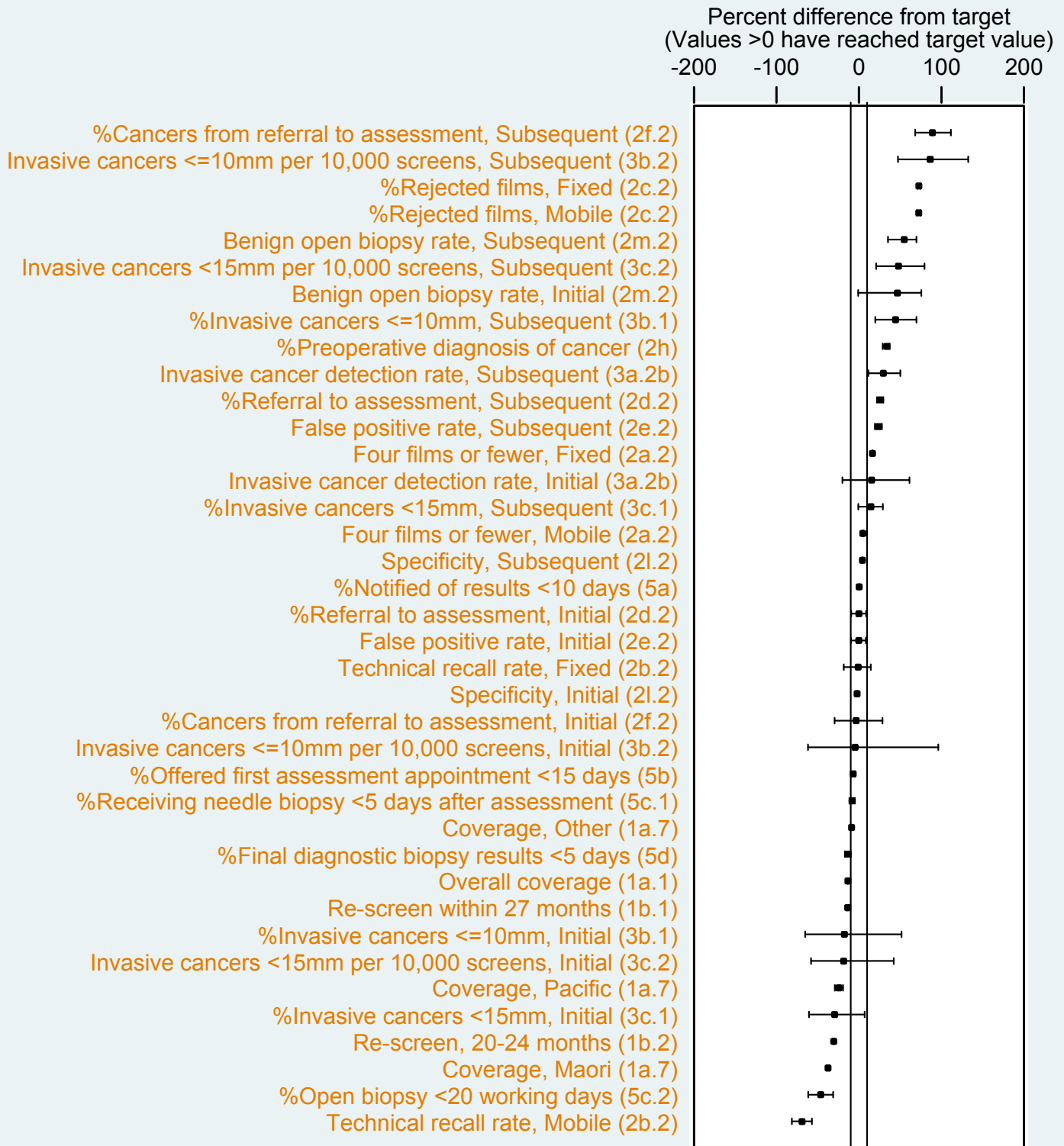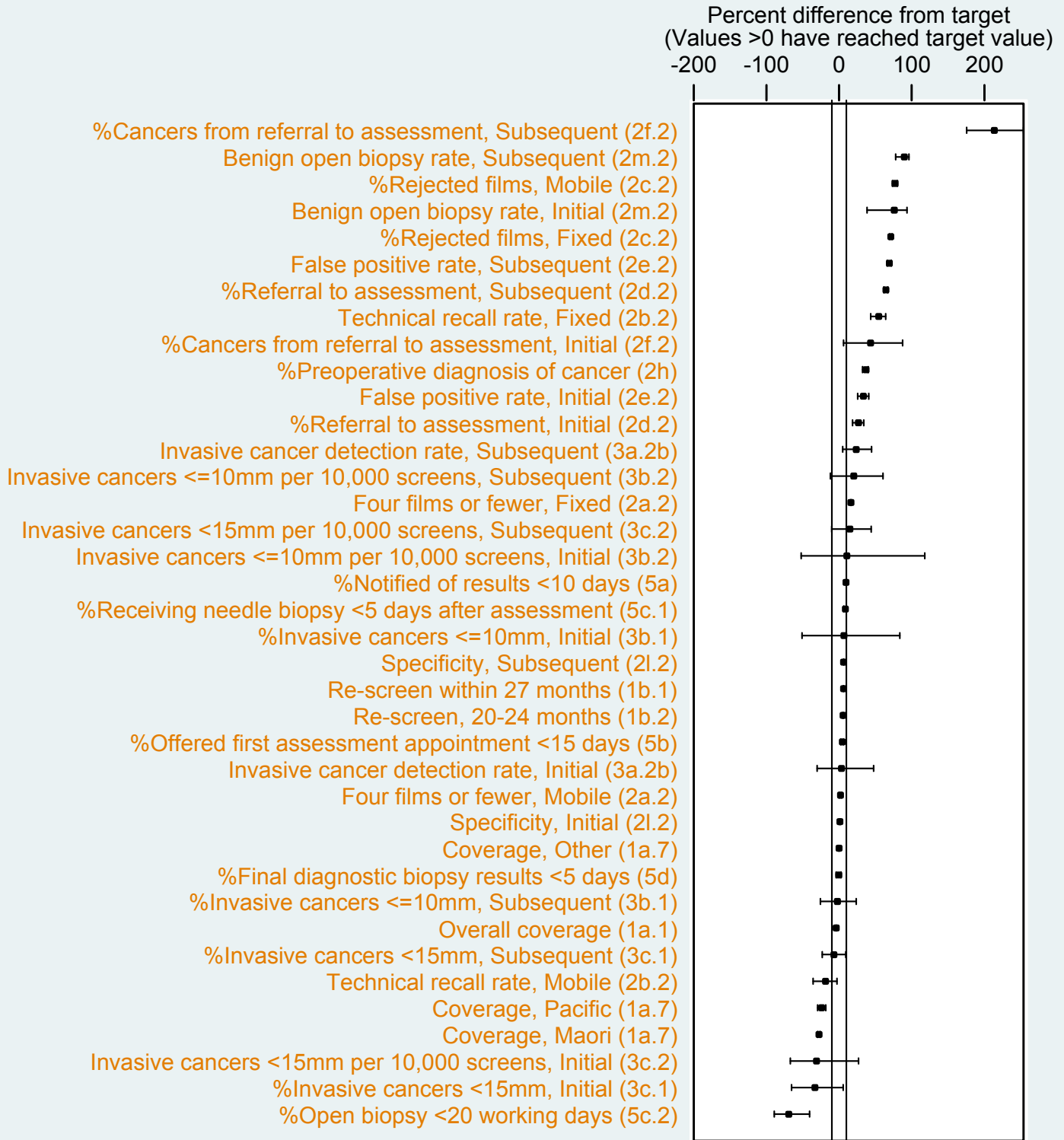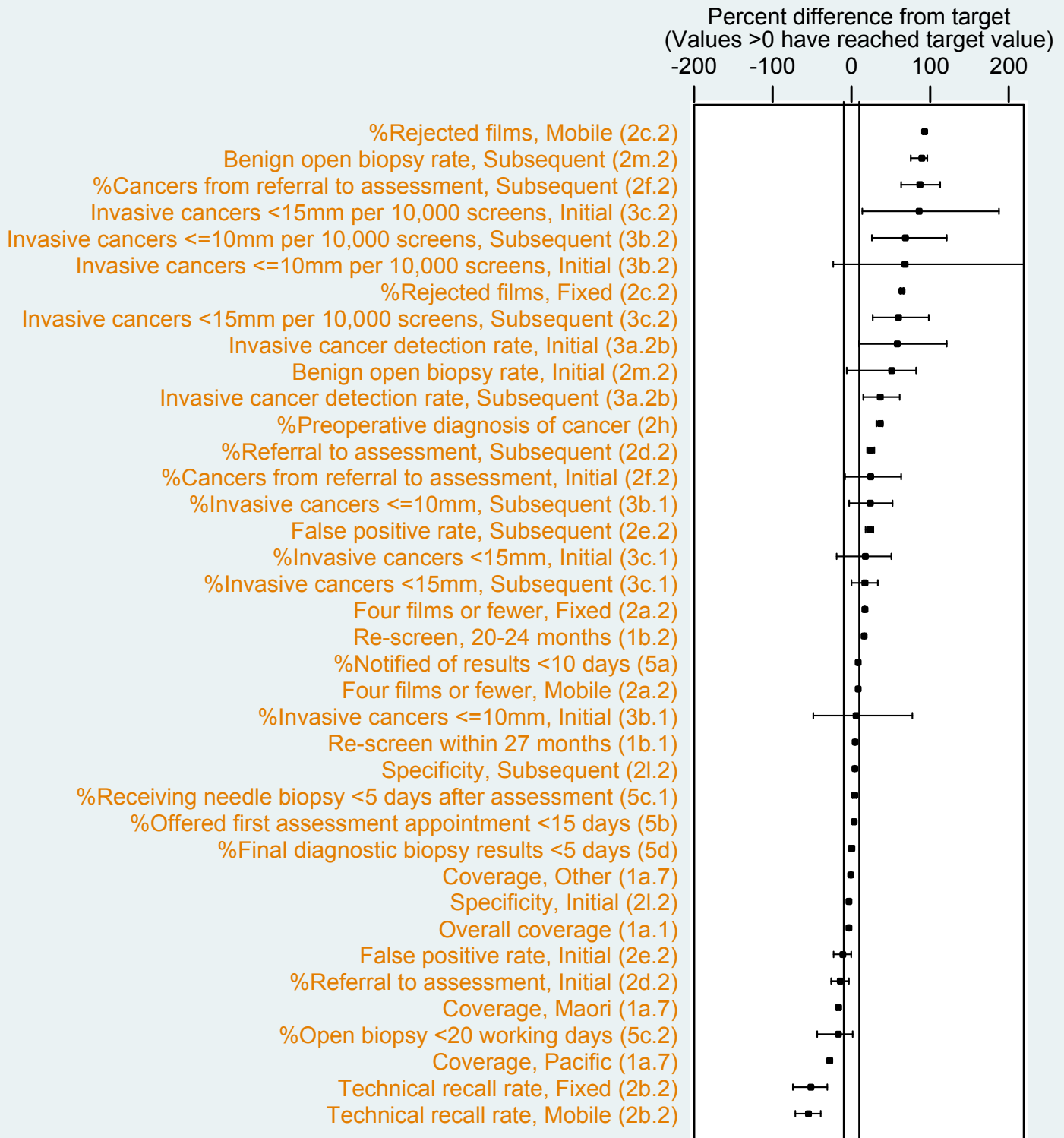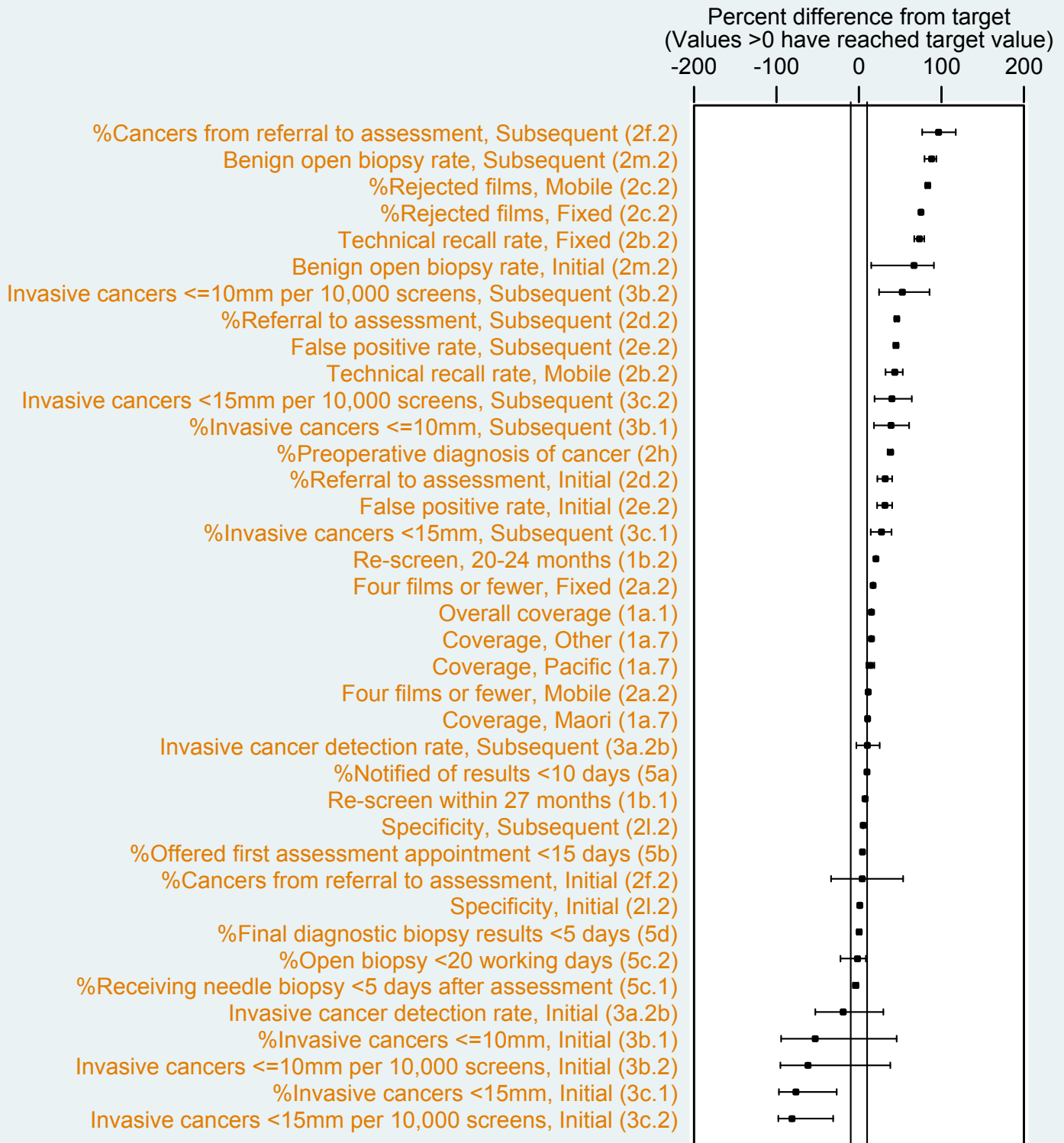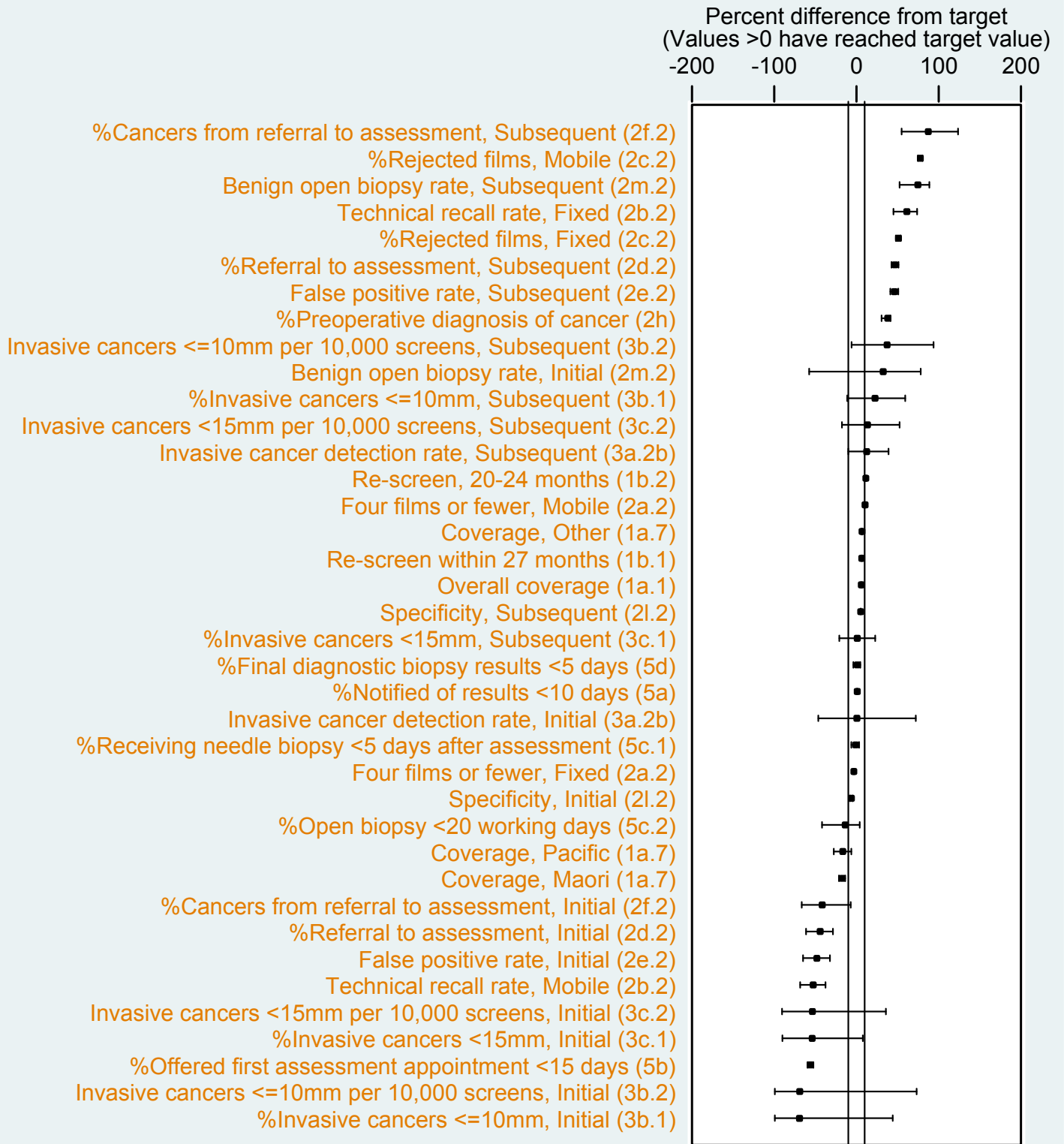
AT A GLANCE: BIENNIAL INDICATORS FOR WOMEN 50-69 YEARS

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 and 95% confidence intervals (Table reference in brackets)

Percent difference from target
(Values >0 have reached target value)

-200   -100   0   100   200

%Cancers from referral to assessment, Subsequent (2f.2)
%Rejected films, Mobile (2c.2)
Benign open biopsy rate, Subsequent (2m.2)
Technical recall rate, Fixed (2b.2)
%Rejected films, Fixed (2c.2)
%Referral to assessment, Subsequent (2d.2)
False positive rate, Subsequent (2e.2)
%Preoperative diagnosis of cancer (2h)
Invasive cancers <=10mm per 10,000 screens, Subsequent (3b.2)
Benign open biopsy rate, Initial (2m.2)
%Invasive cancers <=10mm, Subsequent (3b.1)
Invasive cancers <15mm per 10,000 screens, Subsequent (3c.2)
Invasive cancer detection rate, Subsequent (3a.2b)
Re-screen, 20-24 months (1b.2)
Four films or fewer, Mobile (2a.2)
Coverage, Other (1a.7)
Re-screen within 27 months (1b.1)
Overall coverage (1a.1)
Specificity, Subsequent (2l.2)
%Invasive cancers <15mm, Subsequent (3c.1)
%Final diagnostic biopsy results <5 days (5d)
%Notified of results <10 days (5a)
Invasive cancer detection rate, Initial (3a.2b)
%Receiving needle biopsy <5 days after assessment (5c.1)
Four films or fewer, Fixed (2a.2)
Specificity, Initial (2l.2)
%Open biopsy <20 working days (5c.2)
Coverage, Pacific (1a.7)
Coverage, Maori (1a.7)
%Cancers from referral to assessment, Initial (2f.2)
%Referral to assessment, Initial (2d.2)
False positive rate, Initial (2e.2)
Technical recall rate, Mobile (2b.2)
Invasive cancers <15mm per 10,000 screens, Initial (3c.2)
%Invasive cancers <15mm, Initial (3c.1)
%Offered first assessment appointment <15 days (5b)
Invasive cancers <=10mm per 10,000 screens, Initial (3b.2)
%Invasive cancers <=10mm, Initial (3b.1)

NB: The vertical line represent a ± 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: ≥ 70% of eligible women receive a screen within the programme in the most recent 24-month period

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

	6 months			2 years				
	Number of women screened	Eligible Population	% (95%CI)	Number of women screened	Eligible Population	% (95%CI)		
45-49 years								
BSWN	4,835	27,185	17.8 (17.3-18.2)	17,021	27,185	62.6 (62.0-63.2)		
BSCM	2,883	16,900	17.1 (16.5-17.6)	8,775	16,900	51.9 (51.2-52.7)		
BSAL	2,012	17,090	11.8 (11.3-12.3)	8,187	17,090	47.9 (47.2-48.7)		
BSM	3,603	24,930	14.5 (14.0-14.9)	12,134	24,930	48.7 (48.1-49.3)		
BSCtoC	3,566	20,795	17.1 (16.6-17.7)	12,329	20,795	59.3 (58.6-60.0)		
BSC	3,219	18,560	17.3 (16.8-17.9)	10,224	18,560	55.1 (54.4-55.8)		
BSSL	5,106	27,600	18.5 (18.0-19.0)	23,861	27,600	86.5 (86.0-86.9)		
BSHC	2,256	11,285	20.0 (19.3-20.7)	7,481	11,285	66.3 (65.4-67.2)		
BSA Total	27,480	164,345	16.7 (16.5-16.9)	100,012	164,345	60.9 (60.6-61.1)		
50-69 years								
BSWN	13,692	75,585	18.1 (17.8-18.4)	48,674	75,585	64.4 (64.1-64.7)	××	*
BSCM	6,997	45,060	15.5 (15.2-15.9)	24,910	45,060	55.3 (54.8-55.7)	×××	*
BSAL	5,315	42,030	12.6 (12.3-13.0)	22,462	42,030	53.4 (53.0-53.9)	×××	*
BSM	12,131	74,240	16.3 (16.1-16.6)	45,069	74,240	60.7 (60.4-61.1)	×××	*
BSCtoC	10,870	61,755	17.6 (17.3-17.9)	41,536	61,755	67.3 (66.9-67.6)	✓	*
BSC	9,109	48,880	18.6 (18.3-19.0)	33,186	48,880	67.9 (67.5-68.3)	✓	*
BSSL	17,635	83,080	21.2 (20.9-21.5)	67,021	83,080	80.7 (80.4-80.9)	✓✓✓	*
BSHC	6,711	33,040	20.3 (19.9-20.7)	24,512	33,040	74.2 (73.7-74.7)	✓✓	*
BSA Total	82,460	463,670	17.8 (17.7-17.9)	307,370	463,670	66.3 (66.2-66.4)	××	*

Note: Eligible populations are 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 1a.1: Trends in 6 month coverage of eligible women
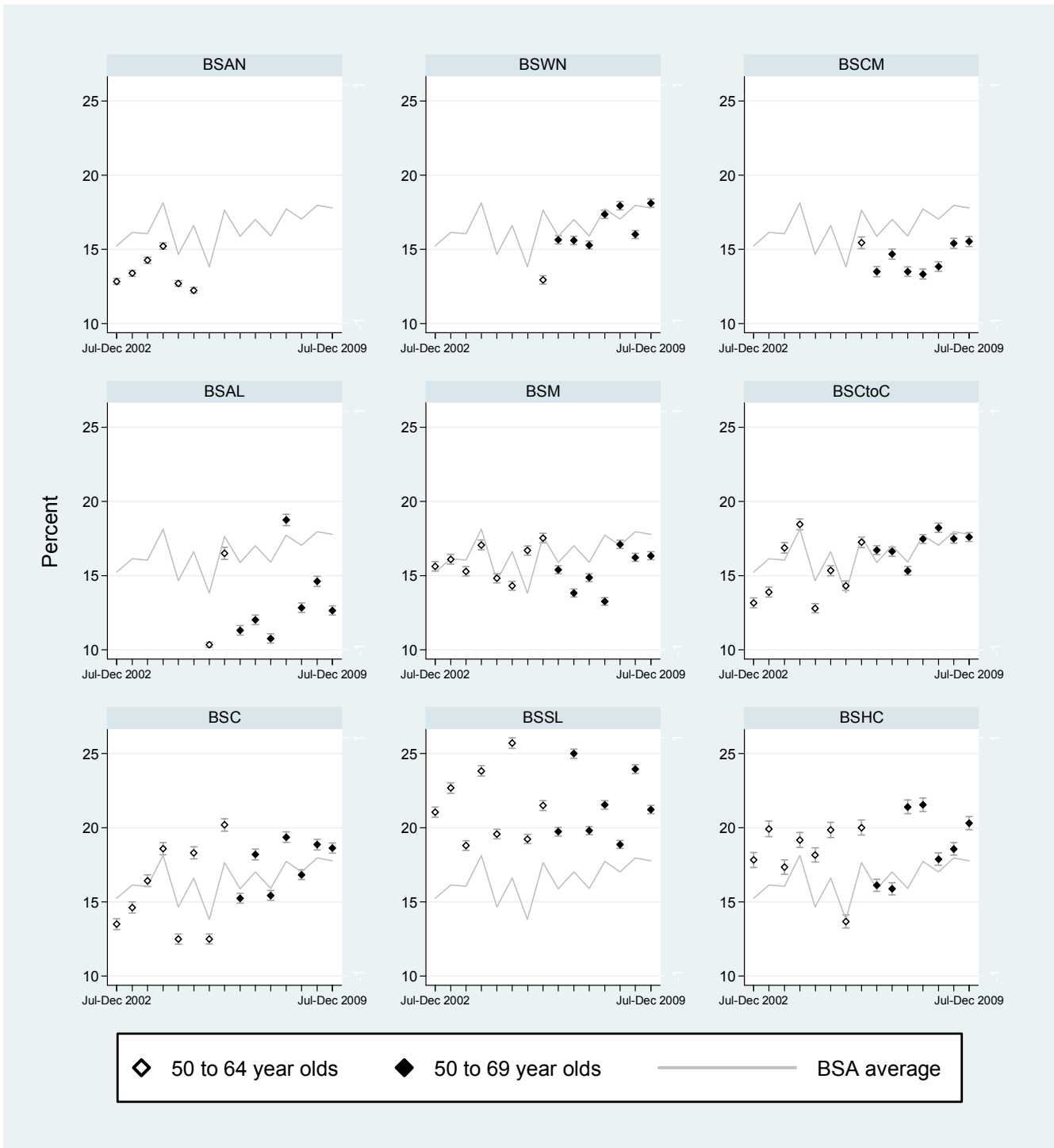
**Figure 1a.1: Trends in biennial coverage of eligible women**

BSA Screening and Assessment Report - Women screened January 2008-December 2009   24
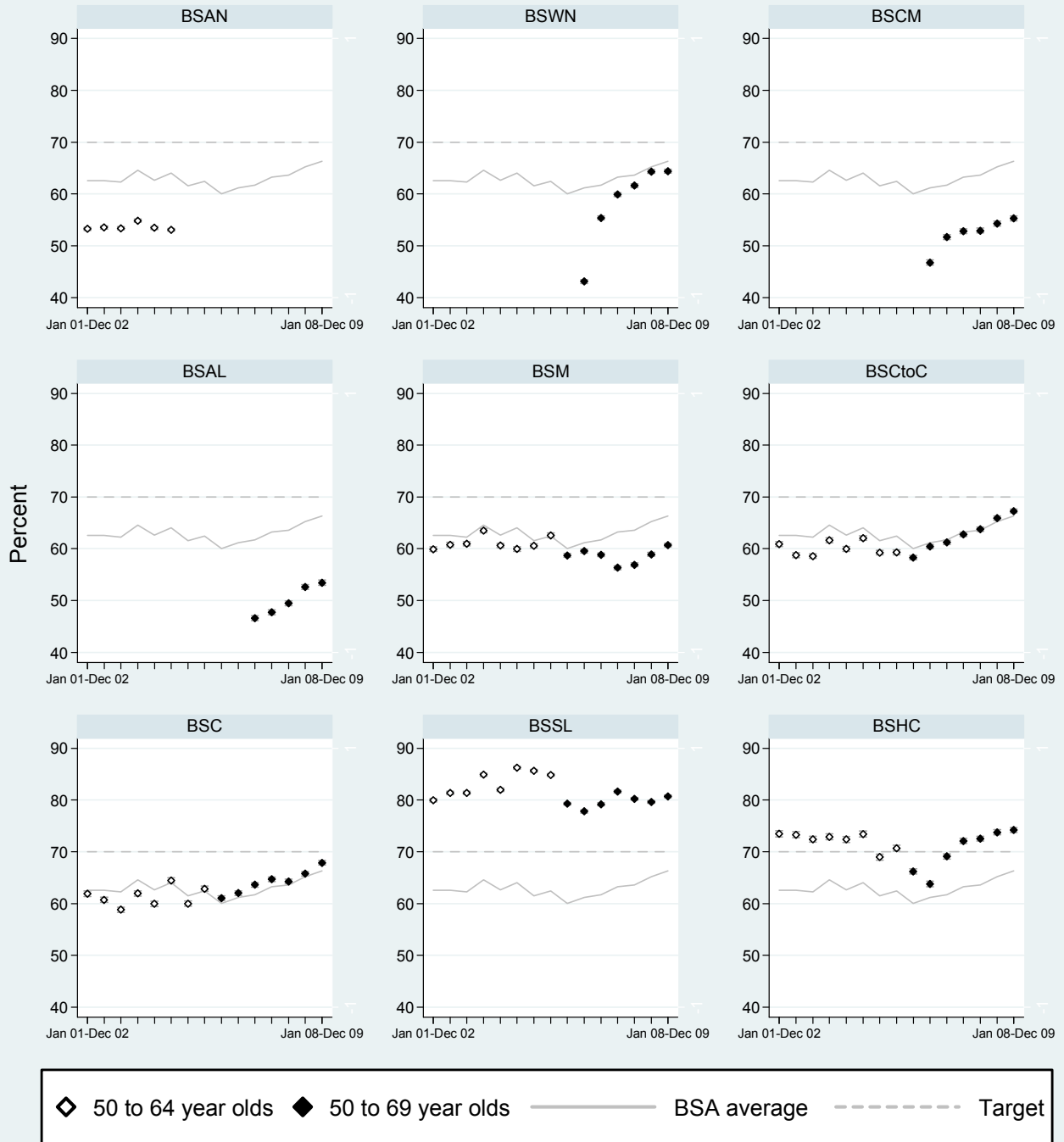
**1.a.2. The percentage of screens that are initial and subsequent screens**

Table 1.a.2. The percentage of screens that are initial and subsequent screens, 2 years

	Initial screens	Number of women screened	% (95%CI)	Subsequent screens	Number of women screened	% (95%CI)
45-49 years						
BSWN	10,111	17,021	59.4 (58.7-60.1)	6,910	17,021	40.6 (39.9-41.3)
BSCM	6,027	8,775	68.7 (67.7-69.7)	2,748	8,775	31.3 (30.3-32.3)
BSAL	4,915	8,187	60.0 (59.0-61.1)	3,272	8,187	40.0 (38.9-41.0)
BSM	6,895	12,134	56.8 (55.9-57.7)	5,239	12,134	43.2 (42.3-44.1)
BSCtoC	7,126	12,329	57.8 (56.9-58.7)	5,203	12,329	42.2 (41.3-43.1)
BSC	5,643	10,224	55.2 (54.2-56.2)	4,581	10,224	44.8 (43.8-45.8)
BSSL	11,081	23,861	46.4 (45.8-47.1)	12,780	23,861	53.6 (52.9-54.2)
BSHC	4,411	7,481	59.0 (57.8-60.1)	3,070	7,481	41.0 (39.9-42.2)
BSA Total	56,209	100,012	56.2 (55.9-56.5)	43,803	100,012	43.8 (43.5-44.1)
50-69 years						
BSWN	7,659	48,674	15.7 (15.4-16.1)	41,015	48,674	84.3 (83.9-84.6)
BSCM	4,563	24,910	18.3 (17.8-18.8)	20,347	24,910	81.7 (81.2-82.2)
BSAL	3,630	22,462	16.2 (15.7-16.6)	18,832	22,462	83.8 (83.4-84.3)
BSM	4,831	45,069	10.7 (10.4-11.0)	40,238	45,069	89.3 (89.0-89.6)
BSCtoC	4,758	41,536	11.5 (11.2-11.8)	36,778	41,536	88.5 (88.2-88.8)
BSC	3,522	33,186	10.6 (10.3-10.9)	29,664	33,186	89.4 (89.1-89.7)
BSSL	3,444	67,021	5.1 (5.0-5.3)	63,577	67,021	94.9 (94.7-95.0)
BSHC	2,117	24,512	8.6 (8.3-9.0)	22,395	24,512	91.4 (91.0-91.7)
BSA Total	34,524	307,370	11.2 (11.1-11.3)	272,846	307,370	88.8 (88.7-88.9)

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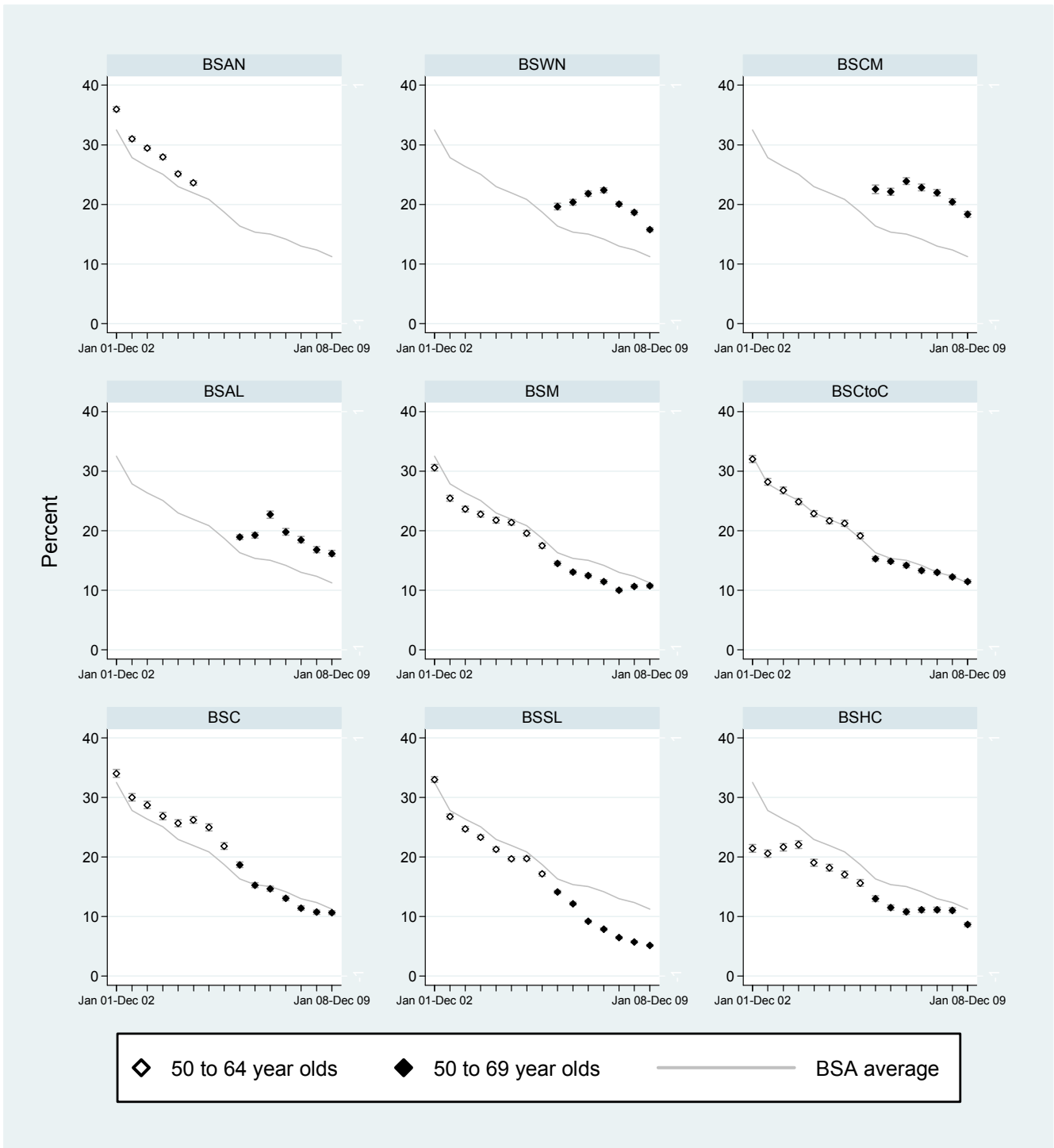
Figure 1a.2: Percentage of subsequent screens for each screening biennium

BSA Screening and Assessment Report - Women screened January 2008-December 2009
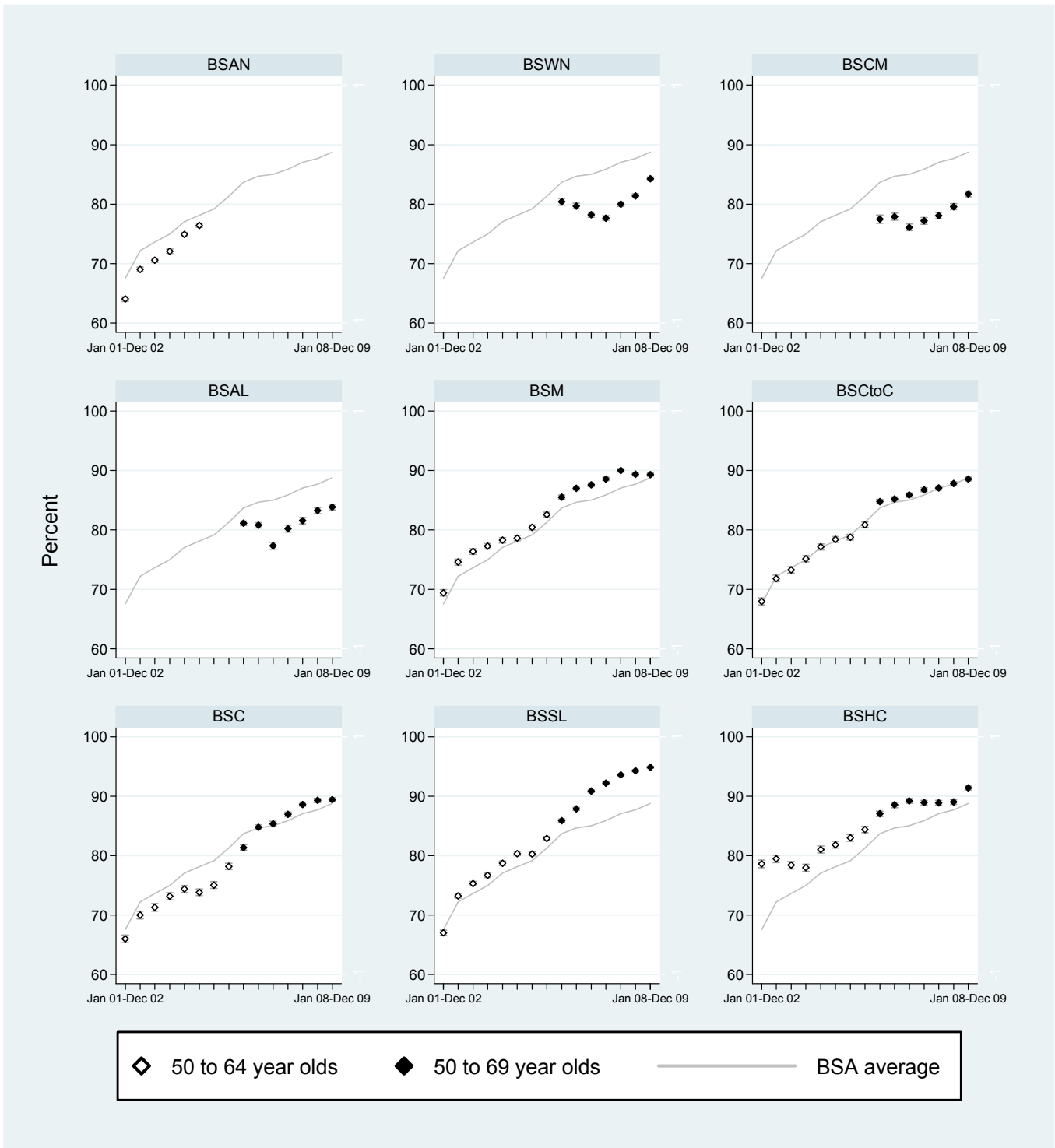
1.a.3. The percentage of women screened by type of screening unit

Table 1.a.3. Percentage of women screened by type of screening unit, 2 years

	Fixed site screens	Number of women screened	% (95%CI)	Mobile site screens	Number of women screened	% (95%CI)
45-49 years						
BSWN	14,924	17,021	87.7 (87.2-88.2)	2,097	17,021	12.3 (11.8-12.8)
BSCM	6,095	8,775	69.5 (68.5-70.4)	2,680	8,775	30.5 (29.6-31.5)
BSAL	6,986	8,187	85.3 (84.5-86.1)	1,201	8,187	14.7 (13.9-15.5)
BSM	8,316	12,134	68.5 (67.7-69.4)	3,818	12,134	31.5 (30.6-32.3)
BSCtoC	10,612	12,329	86.1 (85.4-86.7)	1,717	12,329	13.9 (13.3-14.6)
BSC	8,405	10,224	82.2 (81.5-82.9)	1,819	10,224	17.8 (17.1-18.5)
BSSL	21,285	23,861	89.2 (88.8-89.6)	2,576	23,861	10.8 (10.4-11.2)
BSHC	4,838	7,481	64.7 (63.6-65.8)	2,643	7,481	35.3 (34.2-36.4)
BSA Total	81,461	100,012	81.5 (81.2-81.7)	18,551	100,012	18.5 (18.3-18.8)
50-69 years						
BSWN	42,587	48,674	87.5 (87.2-87.8)	6,087	48,674	12.5 (12.2-12.8)
BSCM	17,726	24,910	71.2 (70.6-71.7)	7,184	24,910	28.8 (28.3-29.4)
BSAL	19,132	22,462	85.2 (84.7-85.6)	3,330	22,462	14.8 (14.4-15.3)
BSM	30,104	45,069	66.8 (66.4-67.2)	14,965	45,069	33.2 (32.8-33.6)
BSCtoC	35,741	41,536	86.0 (85.7-86.4)	5,795	41,536	14.0 (13.6-14.3)
BSC	25,357	33,186	76.4 (75.9-76.9)	7,829	33,186	23.6 (23.1-24.1)
BSSL	59,898	67,021	89.4 (89.1-89.6)	7,123	67,021	10.6 (10.4-10.9)
BSHC	16,029	24,512	65.4 (64.8-66.0)	8,483	24,512	34.6 (34.0-35.2)
BSA Total	246,574	307,370	80.2 (80.1-80.4)	60,796	307,370	19.8 (19.6-19.9)

Poisson 95% confidence intervals presented

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

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

	6 months			2 years				
	Number of women screened	Eligible Population	% (95%CI)	Number of women screened	Eligible Population	% (95%CI)		
50-54 years								
BSWN	3,781	23,560	16.0 (15.6-16.5)	14,227	23,560	60.4 (59.8-61.0)	✗✗✗	*
BSCM	2,103	14,215	14.8 (14.2-15.4)	7,535	14,215	53.0 (52.2-53.8)	✗✗✗	*
BSAL	1,565	14,040	11.1 (10.6-11.7)	7,012	14,040	49.9 (49.1-50.8)	✗✗✗	*
BSM	3,489	22,690	15.4 (14.9-15.9)	12,192	22,690	53.7 (53.1-54.4)	✗✗✗	*
BSCtoC	3,531	18,765	18.8 (18.3-19.4)	11,903	18,765	63.4 (62.7-64.1)	✗✗	*
BSC	2,769	15,205	18.2 (17.6-18.8)	9,659	15,205	63.5 (62.8-64.3)	✗✗	*
BSSL	6,878	25,185	27.3 (26.8-27.9)	19,834	25,185	78.8 (78.2-79.3)	✓✓✓	*
BSHC	2,407	10,125	23.8 (22.9-24.6)	7,413	10,125	73.2 (72.3-74.1)	✓	*
BSA Total	26,523	143,785	18.4 (18.2-18.6)	89,775	143,785	62.4 (62.2-62.7)	✗✗✗	*
55-59 years								
BSWN	3,595	20,155	17.8 (17.3-18.4)	13,083	20,155	64.9 (64.2-65.6)	✗✗	*
BSCM	1,878	12,230	15.4 (14.7-16.0)	6,769	12,230	55.3 (54.5-56.2)	✗✗✗	*
BSAL	1,405	11,660	12.0 (11.5-12.7)	6,330	11,660	54.3 (53.4-55.2)	✗✗✗	*
BSM	3,205	19,720	16.3 (15.7-16.8)	11,769	19,720	59.7 (59.0-60.4)	✗✗✗	*
BSCtoC	2,666	16,520	16.1 (15.6-16.7)	11,218	16,520	67.9 (67.2-68.6)	✓	*
BSC	2,432	13,110	18.6 (17.9-19.2)	9,047	13,110	69.0 (68.2-69.8)	✓	*
BSSL	4,064	22,370	18.2 (17.7-18.7)	18,081	22,370	80.8 (80.3-81.3)	✓✓✓	*
BSHC	1,720	8,690	19.8 (19.0-20.6)	6,531	8,690	75.2 (74.2-76.1)	✓✓	*
BSA Total	20,965	124,455	16.8 (16.6-17.1)	82,828	124,455	66.6 (66.3-66.8)	✓	*
60-64 years								
BSWN	3,574	18,030	19.8 (19.2-20.4)	12,015	18,030	66.6 (65.9-67.3)	✓	*
BSCM	1,755	10,610	16.5 (15.8-17.3)	6,093	10,610	57.4 (56.5-58.4)	✗✗✗	*
BSAL	1,349	9,450	14.3 (13.6-15.0)	5,368	9,450	56.8 (55.8-57.8)	✗✗✗	*
BSM	2,814	17,545	16.0 (15.5-16.6)	11,495	17,545	65.5 (64.8-66.2)	✗✗	*
BSCtoC	2,648	14,605	18.1 (17.5-18.8)	10,366	14,605	71.0 (70.2-71.7)	✓	*
BSC	2,306	11,755	19.6 (18.9-20.3)	8,186	11,755	69.6 (68.8-70.5)	✓	ns
BSSL	3,927	20,145	19.5 (18.9-20.0)	16,755	20,145	83.2 (82.6-83.7)	✓✓✓	*
BSHC	1,530	7,950	19.2 (18.4-20.1)	5,960	7,950	75.0 (74.0-75.9)	✓✓	*
BSA Total	19,903	110,090	18.1 (17.9-18.3)	76,238	110,090	69.3 (69.0-69.5)	✓	*
65-69 years								
BSWN	2,742	13,840	19.8 (19.2-20.5)	9,349	13,840	67.6 (66.8-68.3)	✓	*
BSCM	1,261	8,005	15.8 (15.0-16.6)	4,513	8,005	56.4 (55.3-57.5)	✗✗✗	*
BSAL	996	6,880	14.5 (13.7-15.3)	3,752	6,880	54.5 (53.3-55.7)	✗✗✗	*
BSM	2,623	14,285	18.4 (17.7-19.0)	9,613	14,285	67.3 (66.5-68.1)	✓	*
BSCtoC	2,025	11,865	17.1 (16.4-17.8)	8,049	11,865	67.8 (67.0-68.7)	✓	*
BSC	1,602	8,810	18.2 (17.4-19.0)	6,294	8,810	71.4 (70.5-72.4)	✓	*
BSSL	2,766	15,380	18.0 (17.4-18.6)	12,351	15,380	80.3 (79.7-80.9)	✓✓✓	*
BSHC	1,054	6,275	16.8 (15.9-17.7)	4,608	6,275	73.4 (72.3-74.5)	✓	*
BSA Total	15,069	85,340	17.7 (17.4-17.9)	58,529	85,340	68.6 (68.3-68.9)	✓	*

Note: Eligible populations are 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

1.a.7 Coverage by ethnicity

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

Table 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	573	3,460	16.6 (15.3-17.8)	1,955	3,460	56.5 (54.8-58.2)
BSCM	314	2,450	12.8 (11.5-14.2)	978	2,450	39.9 (38.0-41.9)
BSAL	140	1,160	12.1 (10.2-14.1)	533	1,160	45.9 (43.1-48.9)
BSM	542	5,380	10.1 (9.3-10.9)	1,797	5,380	33.4 (32.1-34.7)
BSCtoC	511	4,135	12.4 (11.4-13.4)	1,772	4,135	42.9 (41.3-44.4)
BSC	300	2,010	14.9 (13.4-16.6)	948	2,010	47.2 (45.0-49.4)
BSSL	281	1,620	17.3 (15.5-19.3)	1,239	1,620	76.5 (74.3-78.5)
BSHC	99	745	13.3 (10.9-15.9)	325	745	43.6 (40.0-47.3)
BSA Total	2,760	20,960	13.2 (12.7-13.6)	9,547	20,960	45.5 (44.9-46.2)
Pacific						
BSWN	242	1,265	19.1 (17.0-21.4)	819	1,265	64.7 (62.0-67.4)
BSCM	428	2,790	15.3 (14.0-16.7)	1,364	2,790	48.9 (47.0-50.8)
BSAL	212	1,730	12.3 (10.7-13.9)	881	1,730	50.9 (48.5-53.3)
BSM	47	360	13.1 (9.8-17.0)	123	360	34.2 (29.3-39.3)
BSCtoC	38	325	11.7 (8.4-15.7)	146	325	44.9 (39.4-50.5)
BSC	174	1,040	16.7 (14.5-19.1)	449	1,040	43.2 (40.1-46.2)
BSSL	40	340	11.8 (8.5-15.7)	231	340	67.9 (62.7-72.9)
BSHC	9	70	12.9 (6.1-23.0)	50	70	71.4 (59.4-81.6)
BSA Total	1,190	7,920	15.0 (14.2-15.8)	4,063	7,920	51.3 (50.2-52.4)
Other						
BSWN	3,989	22,460	17.8 (17.3-18.3)	14,178	22,460	63.1 (62.5-63.8)
BSCM	2,140	11,660	18.4 (17.7-19.1)	6,432	11,660	55.2 (54.3-56.1)
BSAL	1,655	14,200	11.7 (11.1-12.2)	6,697	14,200	47.2 (46.3-48.0)
BSM	2,984	19,190	15.5 (15.0-16.1)	10,145	19,190	52.9 (52.2-53.6)
BSCtoC	3,005	16,335	18.4 (17.8-19.0)	10,373	16,335	63.5 (62.8-64.2)
BSC	2,725	15,510	17.6 (17.0-18.2)	8,775	15,510	56.6 (55.8-57.4)
BSSL	4,763	25,640	18.6 (18.1-19.1)	22,299	25,640	87.0 (86.6-87.4)
BSHC	2,128	10,470	20.3 (19.6-21.1)	7,049	10,470	67.3 (66.4-68.2)
BSA Total	23,389	135,465	17.3 (17.1-17.5)	85,948	135,465	63.4 (63.2-63.7)

Poisson 95% confidence intervals presented

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

	6 months			2 years				
	Number of women screened	Eligible population	% (95%CI)	Number of women screened	Eligible population	% (95%CI)		
Maori								
BSWN	1,226	7,080	17.3 (16.4-18.2)	4,399	7,080	62.1 (61.0-63.3)	✕✕✕	*
BSCM	743	4,960	15.0 (14.0-16.0)	2,520	4,960	50.8 (49.4-52.2)	✕✕✕	*
BSAL	278	2,670	10.4 (9.3-11.6)	1,212	2,670	45.4 (43.5-47.3)	✕✕✕	*
BSM	1,594	11,670	13.7 (13.0-14.3)	5,108	11,670	43.8 (42.9-44.7)	✕✕✕	*
BSCtoC	1,105	8,665	12.8 (12.1-13.5)	4,382	8,665	50.6 (49.5-51.6)	✕✕✕	*
BSC	618	3,860	16.0 (14.9-17.2)	2,256	3,860	58.4 (56.9-60.0)	✕✕✕	*
BSSL	710	3,295	21.5 (20.2-23.0)	2,547	3,295	77.3 (75.8-78.7)	✓✓✓	*
BSHC	216	1,350	16.0 (14.1-18.1)	781	1,350	57.9 (55.2-60.5)	✕✕✕	*
BSA Total	6,490	43,550	14.9 (14.6-15.2)	23,205	43,550	53.3 (52.8-53.8)	✕✕✕	*
Pacific								
BSWN	528	2,745	19.2 (17.8-20.8)	1,911	2,745	69.6 (67.9-71.3)	✓	ns
BSCM	958	6,100	15.7 (14.8-16.6)	3,236	6,100	53.0 (51.8-54.3)	✕✕✕	*
BSAL	473	3,660	12.9 (11.9-14.1)	2,162	3,660	59.1 (57.5-60.7)	✕✕✕	*
BSM	168	790	21.3 (18.5-24.3)	419	790	53.0 (49.5-56.6)	✕✕✕	*
BSCtoC	78	620	12.6 (10.1-15.5)	330	620	53.2 (49.2-57.2)	✕✕✕	*
BSC	438	2,430	18.0 (16.5-19.6)	1,233	2,430	50.7 (48.7-52.7)	✕✕✕	*
BSSL	133	585	22.7 (19.4-26.3)	467	585	79.8 (76.3-83.0)	✓✓✓	*
BSHC	41	180	22.8 (16.9-29.6)	105	180	58.3 (50.8-65.6)	✕✕✕	*
BSA Total	2,817	17,110	16.5 (15.9-17.0)	9,863	17,110	57.6 (56.9-58.4)	✕✕✕	*
Other								
BSWN	11,896	65,760	18.1 (17.8-18.4)	42,248	65,760	64.2 (63.9-64.6)	✕✕	*
BSCM	5,295	34,000	15.6 (15.2-16.0)	19,153	34,000	56.3 (55.8-56.9)	✕✕✕	*
BSAL	4,558	35,700	12.8 (12.4-13.1)	18,907	35,700	53.0 (52.4-53.5)	✕✕✕	*
BSM	10,342	61,780	16.7 (16.4-17.0)	39,455	61,780	63.9 (63.5-64.2)	✕✕	*
BSCtoC	9,651	52,470	18.4 (18.1-18.7)	36,716	52,470	70.0 (69.6-70.4)	✓	ns
BSC	8,026	42,590	18.8 (18.5-19.2)	29,590	42,590	69.5 (69.0-69.9)	✓	*
BSSL	16,757	79,200	21.2 (20.9-21.4)	63,819	79,200	80.6 (80.3-80.9)	✓✓✓	*
BSHC	6,425	31,510	20.4 (19.9-20.8)	23,527	31,510	74.7 (74.2-75.1)	✓✓	*
BSA Total	72,950	403,010	18.1 (18.0-18.2)	273,415	403,010	67.8 (67.7-68.0)	✓	*

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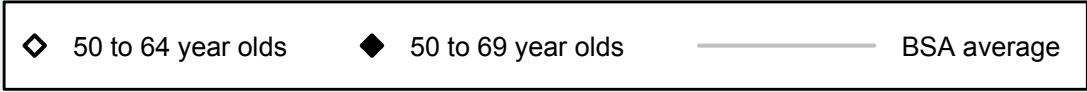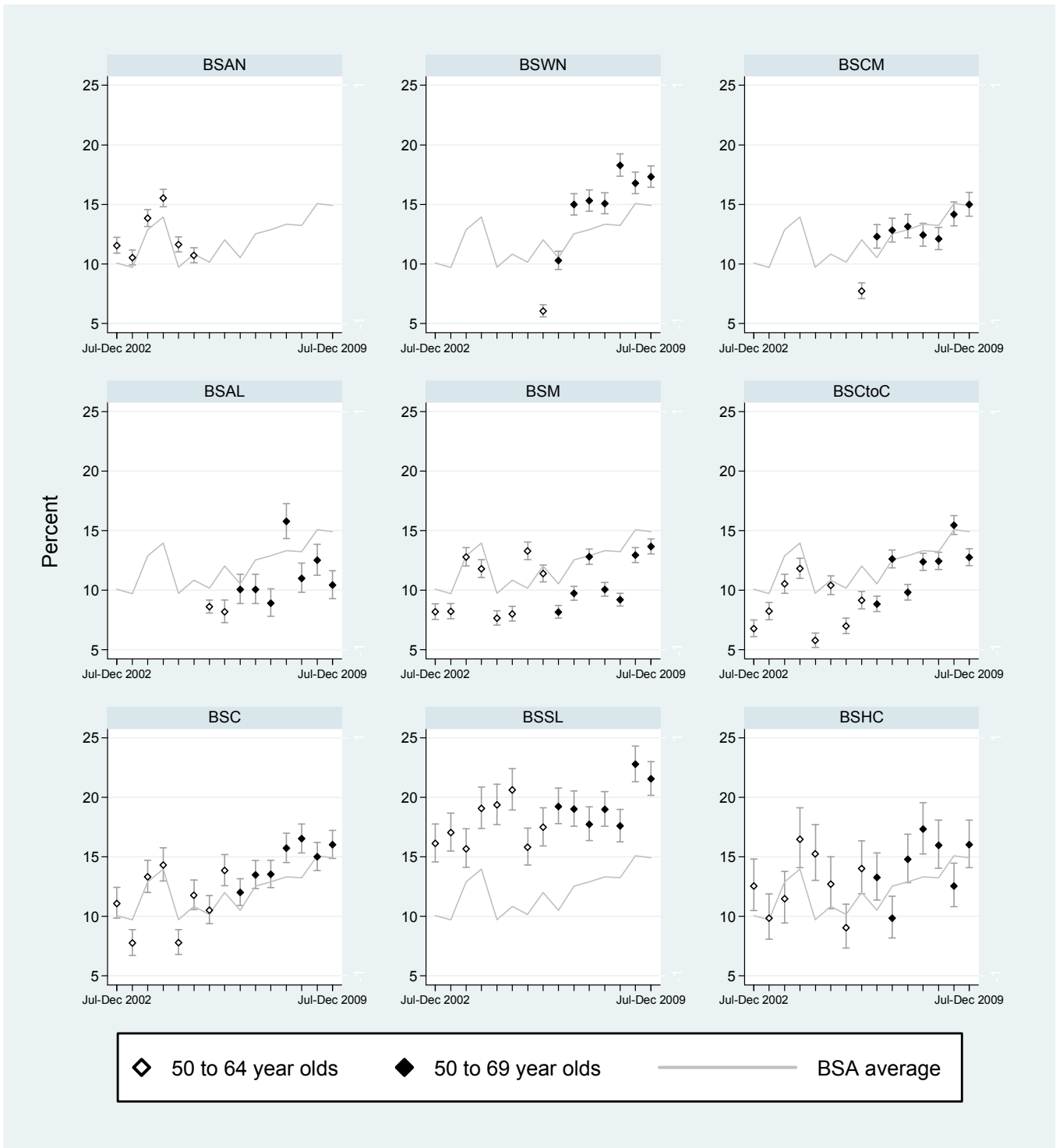✓✓ Difference of ≥ 5-9% magnitude better than target value and statistically significant
✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant
xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant
xxx Difference of ≥ 10% magnitude worse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

Figure 1a7.1: Trends in 6 month coverage for Maori

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

BSA Screening and Assessment Report - Women screened January 2008-December 2009
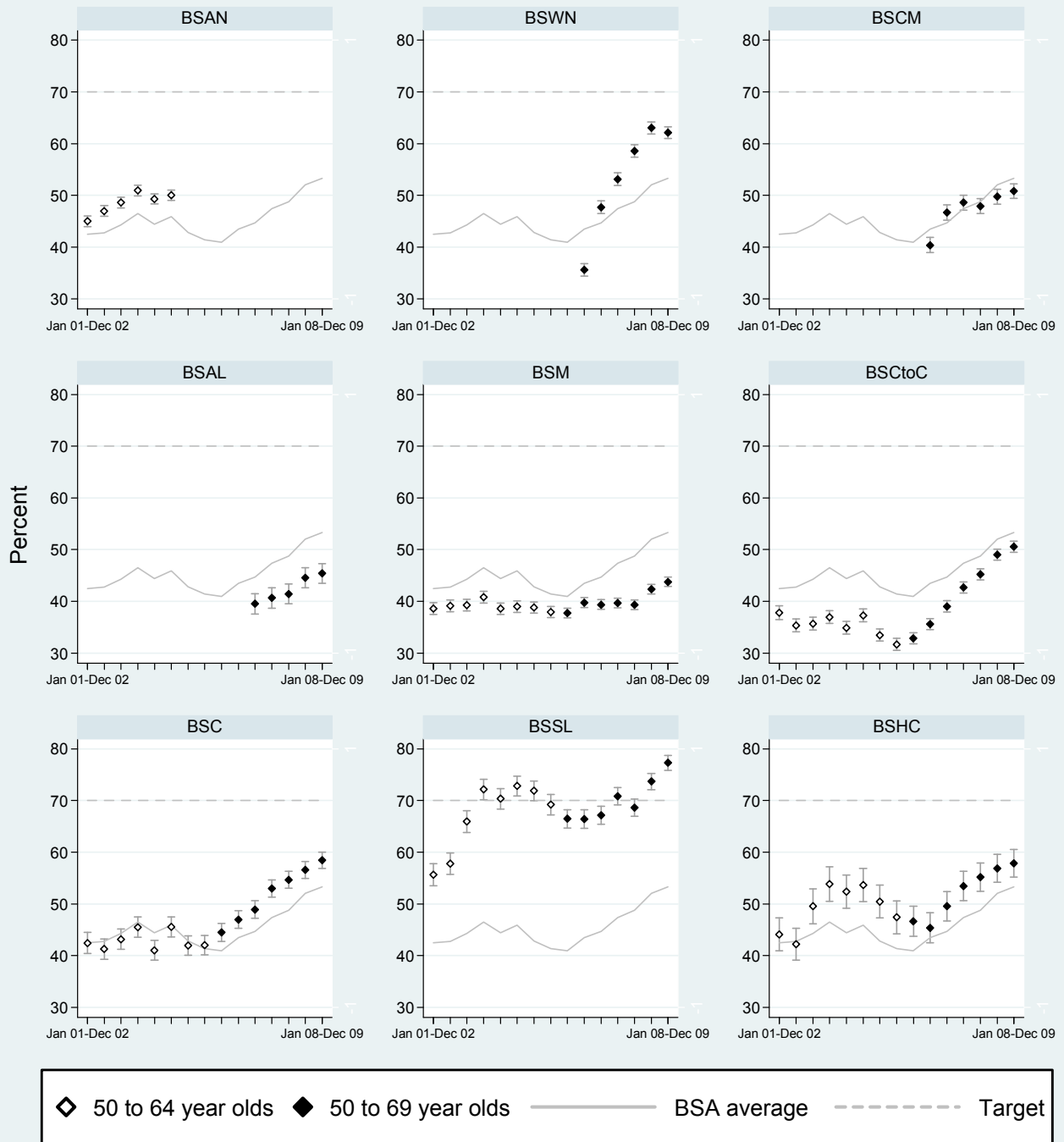
Figure 1a7.1: Trends in 6 month coverage for Pacific
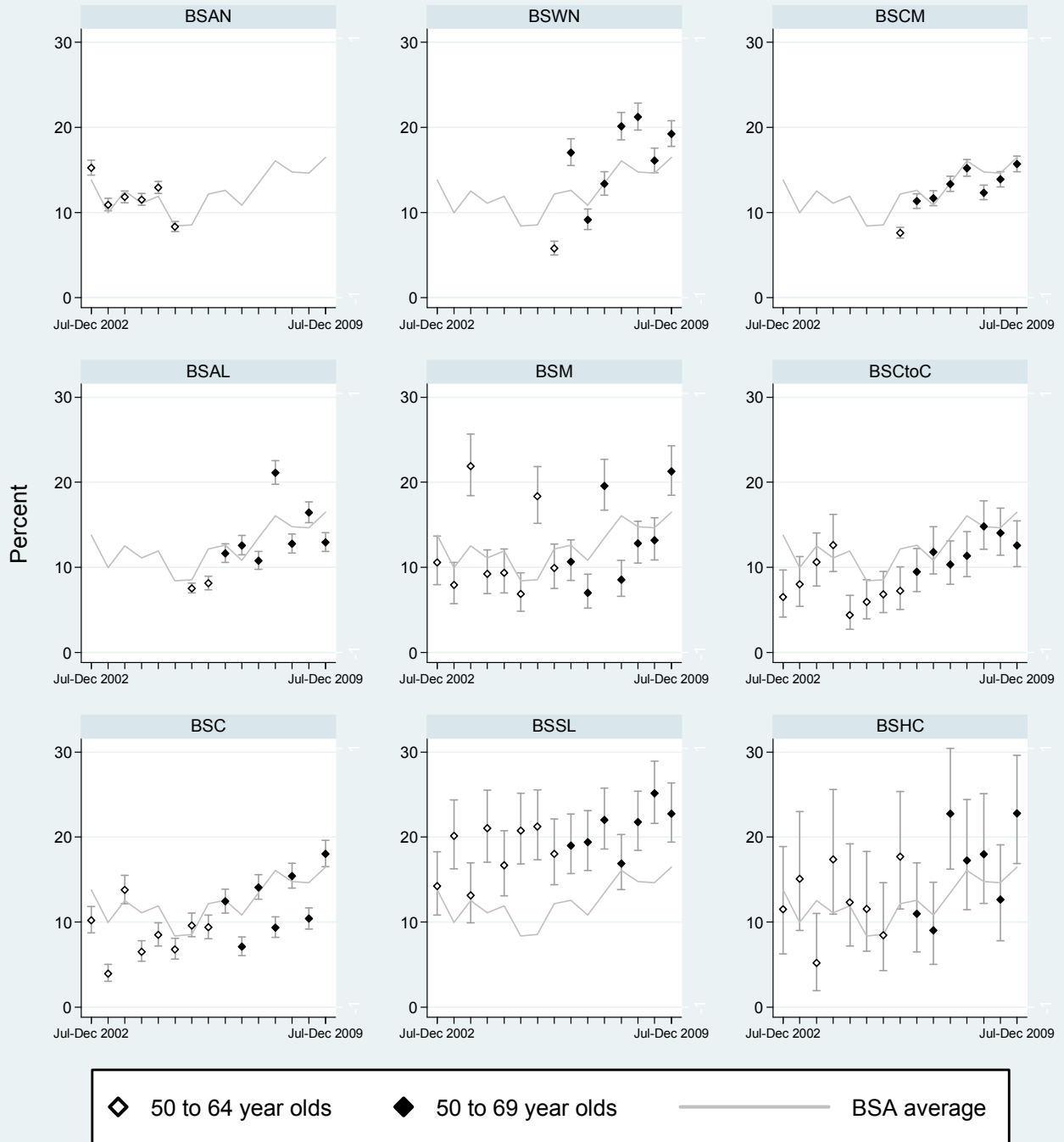
Figure 1a7.1: Trends in biennial coverage for Pacific
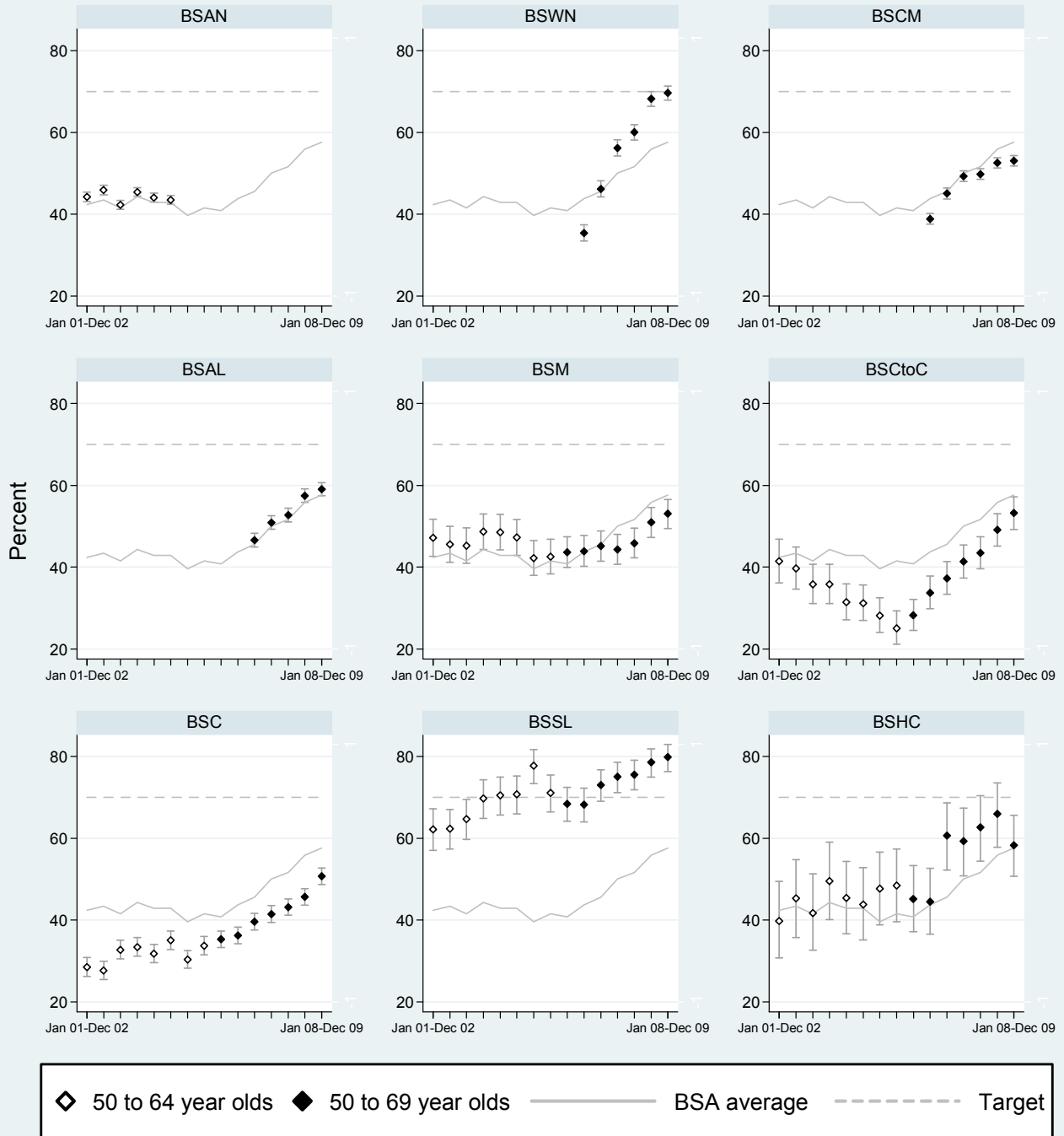
Figure 1a7.1: Trends in 6 month coverage for other ethnic groups
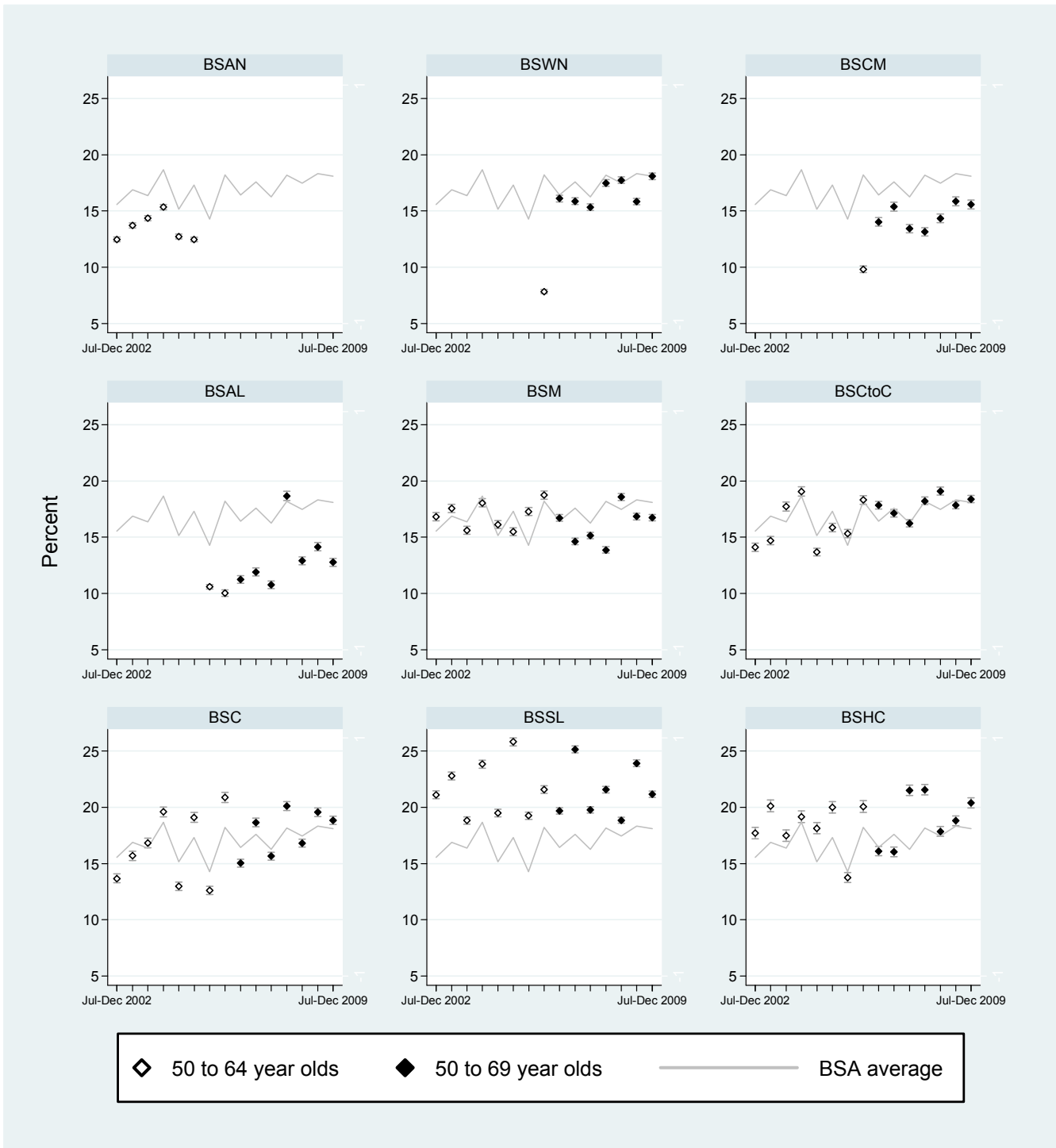
Figure 1a7.1: Trends in biennial coverage for other ethnic groups
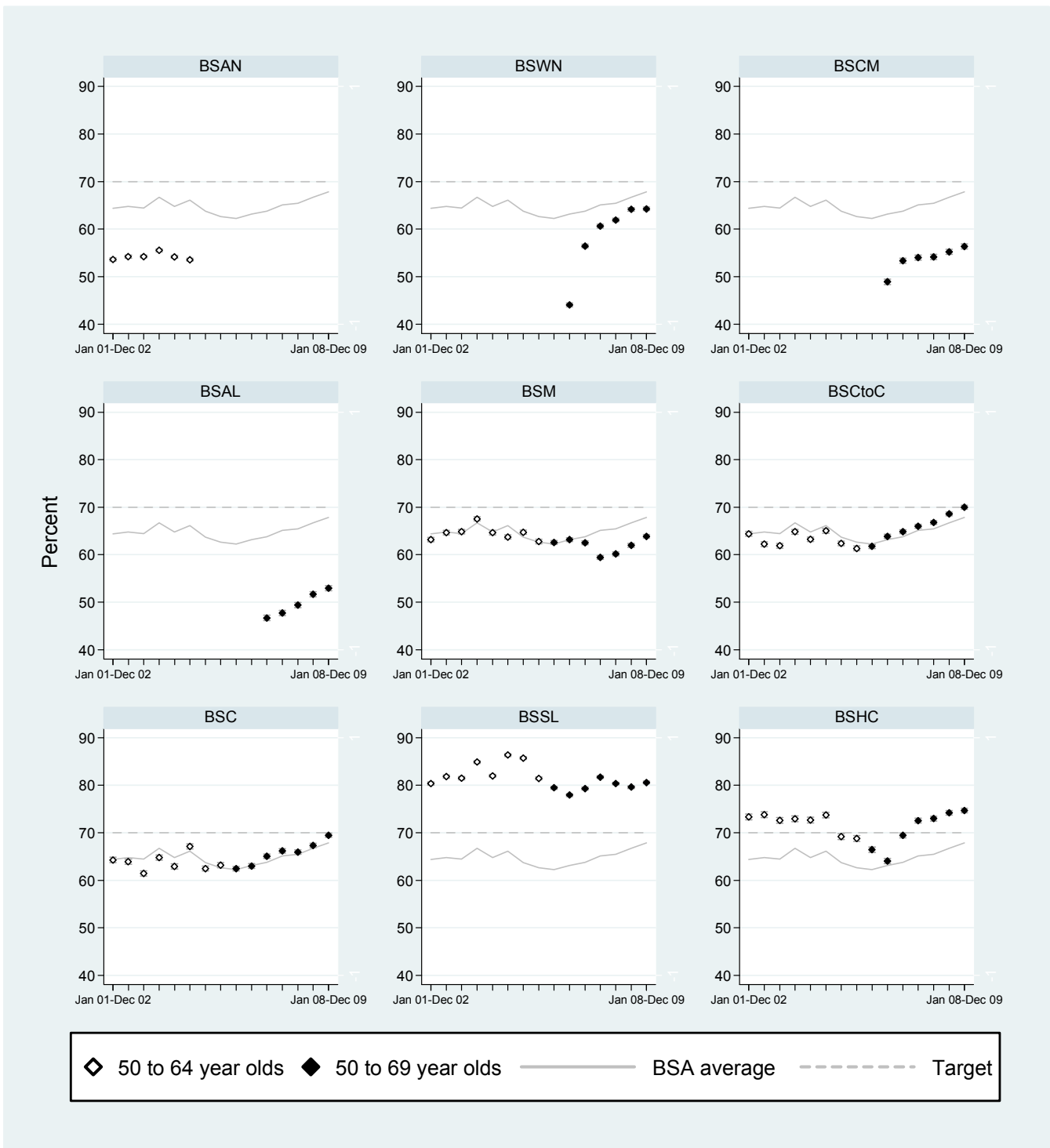
1.b. Routine re-screening

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 months	Women eligible for re-screen	% (95%CI)		
45-49 years								
BSWN	2,004	3,607	55.6 (53.9-57.2)	5,249	9,859	53.2 (52.2-54.2)		
BSCM	1,041	2,239	46.5 (44.4-48.6)	2,072	4,817	43.0 (41.6-44.4)		
BSAL								
BSM	1,322	2,973	44.5 (42.7-46.3)	4,102	9,893	41.5 (40.5-42.4)		
BSCtoC	1,631	3,003	54.3 (52.5-56.1)	4,447	8,197	54.3 (53.2-55.3)		
BSC	1,141	2,317	49.2 (47.2-51.3)	3,621	6,779	53.4 (52.2-54.6)		
BSSL	2,574	4,790	53.7 (52.3-55.2)	11,943	21,045	56.7 (56.1-57.4)		
BSHC	582	1,420	41.0 (38.4-43.6)	2,190	4,539	48.2 (46.8-49.7)		
BSA Total	10,295	20,349	50.6 (49.9-51.3)	33,624	65,129	51.6 (51.2-52.0)		
50-69 years								
BSWN	6,737	7,788	86.5 (85.7-87.3)	22,011	25,556	86.1 (85.7-86.6)	✓	*
BSCM	3,387	4,447	76.2 (74.9-77.4)	11,631	15,451	75.3 (74.6-76.0)	✗✗✗	*
BSAL								
BSM	6,207	7,498	82.8 (81.9-83.6)	20,795	28,350	73.4 (72.8-73.9)	✗✗✗	*
BSCtoC	6,854	7,464	91.8 (91.2-92.4)	22,966	25,471	90.2 (89.8-90.5)	✓✓	*
BSC	4,965	5,495	90.4 (89.5-91.1)	18,901	21,263	88.9 (88.5-89.3)	✓	*
BSSL	13,574	14,615	92.9 (92.4-93.3)	41,063	44,939	91.4 (91.1-91.6)	✓✓	*
BSHC	4,320	4,729	91.4 (90.5-92.1)	13,766	15,195	90.6 (90.1-91.1)	✓✓	*
BSA Total	46,044	52,036	88.5 (88.2-88.8)	151,133	176,225	85.8 (85.6-85.9)	✓	*

Note: Denominator for re-screens indexed according to original screening provider. Data for BSAL in the table above have been excluded because there is a known data issue that is being investigated.
* 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

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

	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	1,522	2,004	75.9 (74.0-77.8)	4,199	5,249	80.0 (78.9-81.1)		
BSCM	787	1,041	75.6 (72.9-78.2)	1,569	2,072	75.7 (73.8-77.6)		
BSAL								
BSM	780	1,322	59.0 (56.3-61.7)	2,171	4,102	52.9 (51.4-54.5)		
BSCtoC	1,357	1,631	83.2 (81.3-85.0)	3,414	4,447	76.8 (75.5-78.0)		
BSC	996	1,141	87.3 (85.2-89.2)	3,146	3,621	86.9 (85.7-88.0)		
BSSL	2,204	2,574	85.6 (84.2-87.0)	10,794	11,943	90.4 (89.8-90.9)		
BSHC	462	582	79.4 (75.9-82.6)	1,678	2,190	76.6 (74.8-78.4)		
BSA Total	8,108	10,295	78.8 (78.0-79.5)	26,971	33,624	80.2 (79.8-80.6)		
50-69 years								
BSWN	5,320	6,737	79.0 (78.0-79.9)	18,197	22,011	82.7 (82.2-83.2)	✓✓✓	*
BSCM	2,480	3,387	73.2 (71.7-74.7)	9,204	11,631	79.1 (78.4-79.9)	✓✓	*
BSAL								
BSM	3,197	6,207	51.5 (50.3-52.8)	10,844	20,795	52.1 (51.5-52.8)	✗✗✗	*
BSCtoC	6,056	6,854	88.4 (87.6-89.1)	18,175	22,966	79.1 (78.6-79.7)	✓✓	*
BSC	4,342	4,965	87.5 (86.5-88.4)	16,481	18,901	87.2 (86.7-87.7)	✓✓✓	*
BSSL	11,877	13,574	87.5 (86.9-88.1)	37,191	41,063	90.6 (90.3-90.9)	✓✓✓	*
BSHC	3,858	4,320	89.3 (88.3-90.2)	11,509	13,766	83.6 (83.0-84.2)	✓✓✓	*
BSA Total	37,130	46,044	80.6 (80.3-81.0)	121,601	151,133	80.5 (80.3-80.7)	✓✓	*

Note: Denominator for re-screens indexed according to original screening provider. Data for BSAL in the table above have been excluded because there is a known data issue that is being investigated.

* 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

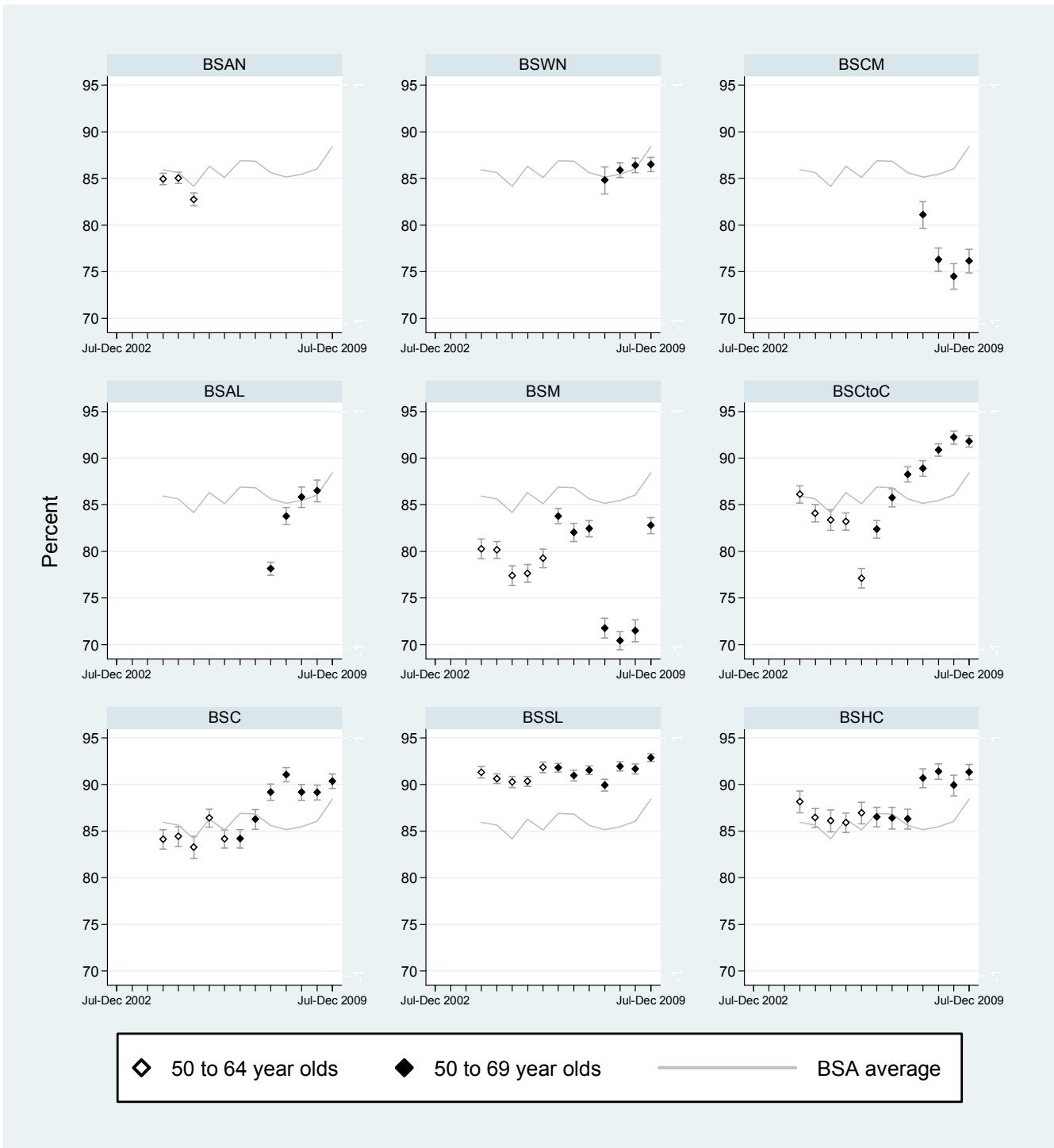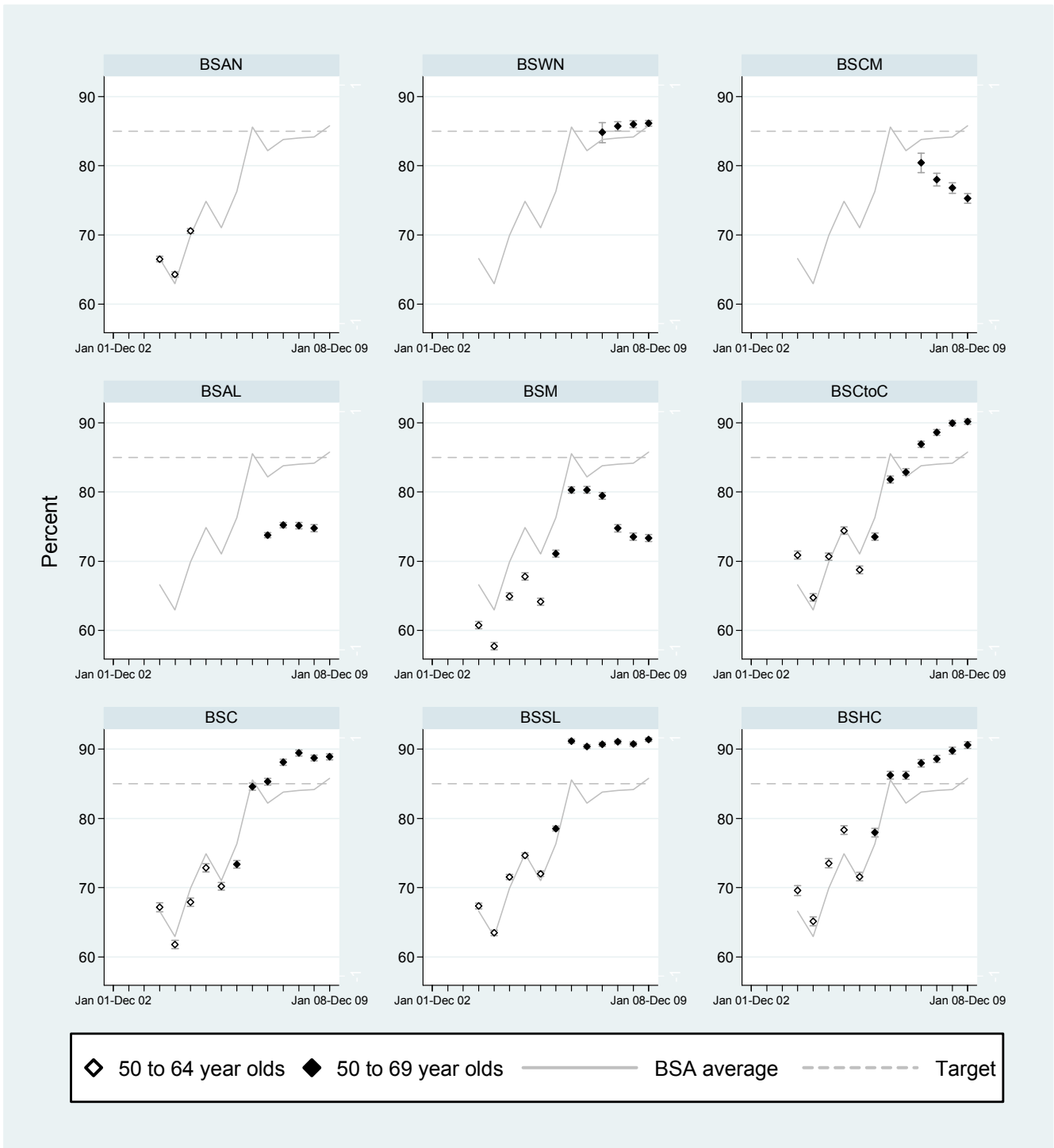xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant

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

Figure 1b.1: Trends in re-screen rates (within 27 months), 6 months

Figure 1b.1: Trends in re-screen rates (within 27 months), 2 years

Legend: ◇ 50 to 64 year olds ◆ 50 to 69 year olds ─── BSA average ----- Target

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			Mobile site		
	Women having ≤ 4 films	Women screened	% (95%CI)	Women having ≤ 4 films	Women screened	% (95%CI)
45-49 years						
BSWN	3,875	4,338	89.3 (88.4-90.2)	457	497	92.0 (89.2-94.2)
BSCM	1,598	1,963	81.4 (79.6-83.1)	799	920	86.8 (84.5-89.0)
BSAL	1,441	1,729	83.3 (81.5-85.1)	220	283	77.7 (72.4-82.4)
BSM	2,017	2,204	91.5 (90.3-92.6)	1,157	1,399	82.7 (80.6-84.6)
BSCtoC	2,817	3,104	90.8 (89.7-91.8)	395	462	85.5 (82.0-88.6)
BSC	2,288	2,671	85.7 (84.3-87.0)	472	548	86.1 (83.0-88.9)
BSSL	4,008	4,425	90.6 (89.7-91.4)	607	681	89.1 (86.6-91.4)
BSHC	1,158	1,494	77.5 (75.3-79.6)	681	762	89.4 (87.0-91.5)
BSA Total	19,202	21,928	87.6 (87.1-88.0)	4,788	5,552	86.2 (85.3-87.1)
50-69 years						
BSWN	10,461	11,938	87.6 (87.0-88.2)	1,569	1,754	89.5 (87.9-90.9)
BSCM	3,935	4,815	81.7 (80.6-82.8)	1,917	2,182	87.9 (86.4-89.2)
BSAL	3,841	4,611	83.3 (82.2-84.4)	541	704	76.8 (73.6-79.9)
BSM	6,813	7,487	91.0 (90.3-91.6)	3,801	4,644	81.8 (80.7-82.9)
BSCtoC	8,828	9,689	91.1 (90.5-91.7)	984	1,181	83.3 (81.1-85.4)
BSC	6,349	7,301	87.0 (86.2-87.7)	1,561	1,808	86.3 (84.7-87.9)
BSSL	13,997	15,447	90.6 (90.1-91.1)	1,943	2,188	88.8 (87.4-90.1)
BSHC	3,329	4,588	72.6 (71.2-73.8)	1,861	2,123	87.7 (86.2-89.0)
BSA Total	57,553	65,876	87.4 (87.1-87.6)	14,177	16,584	85.5 (84.9-86.0)

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

	Fixed site					Mobile site				
	Women having ≤ 4 films	Women screened	% (95%CI)			Women having ≤ 4 films	Women screened	% (95%CI)		
45-49 years										
BSWN	13,362	14,924	89.5 (89.0-90.0)			1,850	2,097	88.2 (86.8-89.6)		
BSCM	5,100	6,095	83.7 (82.7-84.6)			2,355	2,680	87.9 (86.6-89.1)		
BSAL	6,329	6,986	90.6 (89.9-91.3)			995	1,201	82.8 (80.6-84.9)		
BSM	7,685	8,316	92.4 (91.8-93.0)			3,245	3,818	85.0 (83.8-86.1)		
BSCtoC	9,772	10,612	92.1 (91.6-92.6)			1,450	1,717	84.4 (82.6-86.1)		
BSC	7,549	8,405	89.8 (89.1-90.5)			1,604	1,819	88.2 (86.6-89.6)		
BSSL	19,809	21,285	93.1 (92.7-93.4)			2,294	2,576	89.1 (87.8-90.2)		
BSHC	3,966	4,838	82.0 (80.9-83.0)			2,340	2,643	88.5 (87.3-89.7)		
BSA Total	73,572	81,461	90.3 (90.1-90.5)			16,133	18,551	87.0 (86.5-87.4)		
50-69 years										
BSWN	37,988	42,587	89.2 (88.9-89.5)	✓✓✓	*	5,592	6,087	91.9 (91.2-92.5)	✓✓✓	*
BSCM	15,212	17,726	85.8 (85.3-86.3)	✓✓	*	6,183	7,184	86.1 (85.2-86.9)	✓✓	*
BSAL	17,738	19,132	92.7 (92.3-93.1)	✓✓✓	*	2,719	3,330	81.7 (80.3-83.0)	✓	*
BSM	28,023	30,104	93.1 (92.8-93.4)	✓✓✓	*	12,534	14,965	83.8 (83.2-84.3)	✓	*
BSCtoC	33,231	35,741	93.0 (92.7-93.2)	✓✓✓	*	4,723	5,795	81.5 (80.5-82.5)	✓	*
BSC	23,762	25,357	93.7 (93.4-94.0)	✓✓✓	*	6,796	7,829	86.8 (86.0-87.5)	✓✓	*
BSSL	56,103	59,898	93.7 (93.5-93.9)	✓✓✓	*	6,332	7,123	88.9 (88.1-89.6)	✓✓✓	*
BSHC	12,416	16,029	77.5 (76.8-78.1)	✓	*	7,497	8,483	88.4 (87.7-89.1)	✓✓✓	*
BSA Total	224,473	246,574	91.0 (90.9-91.1)	✓✓✓	*	52,376	60,796	86.2 (85.9-86.4)	✓✓	*

* 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

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%

Table 2.b.1: Women having technical recall as a percentage of Women screened, 6 Months

	Fixed site				Mobile site		
	Women having technical recall	Women screened	% (95%CI)		Women having technical recall	Women screened	% (95%CI)
45-49 years							
BSWN	2	4,338	0.0 (0.0-0.2)		11	497	2.2 (1.1-4.0)
BSCM	2	1,963	0.1 (0.0-0.4)		22	920	2.4 (1.5-3.6)
BSAL	9	1,729	0.5 (0.2-1.0)		4	283	1.4 (0.4-3.6)
BSM	27	2,204	1.2 (0.8-1.8)		86	1,399	6.1 (4.9-7.6)
BSCtoC	5	3,104	0.2 (0.1-0.4)		20	462	4.3 (2.6-6.7)
BSC	23	2,671	0.9 (0.5-1.3)		33	548	6.0 (4.1-8.5)
BSSL	8	4,425	0.2 (0.1-0.4)		13	681	1.9 (1.0-3.3)
BSHC	1	1,494	0.1 (0.0-0.4)		32	762	4.2 (2.9-5.9)
BSA Total	77	21,928	0.4 (0.3-0.4)		221	5,552	4.0 (3.5-4.5)
50-69 years							
BSWN	4	11,938	0.0 (0.0-0.1)		36	1,754	2.1 (1.4-2.8)
BSCM	3	4,815	0.1 (0.0-0.2)		37	2,182	1.7 (1.2-2.3)
BSAL	8	4,611	0.2 (0.1-0.3)		35	704	5.0 (3.5-6.9)
BSM	63	7,487	0.8 (0.6-1.1)		255	4,644	5.5 (4.8-6.2)
BSCtoC	16	9,689	0.2 (0.1-0.3)		51	1,181	4.3 (3.2-5.7)
BSC	33	7,301	0.5 (0.3-0.6)		92	1,808	5.1 (4.1-6.2)
BSSL	24	15,447	0.2 (0.1-0.2)		46	2,188	2.1 (1.5-2.8)
BSHC	5	4,588	0.1 (0.0-0.3)		79	2,123	3.7 (2.9-4.6)
BSA Total	156	65,876	0.2 (0.2-0.3)		631	16,584	3.8 (3.5-4.1)

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%

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

	Fixed site					Mobile site				
	Women having technical recall	Women screened	% (95%CI)			Women having technical recall	Women screened	% (95%CI)		
45-49 years										
BSWN	8	14,924	0.1 (0.0-0.1)			64	2,097	3.1 (2.4-3.9)		
BSCM	7	6,095	0.1 (0.0-0.2)			67	2,680	2.5 (1.9-3.2)		
BSAL	34	6,986	0.5 (0.3-0.7)			40	1,201	3.3 (2.4-4.5)		
BSM	50	8,316	0.6 (0.4-0.8)			198	3,818	5.2 (4.5-6.0)		
BSCtoC	23	10,612	0.2 (0.1-0.3)			68	1,717	4.0 (3.1-5.0)		
BSC	99	8,405	1.2 (1.0-1.4)			90	1,819	4.9 (4.0-6.1)		
BSSL	55	21,285	0.3 (0.2-0.3)			53	2,576	2.1 (1.5-2.7)		
BSHC	13	4,838	0.3 (0.1-0.5)			115	2,643	4.4 (3.6-5.2)		
BSA Total	289	81,461	0.4 (0.3-0.4)			695	18,551	3.7 (3.5-4.0)		
50-69 years										
BSWN	9	42,587	0.0 (0.0-0.0)	✓✓✓	*	223	6,087	3.7 (3.2-4.2)	×××	*
BSCM	11	17,726	0.1 (0.0-0.1)	✓✓✓	*	196	7,184	2.7 (2.4-3.1)	✓	ns
BSAL	69	19,132	0.4 (0.3-0.5)	✓✓✓	*	133	3,330	4.0 (3.3-4.7)	×××	*
BSM	152	30,104	0.5 (0.4-0.6)	✓	ns	758	14,965	5.1 (4.7-5.4)	×××	*
BSCtoC	81	35,741	0.2 (0.2-0.3)	✓✓✓	*	206	5,795	3.6 (3.1-4.1)	×××	*
BSC	192	25,357	0.8 (0.7-0.9)	×××	*	363	7,829	4.6 (4.2-5.1)	×××	*
BSSL	79	59,898	0.1 (0.1-0.2)	✓✓✓	*	121	7,123	1.7 (1.4-2.0)	✓✓✓	*
BSHC	31	16,029	0.2 (0.1-0.3)	✓✓✓	*	388	8,483	4.6 (4.1-5.1)	×××	*
BSA Total	624	246,574	0.3 (0.2-0.3)	✓✓✓	*	2,388	60,796	3.9 (3.8-4.1)	×××	*

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
xxx Difference of ≥ 10% 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
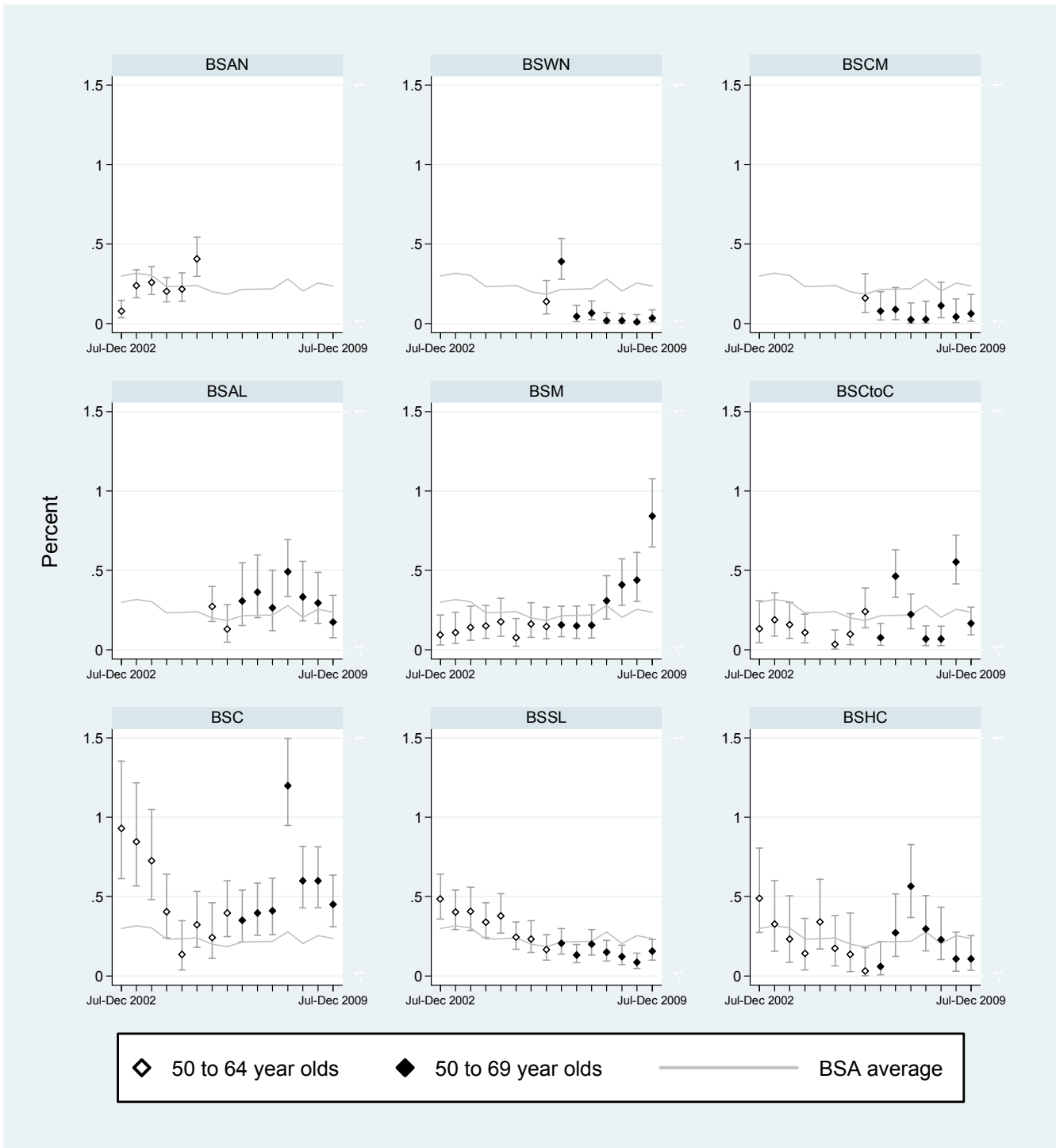
Figure 2b1: Technical recall rates for fixed sites, women aged 50-69 years, fixed sites, 2 years
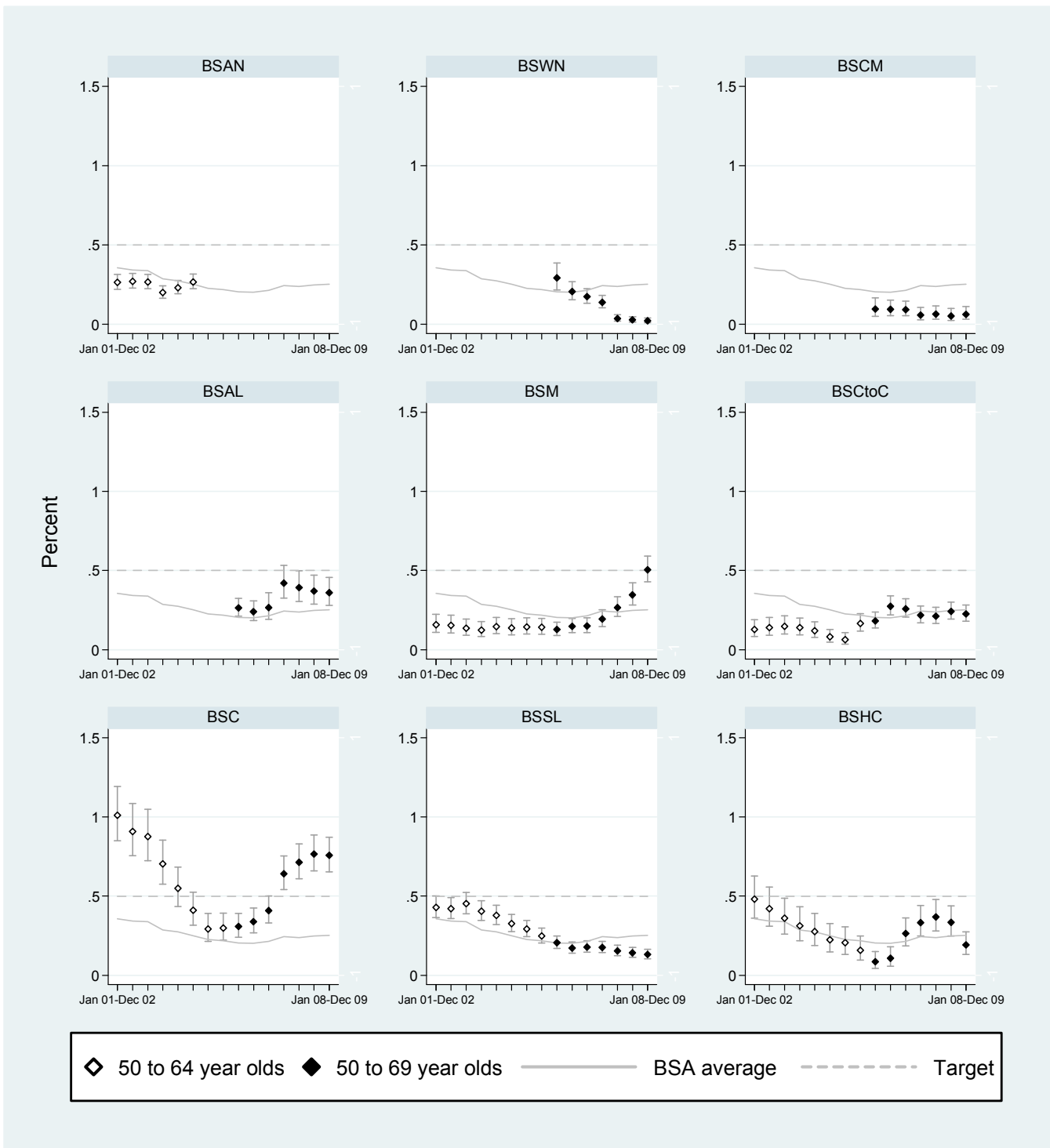
Figure 2b.2: Technical recall rates for mobile sites, women aged 50-69 years, 6 months
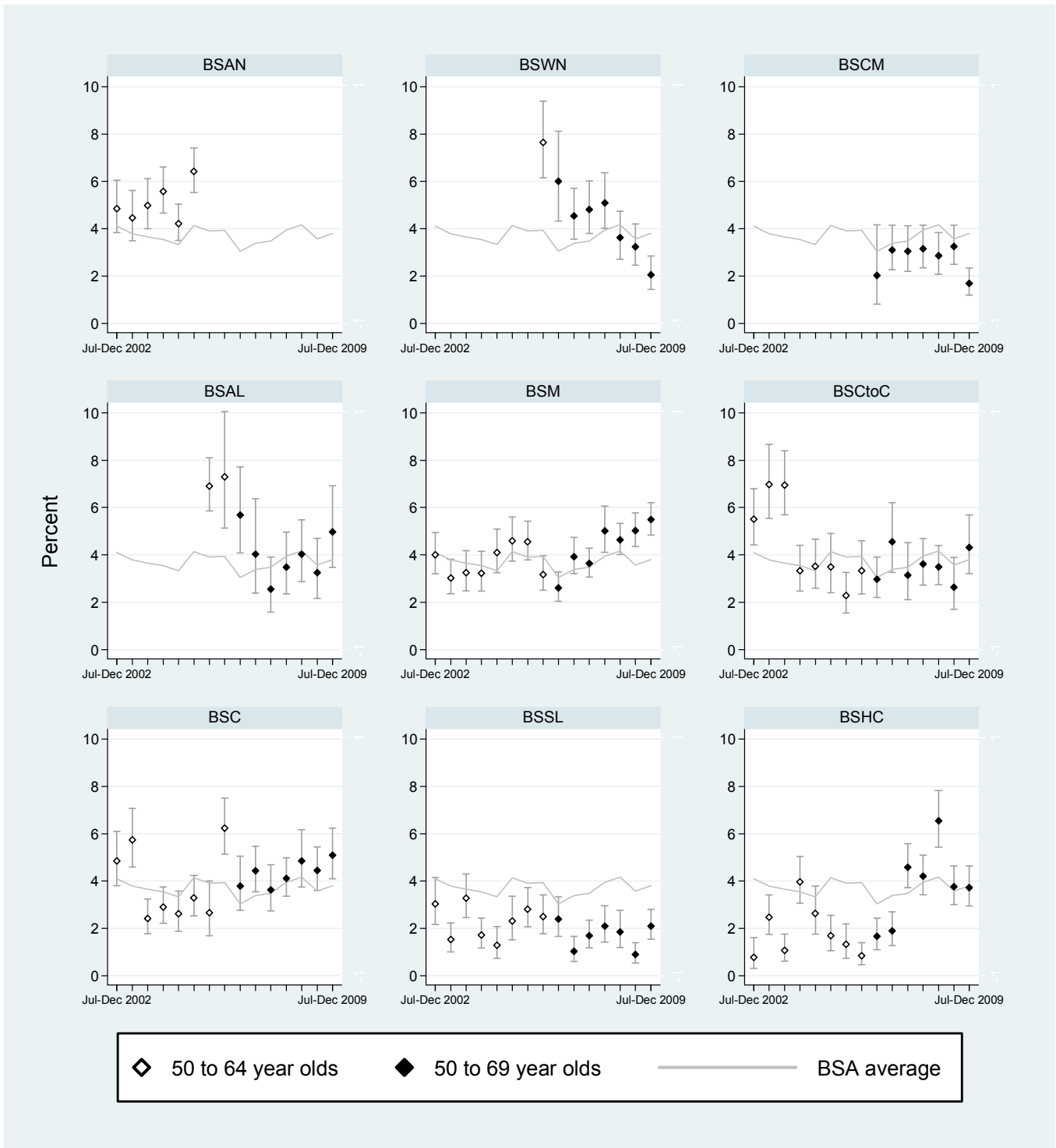
Figure 2b.2: Technical recall rates for mobile sites, women aged 50-69 years, 2 years

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

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

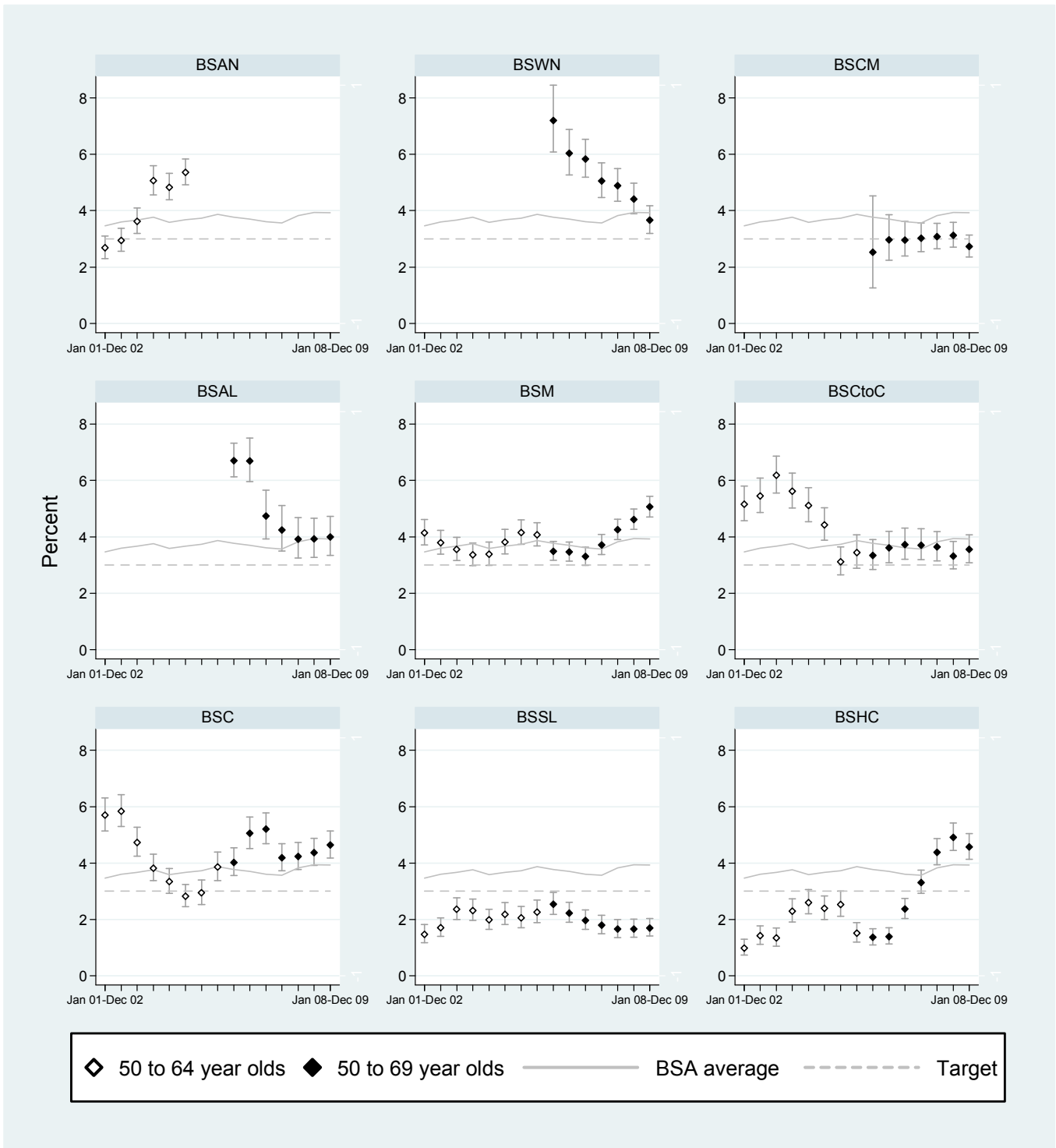|	Fixed site				Mobile site		
	Films rejected	Total films taken	% (95%CI)		Films rejected	Total films taken	% (95%CI)
45-49 years							
BSWN	151	18,181	0.8 (0.7-1.0)		18	2,042	0.9 (0.5-1.4)
BSCM	124	8,472	1.5 (1.2-1.7)		28	3,890	0.7 (0.5-1.0)
BSAL	90	7,447	1.2 (1.0-1.5)		0	1,241	0.0 (0.0-0.3)
BSM	78	9,138	0.9 (0.7-1.1)		72	6,017	1.2 (0.9-1.5)
BSCtoC	87	12,861	0.7 (0.5-0.8)		21	1,963	1.1 (0.7-1.6)
BSC	96	11,279	0.9 (0.7-1.0)		4	2,311	0.2 (0.0-0.4)
BSSL	138	18,365	0.8 (0.6-0.9)		17	2,858	0.6 (0.3-1.0)
BSHC	87	6,531	1.3 (1.1-1.6)		17	3,186	0.5 (0.3-0.9)
BSA Total	851	92,274	0.9 (0.9-1.0)		177	23,508	0.8 (0.6-0.9)
50-69 years							
BSWN	430	50,005	0.9 (0.8-0.9)		71	7,289	1.0 (0.8-1.2)
BSCM	295	20,661	1.4 (1.3-1.6)		28	9,168	0.3 (0.2-0.4)
BSAL	168	19,719	0.9 (0.7-1.0)		4	3,110	0.1 (0.0-0.3)
BSM	283	31,019	0.9 (0.8-1.0)		242	19,949	1.2 (1.1-1.4)
BSCtoC	291	39,923	0.7 (0.6-0.8)		45	5,050	0.9 (0.6-1.2)
BSC	257	30,573	0.8 (0.7-0.9)		12	7,619	0.2 (0.1-0.3)
BSSL	440	63,842	0.7 (0.6-0.8)		57	9,132	0.6 (0.5-0.8)
BSHC	337	20,274	1.7 (1.5-1.8)		44	8,922	0.5 (0.4-0.7)
BSA Total	2,501	276,016	0.9 (0.9-0.9)		503	70,239	0.7 (0.7-0.8)

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

Table 2c.2: Rejected films as a percentage of total films taken, 2 years

	Fixed site					Mobile site				
	Films rejected	Total films taken	% (95%CI)			Films rejected	Total films taken	% (95%CI)		
45-49 years										
BSWN	508	64,218	0.8 (0.7-0.9)			122	9,061	1.3 (1.1-1.6)		
BSCM	407	26,409	1.5 (1.4-1.7)			67	11,528	0.6 (0.5-0.7)		
BSAL	214	30,360	0.7 (0.6-0.8)			2	5,337	0.0 (0.0-0.1)		
BSM	305	34,596	0.9 (0.8-1.0)			128	16,239	0.8 (0.7-0.9)		
BSCtoC	393	44,667	0.9 (0.8-1.0)			58	7,357	0.8 (0.6-1.0)		
BSC	405	36,722	1.1 (1.0-1.2)			11	7,598	0.1 (0.1-0.3)		
BSSL	751	91,234	0.8 (0.8-0.9)			73	10,788	0.7 (0.5-0.9)		
BSHC	278	21,911	1.3 (1.1-1.4)			69	11,149	0.6 (0.5-0.8)		
BSA Total	3,261	350,117	0.9 (0.9-1.0)			530	79,057	0.7 (0.6-0.7)		
50-69 years										
BSWN	1,590	186,439	0.9 (0.8-0.9)	✓✓✓	*	385	27,443	1.4 (1.3-1.6)	✓✓✓	*
BSCM	1,045	76,398	1.4 (1.3-1.5)	✓✓✓	*	146	31,197	0.5 (0.4-0.6)	✓✓✓	*
BSAL	687	86,286	0.8 (0.7-0.9)	✓✓✓	*	27	14,938	0.2 (0.1-0.3)	✓✓✓	*
BSM	1,023	125,574	0.8 (0.8-0.9)	✓✓✓	*	525	63,931	0.8 (0.8-0.9)	✓✓✓	*
BSCtoC	1,315	152,772	0.9 (0.8-0.9)	✓✓✓	*	172	25,050	0.7 (0.6-0.8)	✓✓✓	*
BSC	1,225	114,416	1.1 (1.0-1.1)	✓✓✓	*	68	32,856	0.2 (0.2-0.3)	✓✓✓	*
BSSL	1,897	255,826	0.7 (0.7-0.8)	✓✓✓	*	147	29,759	0.5 (0.4-0.6)	✓✓✓	*
BSHC	1,069	72,843	1.5 (1.4-1.6)	✓✓✓	*	247	36,793	0.7 (0.6-0.8)	✓✓✓	*
BSA Total	9,851	1,070,554	0.9 (0.9-0.9)	✓✓✓	*	1,717	261,967	0.7 (0.6-0.7)	✓✓✓	*

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
xxx Difference of ≥ 10% 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

Table 2d.1: Referral to assessment as a percentage of women screened, 6 months

	Initial				Subsequent		
	Referral to assessment	Women screened	% (95%CI)		Referral to assessment	Women screened	% (95%CI)
45-49 years							
BSWN	252	2,474	10.2 (9.0-11.5)		100	2,361	4.2 (3.4-5.2)
BSCM	181	1,681	10.8 (9.3-12.5)		51	1,202	4.2 (3.2-5.6)
BSAL	107	1,213	8.8 (7.2-10.7)		36	799	4.5 (3.2-6.2)
BSM	213	2,167	9.8 (8.6-11.2)		71	1,436	4.9 (3.9-6.2)
BSCtoC	111	1,901	5.8 (4.8-7.0)		46	1,665	2.8 (2.0-3.7)
BSC	191	1,840	10.4 (9.0-12.0)		79	1,379	5.7 (4.5-7.1)
BSSL	162	2,338	6.9 (5.9-8.1)		90	2,768	3.3 (2.6-4.0)
BSHC	82	934	8.8 (7.0-10.9)		35	1,322	2.6 (1.8-3.7)
BSA Total	1,299	14,548	8.9 (8.5-9.4)		508	12,932	3.9 (3.6-4.3)
50-69 years							
BSWN	144	1,633	8.8 (7.4-10.4)		378	12,059	3.1 (2.8-3.5)
BSCM	126	1,217	10.4 (8.6-12.3)		179	5,780	3.1 (2.7-3.6)
BSAL	109	957	11.4 (9.4-13.7)		123	4,358	2.8 (2.3-3.4)
BSM	138	1,436	9.6 (8.1-11.4)		381	10,695	3.6 (3.2-3.9)
BSCtoC	80	1,199	6.7 (5.3-8.3)		165	9,671	1.7 (1.5-2.0)
BSC	117	1,092	10.7 (8.9-12.8)		302	8,017	3.8 (3.4-4.2)
BSSL	40	684	5.8 (4.2-8.0)		426	16,951	2.5 (2.3-2.8)
BSHC	32	377	8.5 (5.8-12.0)		142	6,334	2.2 (1.9-2.6)
BSA Total	786	8,595	9.1 (8.5-9.8)		2096	73,865	2.8 (2.7-3.0)

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

	Initial					Subsequent				
	Referral to assessment	Women screened	% (95%CI)			Referral to assessment	Women screened	% (95%CI)		
45-49 years										
BSWN	1,034	10,111	10.2 (9.6-10.9)			280	6,910	4.1 (3.6-4.6)		
BSCM	612	6,027	10.2 (9.4-11.0)			107	2,748	3.9 (3.2-4.7)		
BSAL	437	4,915	8.9 (8.1-9.8)			164	3,272	5.0 (4.3-5.8)		
BSM	699	6,895	10.1 (9.4-10.9)			270	5,239	5.2 (4.6-5.8)		
BSCtoC	466	7,126	6.5 (6.0-7.2)			135	5,203	2.6 (2.2-3.1)		
BSC	583	5,643	10.3 (9.5-11.2)			239	4,581	5.2 (4.6-5.9)		
BSSL	813	11,081	7.3 (6.8-7.9)			503	12,780	3.9 (3.6-4.3)		
BSHC	631	4,411	14.3 (13.2-15.5)			102	3,070	3.3 (2.7-4.0)		
BSA Total	5,275	56,209	9.4 (9.1-9.6)			1,800	43,803	4.1 (3.9-4.3)		
50-69 years										
BSWN	805	7,659	10.5 (9.8-11.3)	✓	ns	1,359	41,015	3.3 (3.1-3.5)	✓✓✓	*
BSCM	476	4,563	10.4 (9.5-11.4)	✓	ns	640	20,347	3.1 (2.9-3.4)	✓✓✓	*
BSAL	376	3,630	10.4 (9.3-11.5)	✓	ns	597	18,832	3.2 (2.9-3.4)	✓✓✓	*
BSM	483	4,831	10.0 (9.1-10.9)	✓	ns	1,492	40,238	3.7 (3.5-3.9)	✓✓✓	*
BSCtoC	349	4,758	7.3 (6.6-8.1)	✓✓✓	*	652	36,778	1.8 (1.6-1.9)	✓✓✓	*
BSC	402	3,522	11.4 (10.3-12.6)	×××	*	1,117	29,664	3.8 (3.5-4.0)	✓✓✓	*
BSSL	235	3,444	6.8 (6.0-7.8)	✓✓✓	*	1,719	63,577	2.7 (2.6-2.8)	✓✓✓	*
BSHC	305	2,117	14.4 (12.8-16.1)	×××	*	593	22,395	2.6 (2.4-2.9)	✓✓✓	*
BSA Total	3,431	34,524	9.9 (9.6-10.3)	✓	ns	8,169	272,846	3.0 (2.9-3.1)	✓✓✓	*

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

Figure 2d.1: Trends in referral to assessment for initial screens, 6 months
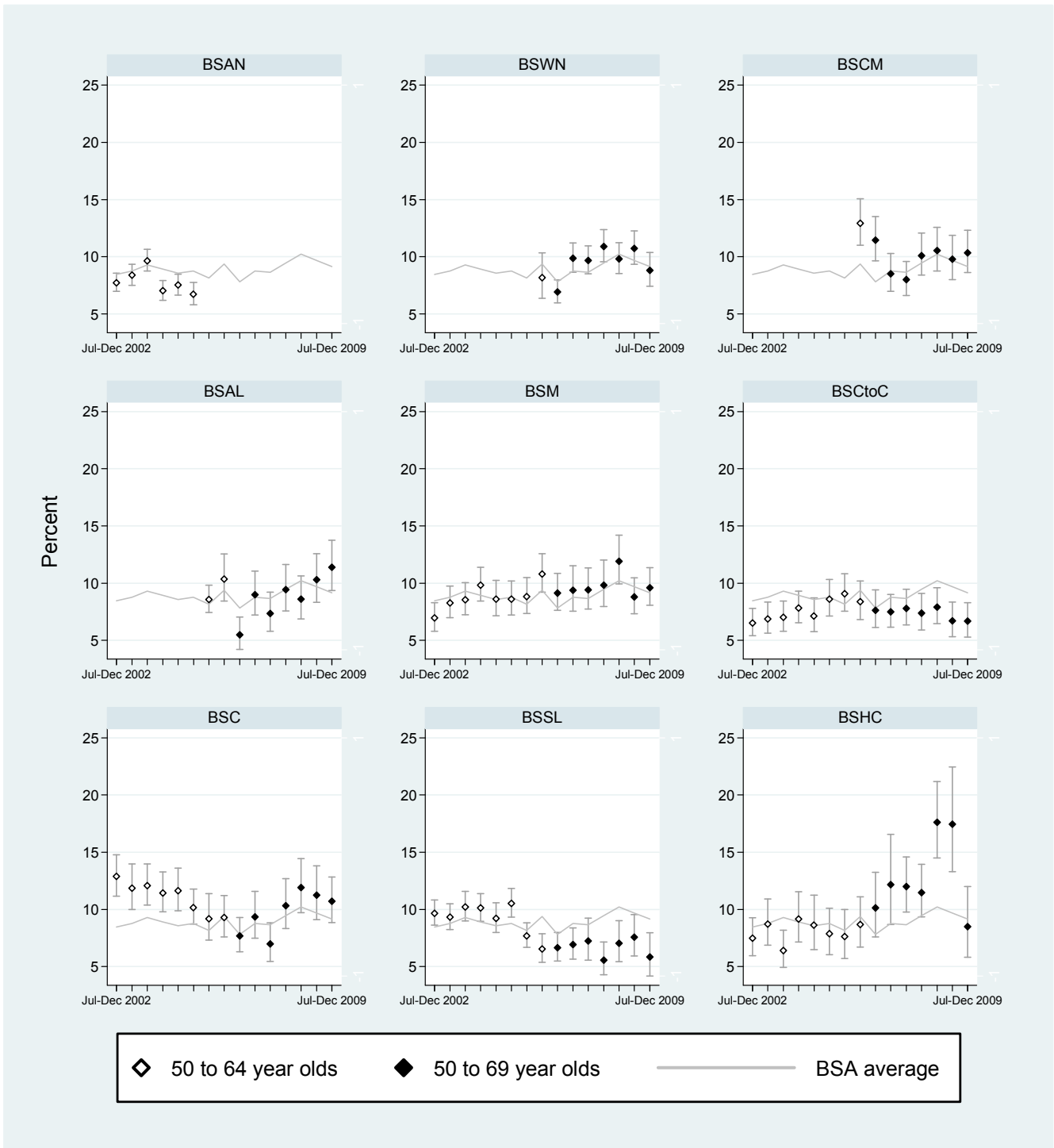
Figure 2d.1: Trends in referral to assessment for initial screens, 2 years
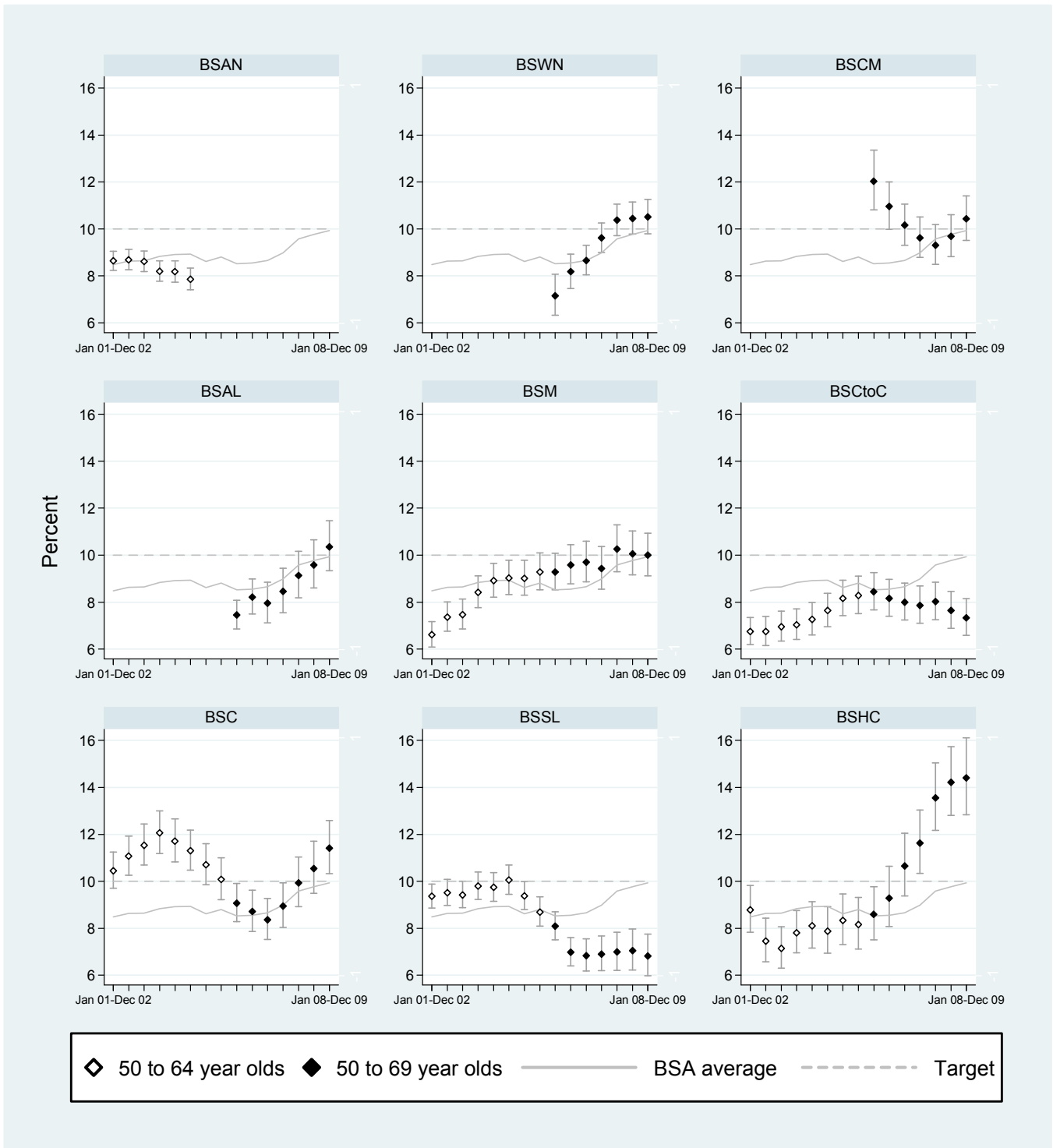
Figure 2d.2: Trends in referral to assessment for subsequent screens, 6 months
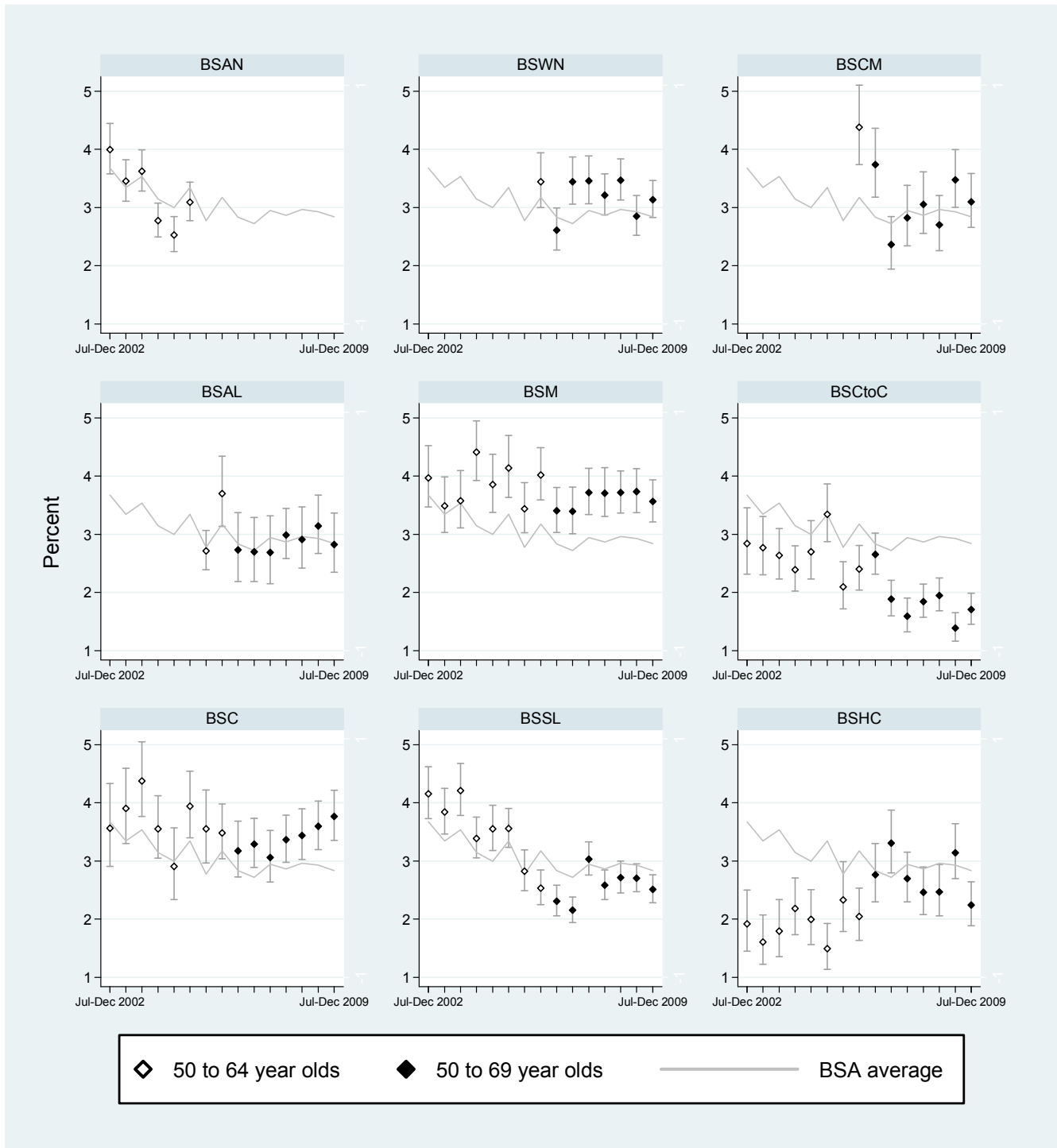
Figure 2d.2: Trends in referral to assessment for subsequent screens, 2 years
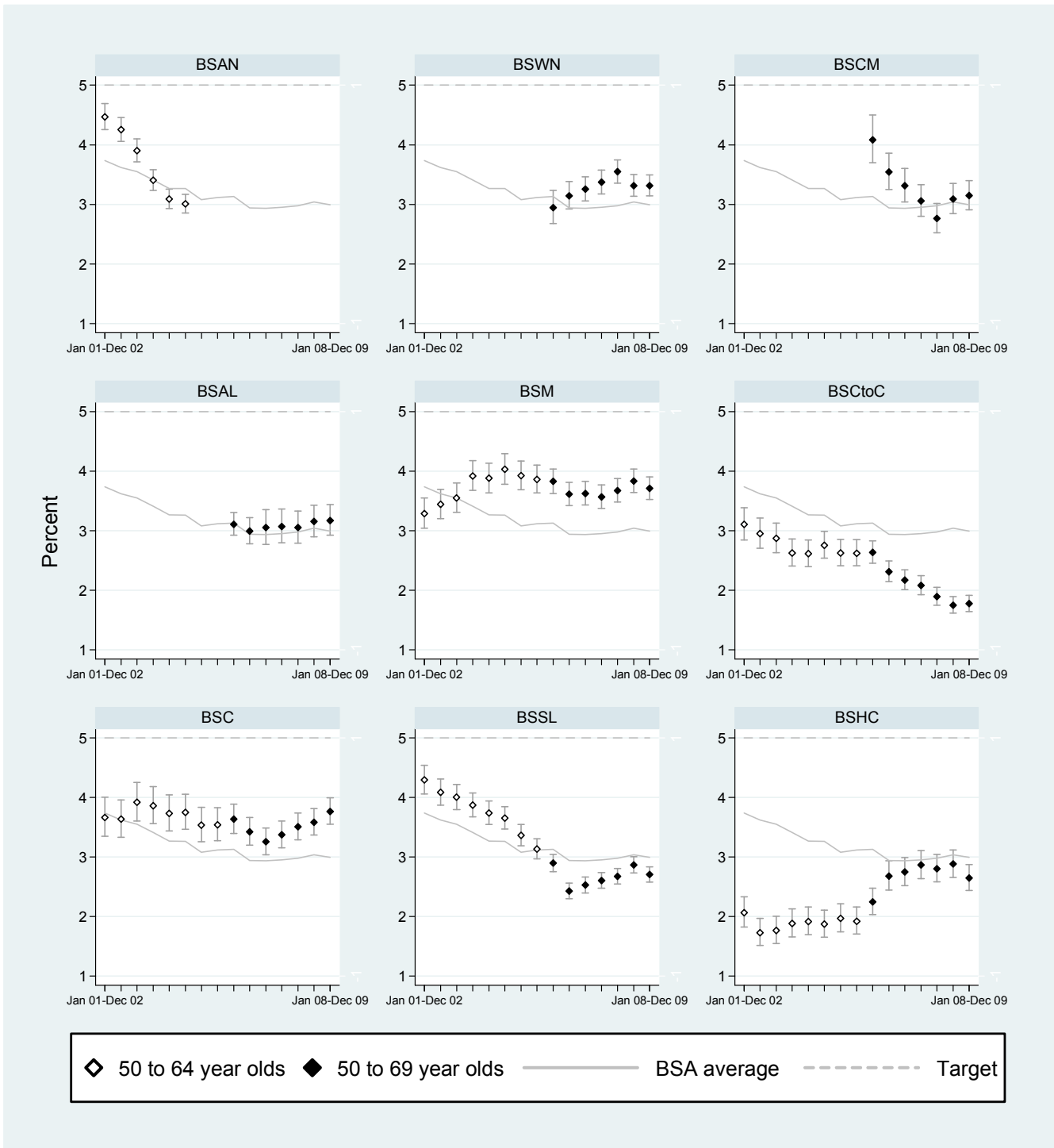
2.e. False positive rate

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%CI)		Number of false positives	Women screened	% (95%CI)
45-49 years							
BSWN	235	2,474	9.5 (8.4-10.7)		89	2,361	3.8 (3.0-4.6)
BSCM	168	1,681	10.0 (8.6-11.5)		48	1,202	4.0 (3.0-5.3)
BSAL	91	1,213	7.5 (6.1-9.1)		33	799	4.1 (2.9-5.8)
BSM	207	2,167	9.6 (8.3-10.9)		67	1,436	4.7 (3.6-5.9)
BSCtoC	96	1,901	5.0 (4.1-6.1)		41	1,665	2.5 (1.8-3.3)
BSC	173	1,840	9.4 (8.1-10.8)		74	1,379	5.4 (4.2-6.7)
BSSL	146	2,338	6.2 (5.3-7.3)		81	2,768	2.9 (2.3-3.6)
BSHC	79	934	8.5 (6.8-10.4)		27	1,322	2.0 (1.4-3.0)
BSA Total	1,195	14,548	8.2 (7.8-8.7)		460	12,932	3.6 (3.2-3.9)
50-69 years							
BSWN	120	1,633	7.3 (6.1-8.7)		297	12,059	2.5 (2.2-2.8)
BSCM	110	1,217	9.0 (7.5-10.8)		140	5,780	2.4 (2.0-2.9)
BSAL	91	957	9.5 (7.7-11.5)		86	4,358	2.0 (1.6-2.4)
BSM	128	1,436	8.9 (7.5-10.5)		307	10,695	2.9 (2.6-3.2)
BSCtoC	65	1,199	5.4 (4.2-6.9)		115	9,671	1.2 (1.0-1.4)
BSC	99	1,092	9.1 (7.4-10.9)		247	8,017	3.1 (2.7-3.5)
BSSL	33	684	4.8 (3.3-6.7)		351	16,951	2.1 (1.9-2.3)
BSHC	29	377	7.7 (5.2-10.9)		114	6,334	1.8 (1.5-2.2)
BSA Total	675	8,595	7.9 (7.3-8.4)		1,657	73,865	2.2 (2.1-2.4)

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%

Table 2e.2: False positives as a percentage of women screened, 2 years

	Initial					Subsequent				
	Number of false positives	Women screened	% (95%CI)			Number of false positives	Women screened	% (95%CI)		
45-49 years										
BSWN	964	10,111	9.5 (9.0-10.1)			247	6,910	3.6 (3.1-4.0)		
BSCM	568	6,027	9.4 (8.7-10.2)			99	2,748	3.6 (2.9-4.4)		
BSAL	389	4,915	7.9 (7.2-8.7)			153	3,272	4.7 (4.0-5.5)		
BSM	660	6,895	9.6 (8.9-10.3)			248	5,239	4.7 (4.2-5.3)		
BSCtoC	411	7,126	5.8 (5.2-6.3)			118	5,203	2.3 (1.9-2.7)		
BSC	542	5,643	9.6 (8.8-10.4)			222	4,581	4.8 (4.2-5.5)		
BSSL	757	11,081	6.8 (6.4-7.3)			461	12,780	3.6 (3.3-3.9)		
BSHC	604	4,411	13.7 (12.7-14.7)			86	3,070	2.8 (2.2-3.4)		
BSA Total	4,895	56,209	8.7 (8.5-8.9)			1,634	43,803	3.7 (3.6-3.9)		
50-69 years										
BSWN	694	7,659	9.1 (8.4-9.7)	✓	ns	1,084	41,015	2.6 (2.5-2.8)	✓✓✓	*
BSCM	414	4,563	9.1 (8.3-9.9)	✓	ns	500	20,347	2.5 (2.2-2.7)	✓✓✓	*
BSAL	321	3,630	8.8 (7.9-9.8)	✓	ns	460	18,832	2.4 (2.2-2.7)	✓✓✓	*
BSM	436	4,831	9.0 (8.2-9.9)	✓	ns	1,227	40,238	3.0 (2.9-3.2)	✓✓✓	*
BSCtoC	285	4,758	6.0 (5.3-6.7)	✓✓✓	*	454	36,778	1.2 (1.1-1.4)	✓✓✓	*
BSC	352	3,522	10.0 (9.0-11.0)	✗✗✗	*	913	29,664	3.1 (2.9-3.3)	✓✓✓	*
BSSL	212	3,444	6.2 (5.4-7.0)	✓✓✓	*	1,402	63,577	2.2 (2.1-2.3)	✓✓✓	*
BSHC	282	2,117	13.3 (11.9-14.8)	✗✗✗	*	482	22,395	2.2 (2.0-2.4)	✓✓✓	*
BSA Total	2,996	34,524	8.7 (8.4-9.0)	✓	*	6,522	272,846	2.4 (2.3-2.4)	✓✓✓	*

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 ≥ 5-9% magnitude worse than target value and statistically significant
xxx Difference of ≥ 10% 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).
The number with diagnosed cancer as a percentage of the number referred to assessment.
Target:
≥ 9%.

Table 2f.1: Positive predictive value (cancers as a percentage of referrals to assessment), 6 months

	Initial			Subsequent		
	Number of cancers	Number of referrals	% (95%CI)	Number of cancers	Number of referrals	% (95%CI)
45-49 years						
BSWN	14	252	5.6 (3.1-9.1)	8	100	8.0 (3.5-15.2)
BSCM	7	181	3.9 (1.6-7.8)	3	51	5.9 (1.2-16.2)
BSAL	11	107	10.3 (5.2-17.7)	3	36	8.3 (1.8-22.5)
BSM	5	213	2.3 (0.8-5.4)	4	71	5.6 (1.6-13.8)
BSCtoC	11	111	9.9 (5.1-17.0)	3	46	6.5 (1.4-17.9)
BSC	16	191	8.4 (4.9-13.2)	5	79	6.3 (2.1-14.2)
BSSL	15	162	9.3 (5.3-14.8)	7	90	7.8 (3.2-15.4)
BSHC	3	82	3.7 (0.8-10.3)	6	35	17.1 (6.6-33.6)
BSA Total	82	1,299	6.3 (5.1-7.8)	39	508	7.7 (5.5-10.3)
50-69 years						
BSWN	18	144	12.5 (7.6-19.0)	74	378	19.6 (15.7-23.9)
BSCM	13	126	10.3 (5.6-17.0)	34	179	19.0 (13.5-25.5)
BSAL	14	109	12.8 (7.2-20.6)	34	123	27.6 (20.0-36.4)
BSM	8	138	5.8 (2.5-11.1)	70	381	18.4 (14.6-22.6)
BSCtoC	13	80	16.3 (8.9-26.2)	48	165	29.1 (22.3-36.7)
BSC	17	117	14.5 (8.7-22.2)	50	302	16.6 (12.5-21.2)
BSSL	7	40	17.5 (7.3-32.8)	72	426	16.9 (13.5-20.8)
BSHC	3	32	9.4 (2.0-25.0)	26	142	18.3 (12.3-25.7)
BSA Total	93	786	11.8 (9.7-14.3)	408	2,096	19.5 (17.8-21.2)

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

Table 2f.2: Positive predictive value (cancers as a percentage of referrals to assessment), 2 years

	Initial					Subsequent				
	Number of cancers	Number of referrals	% (95%CI)			Number of cancers	Number of referrals	% (95%CI)		
45-49 years										
BSWN	59	1,034	5.7 (4.4-7.3)			27	280	9.6 (6.5-13.7)		
BSCM	26	612	4.2 (2.8-6.2)			8	107	7.5 (3.3-14.2)		
BSAL	40	437	9.2 (6.6-12.3)			10	164	6.1 (3.0-10.9)		
BSM	35	699	5.0 (3.5-6.9)			21	270	7.8 (4.9-11.6)		
BSCtoC	44	466	9.4 (6.9-12.5)			10	135	7.4 (3.6-13.2)		
BSC	36	583	6.2 (4.4-8.4)			14	239	5.9 (3.2-9.6)		
BSSL	53	813	6.5 (4.9-8.4)			37	503	7.4 (5.2-10.0)		
BSHC	15	631	2.4 (1.3-3.9)			13	102	12.7 (7.0-20.8)		
BSA Total	308	5,275	5.8 (5.2-6.5)			140	1,800	7.8 (6.6-9.1)		
50-69 years										
BSWN	87	805	10.8 (8.7-13.2)	✓	ns	253	1,359	18.6 (16.6-20.8)	✓✓✓	*
BSCM	50	476	10.5 (7.9-13.6)	✓	ns	129	640	20.2 (17.1-23.5)	✓✓✓	*
BSAL	43	376	11.4 (8.4-15.1)	✓	ns	131	597	21.9 (18.7-25.5)	✓✓✓	*
BSM	42	483	8.7 (6.3-11.6)	✓	ns	254	1,492	17.0 (15.1-19.0)	✓✓✓	*
BSCtoC	45	349	12.9 (9.6-16.9)	✓✓✓	*	184	652	28.2 (24.8-31.8)	✓✓✓	*
BSC	45	402	11.2 (8.3-14.7)	✓	ns	188	1,117	16.8 (14.7-19.2)	✓✓✓	*
BSSL	22	235	9.4 (6.0-13.8)	✓	ns	304	1,719	17.7 (15.9-19.6)	✓✓✓	*
BSHC	16	305	5.2 (3.0-8.4)	✗✗✗	*	100	593	16.9 (13.9-20.1)	✓✓✓	*
BSA Total	350	3,431	10.2 (9.2-11.3)	✓✓✓	*	1,543	8,169	18.9 (18.0-19.8)	✓✓✓	*

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 ≥ 5-9% magnitude worse than target value and statistically significant
xxx Difference of ≥ 10% 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
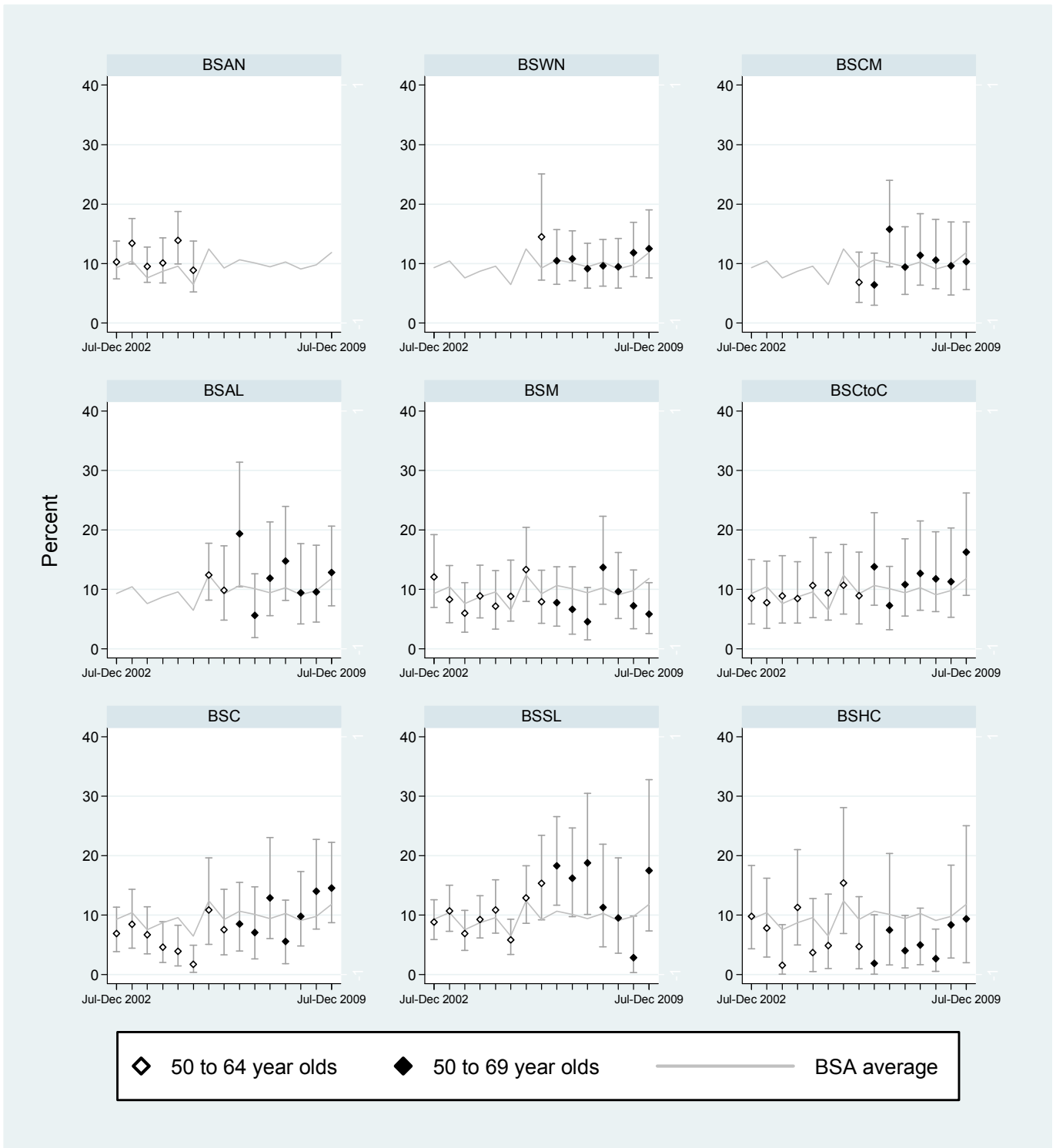
Figure 2f.1b: DCIS and invasive cancers as a percentage of referrals to assessment for initial screens, women 50-69 years, 2 years
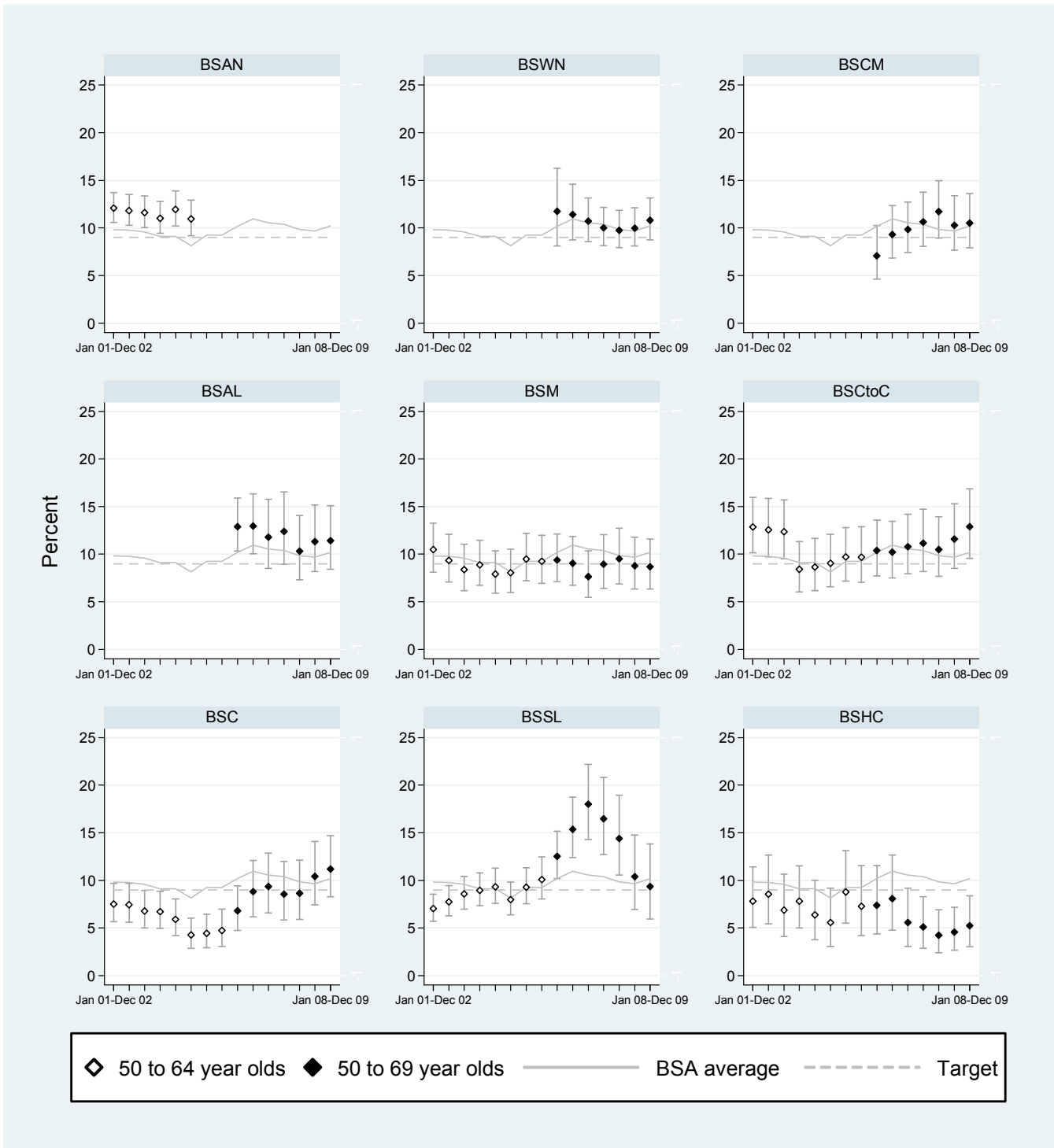
Figure 2f.2a: DCIS and invasive cancers as a percentage of referrals to assessment for subsequent screens, women 50-69 years, 6 months

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

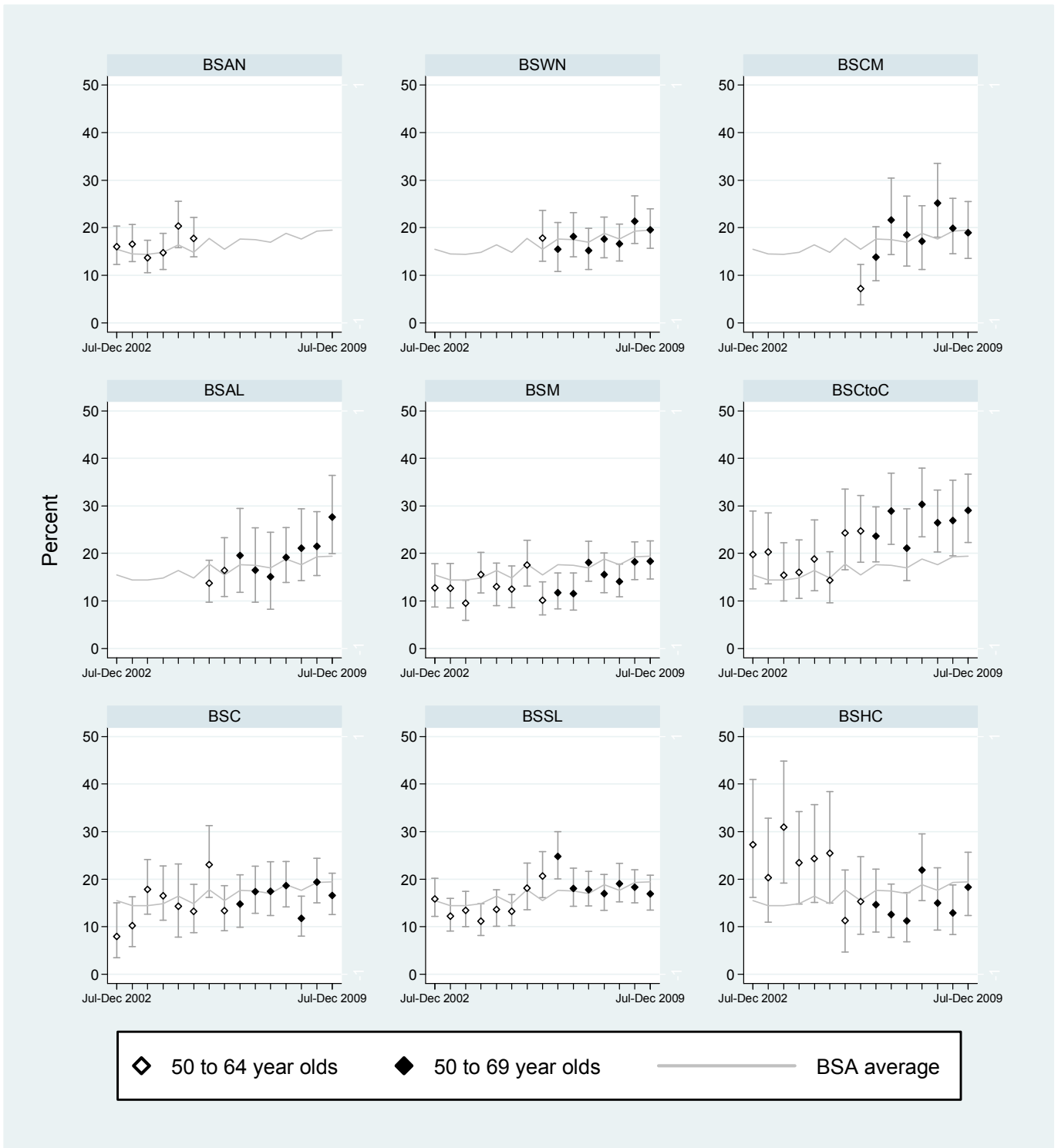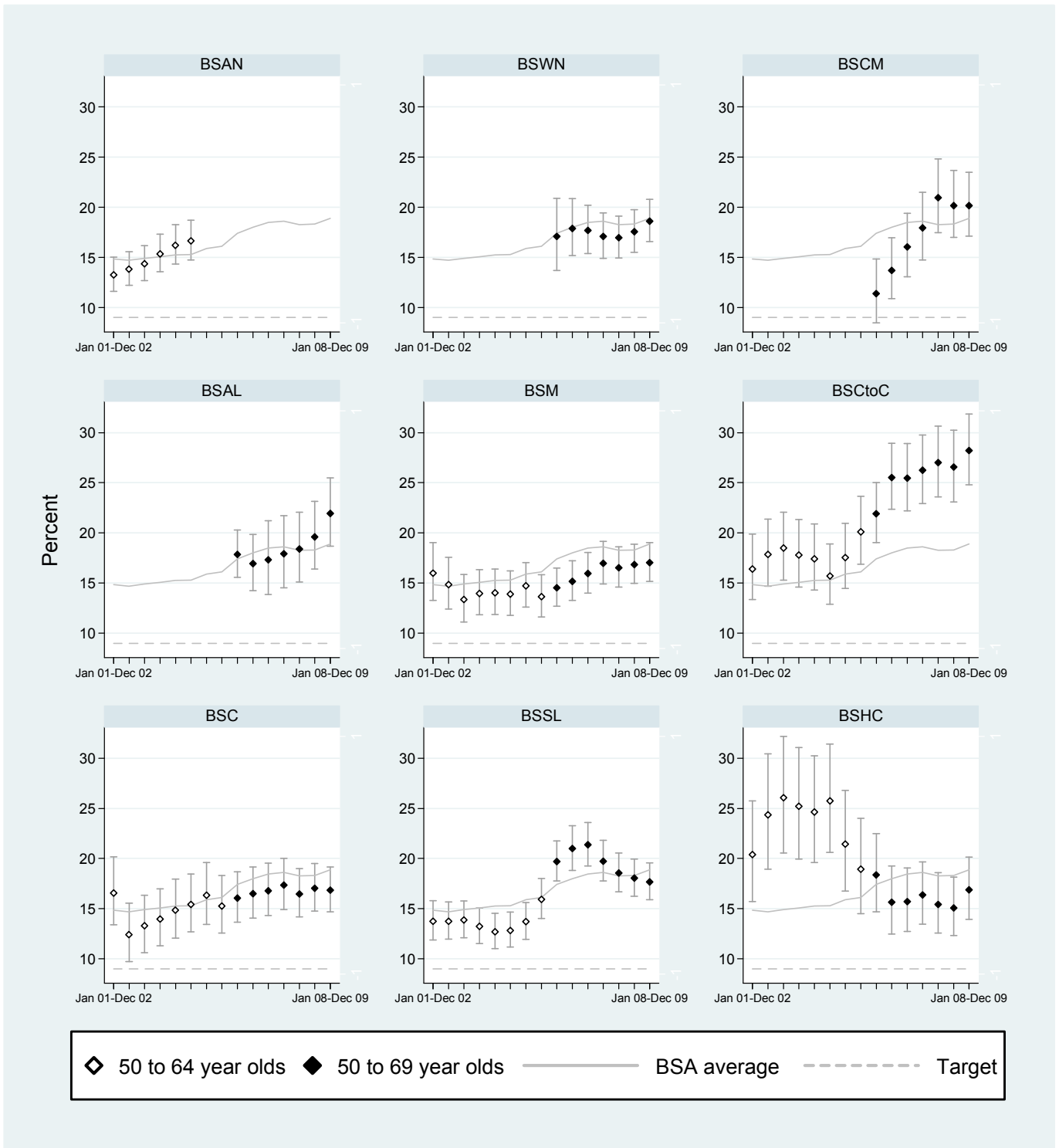|	Total benign OBs	<30 gm	% (95% CIs)	30-49 gm	% (95% CIs)	50-69 gm	% (95% CIs)	≥70 gm	% (95% CIs)	Unknown	% (95% CIs)
45-49 years											
BSWN	48	44	91.7 (80.0-97.7)	3	6.3 (1.3-17.2)	1	2.1 (0.1-11.1)	0	0.0 (0.0-7.4)	0	0.0 (0.0-7.4)
BSCM	13	10	76.9 (46.2-95.0)	3	23.1 (5.0-53.8)	0	0.0 (0.0-24.7)	0	0.0 (0.0-24.7)	0	0.0 (0.0-24.7)
BSAL	22	20	90.9 (70.8-98.9)	2	9.1 (1.1-29.2)	0	0.0 (0.0-15.4)	0	0.0 (0.0-15.4)	0	0.0 (0.0-15.4)
BSM	23	17	73.9 (51.6-89.8)	2	8.7 (1.1-28.0)	2	8.7 (1.1-28.0)	0	0.0 (0.0-14.8)	2	8.7 (1.1-28.0)
BSCtoC	8	7	87.5 (47.3-99.7)	1	12.5 (0.3-52.7)	0	0.0 (0.0-36.9)	0	0.0 (0.0-36.9)	0	0.0 (0.0-36.9)
BSC	11	7	63.6 (30.8-89.1)	1	9.1 (0.2-41.3)	0	0.0 (0.0-28.5)	0	0.0 (0.0-28.5)	3	27.3 (6.0-61.0)
BSSL	16	10	62.5 (35.4-84.8)	5	31.3 (11.0-58.7)	1	6.3 (0.2-30.2)	0	0.0 (0.0-20.6)	0	0.0 (0.0-20.6)
BSHC	14	12	85.7 (57.2-98.2)	0	0.0 (0.0-23.2)	0	0.0 (0.0-23.2)	2	14.3 (1.8-42.8)	0	0.0 (0.0-23.2)
BSA Total	155	127	81.9 (75.0-87.6)	17	11.0 (6.5-17.0)	4	2.6 (0.7-6.5)	2	1.3 (0.2-4.6)	5	3.2 (1.1-7.4)
50-69 years											
BSWN	51	45	88.2 (76.1-95.6)	4	7.8 (2.2-18.9)	1	2.0 (0.0-10.4)	1	2.0 (0.0-10.4)	0	0.0 (0.0-7.0)
BSCM	30	23	76.7 (57.7-90.1)	6	20.0 (7.7-38.6)	0	0.0 (0.0-11.6)	1	3.3 (0.1-17.2)	0	0.0 (0.0-11.6)
BSAL	25	23	92.0 (74.0-99.0)	1	4.0 (0.1-20.4)	0	0.0 (0.0-13.7)	1	4.0 (0.1-20.4)	0	0.0 (0.0-13.7)
BSM	39	26	66.7 (49.8-80.9)	9	23.1 (11.1-39.3)	2	5.1 (0.6-17.3)	2	5.1 (0.6-17.3)	0	0.0 (0.0-9.0)
BSCtoC	10	6	60.0 (26.2-87.8)	2	20.0 (2.5-55.6)	0	0.0 (0.0-30.8)	0	0.0 (0.0-30.8)	2	20.0 (2.5-55.6)
BSC	11	7	63.6 (30.8-89.1)	2	18.2 (2.3-51.8)	2	18.2 (2.3-51.8)	0	0.0 (0.0-28.5)	0	0.0 (0.0-28.5)
BSSL	16	12	75.0 (47.6-92.7)	2	12.5 (1.6-38.3)	2	12.5 (1.6-38.3)	0	0.0 (0.0-20.6)	0	0.0 (0.0-20.6)
BSHC	14	8	57.1 (28.9-82.3)	3	21.4 (4.7-50.8)	3	21.4 (4.7-50.8)	0	0.0 (0.0-23.2)	0	0.0 (0.0-23.2)
BSA Total	196	150	76.5 (70.0-82.3)	29	14.8 (10.1-20.6)	10	5.1 (2.5-9.2)	5	2.6 (0.8-5.9)	2	1.0 (0.1-3.6)

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%CI)		
45-49 years										
BSWN	18	22				75	86	87.2 (78.3-93.4)		
BSCM	10	10				32	34	94.1 (80.3-99.3)		
BSAL	13	14				48	50	96.0 (86.3-99.5)		
BSM	8	9				52	56	92.9 (82.7-98.0)		
BSCtoC	12	14				47	54	87.0 (75.1-94.6)		
BSC	20	21				46	50	92.0 (80.8-97.8)		
BSSL	21	22				88	90	97.8 (92.2-99.7)		
BSHC	9	9				27	28	96.4 (81.7-99.9)		
BSA Total	111	121	91.7 (85.3-96.0)			415	448	92.6 (89.8-94.9)		
50-69 years										
BSWN	90	92	97.8 (92.4-99.7)	✓✓✓	*	324	340	95.3 (92.5-97.3)	✓✓✓	*
BSCM	45	47	95.7 (85.5-99.5)	✓✓✓	*	173	179	96.6 (92.8-98.8)	✓✓✓	*
BSAL	43	48	89.6 (77.3-96.5)	✓✓✓	*	168	174	96.6 (92.6-98.7)	✓✓✓	*
BSM	72	78	92.3 (84.0-97.1)	✓✓✓	*	277	296	93.6 (90.2-96.1)	✓✓✓	*
BSCtoC	60	61	98.4 (91.2-100.0)	✓✓✓	*	220	229	96.1 (92.7-98.2)	✓✓✓	*
BSC	64	67	95.5 (87.5-99.1)	✓✓✓	*	223	233	95.7 (92.2-97.9)	✓✓✓	*
BSSL	76	79	96.2 (89.3-99.2)	✓✓✓	*	316	326	96.9 (94.4-98.5)	✓✓✓	*
BSHC	28	29	96.6 (82.2-99.9)	✓✓✓	*	112	116	96.6 (91.4-99.1)	✓✓✓	*
BSA Total	478	501	95.4 (93.2-97.1)	✓✓✓	*	1,813	1,893	95.8 (94.8-96.6)	✓✓✓	*

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

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

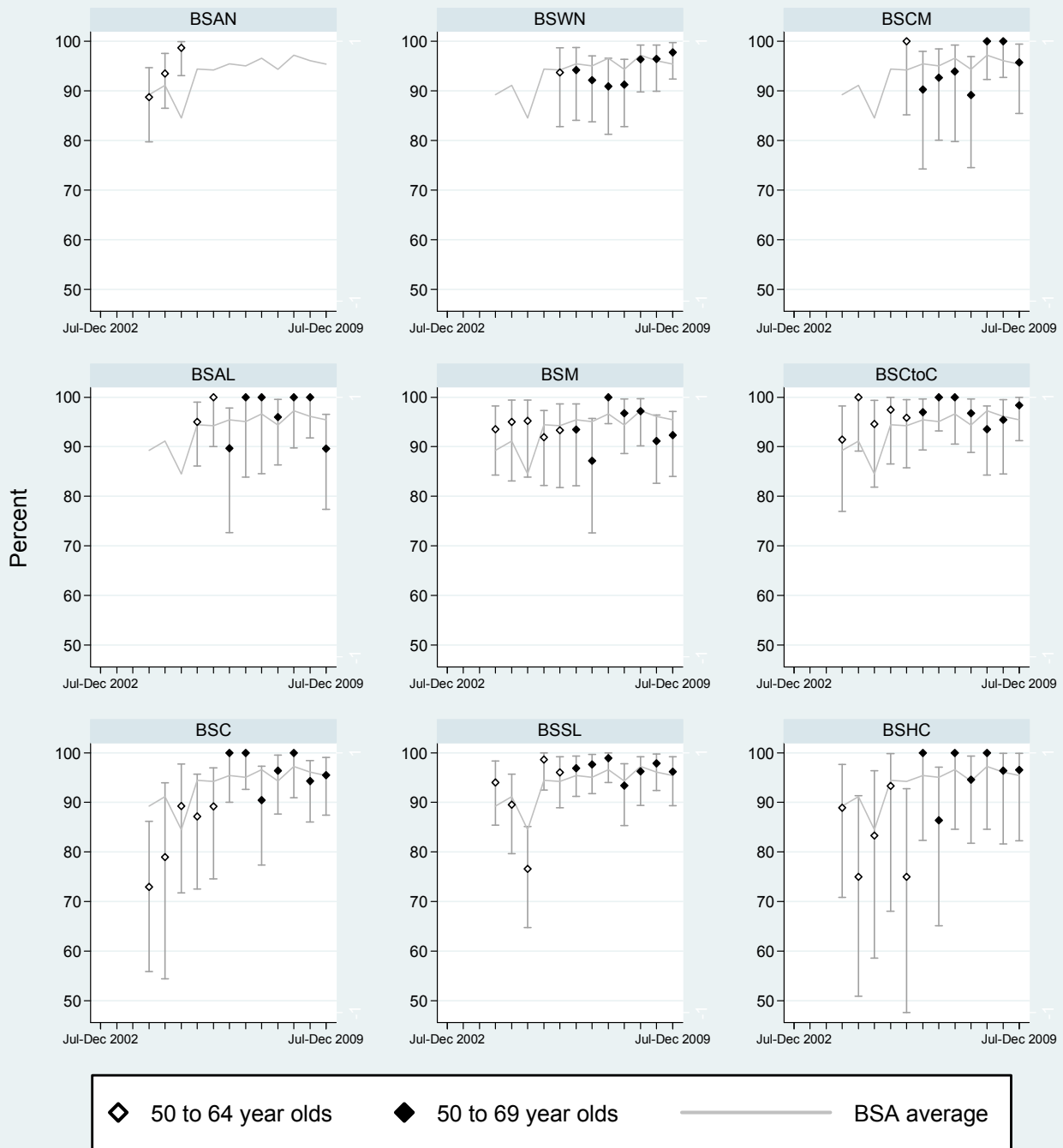xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant

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

Figure 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
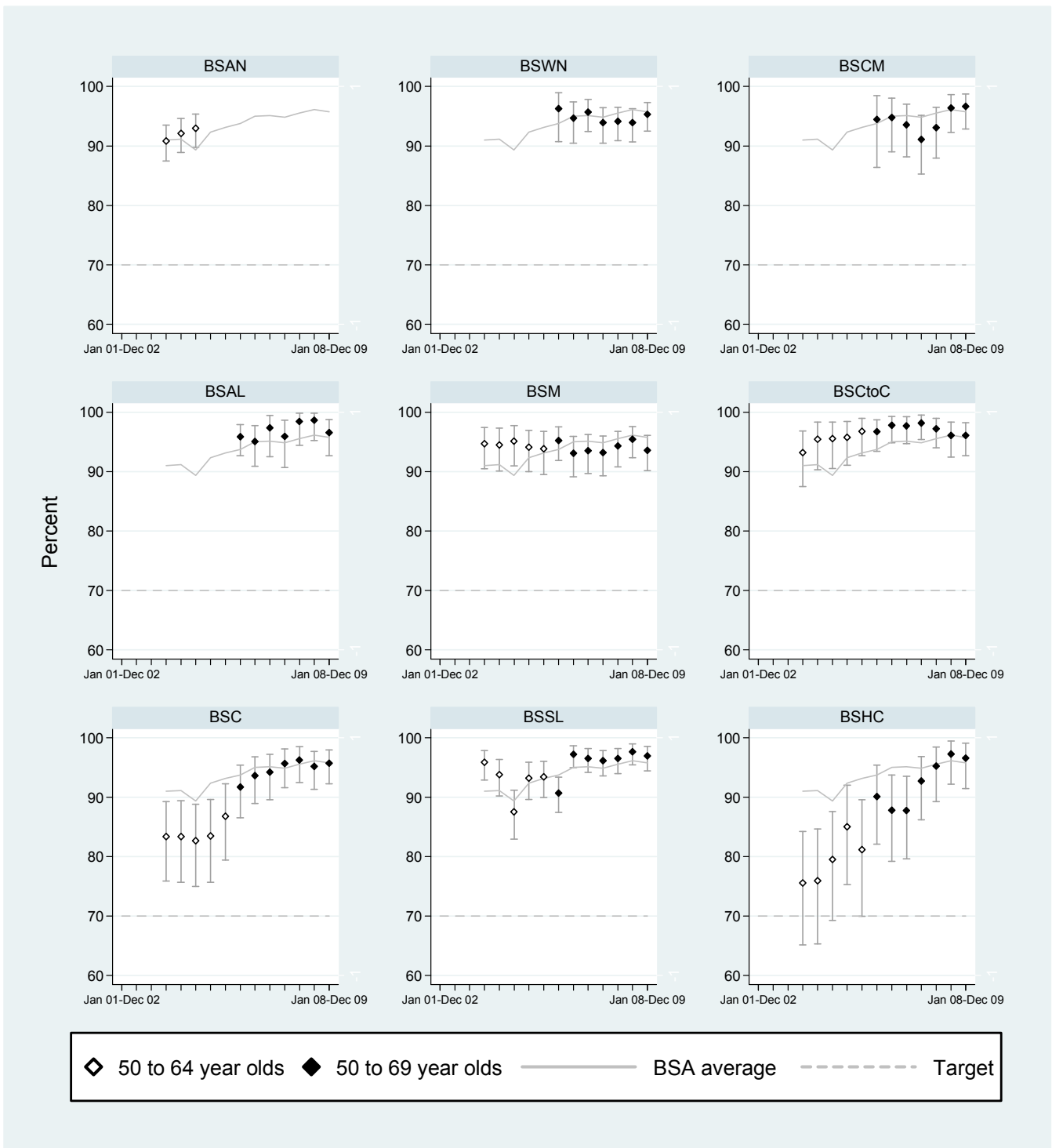
2.l. Specificity

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.l.1. Specificity, 6 months

Table 2l.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	2,222	2,457	90.4 (89.2-91.6)	2,262	2,351	96.2 (95.4-96.9)
BSCM	1,500	1,668	89.9 (88.4-91.3)	1,151	1,199	96.0 (94.7-97.0)
BSAL	1,106	1,197	92.4 (90.7-93.8)	763	796	95.9 (94.2-97.1)
BSM	1,954	2,161	90.4 (89.1-91.6)	1,365	1,432	95.3 (94.1-96.4)
BSCtoC	1,790	1,886	94.9 (93.8-95.9)	1,619	1,660	97.5 (96.7-98.2)
BSC	1,649	1,822	90.5 (89.1-91.8)	1,300	1,374	94.6 (93.3-95.7)
BSSL	2,176	2,322	93.7 (92.6-94.7)	2,678	2,759	97.1 (96.4-97.7)
BSHC	852	931	91.5 (89.5-93.2)	1,287	1,314	97.9 (97.0-98.6)
BSA Total	13,249	14,444	91.7 (91.3-92.2)	12,425	12,885	96.4 (96.1-96.7)
50-69 years						
BSWN	1,489	1,609	92.5 (91.1-93.8)	11,681	11,978	97.5 (97.2-97.8)
BSCM	1,091	1,201	90.8 (89.1-92.4)	5,601	5,741	97.6 (97.1-97.9)
BSAL	848	939	90.3 (88.2-92.1)	4,235	4,321	98.0 (97.5-98.4)
BSM	1,298	1,426	91.0 (89.4-92.5)	10,314	10,621	97.1 (96.8-97.4)
BSCtoC	1,119	1,184	94.5 (93.1-95.7)	9,506	9,621	98.8 (98.6-99.0)
BSC	975	1,074	90.8 (88.9-92.4)	7,715	7,962	96.9 (96.5-97.3)
BSSL	644	677	95.1 (93.2-96.6)	16,525	16,876	97.9 (97.7-98.1)
BSHC	345	374	92.2 (89.1-94.7)	6,192	6,306	98.2 (97.8-98.5)
BSA Total	7,809	8,484	92.0 (91.4-92.6)	71,769	73,426	97.7 (97.6-97.8)

RRS:
Exact binomial 95% confidence intervals presented

2.l.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 2l.2: Estimated specificity of BSA by Lead Provider, 2years

	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	9,414	10,378	90.7 (90.1-91.3)			6,656	6,903	96.4 (96.0-96.8)		
BSCM	5,510	6,078	90.7 (89.9-91.4)			2,642	2,741	96.4 (95.6-97.1)		
BSAL	4,658	5,047	92.3 (91.5-93.0)			3,158	3,311	95.4 (94.6-96.1)		
BSM	6,226	6,886	90.4 (89.7-91.1)			4,975	5,223	95.3 (94.6-95.8)		
BSCtoC	6,782	7,193	94.3 (93.7-94.8)			5,107	5,225	97.7 (97.3-98.1)		
BSC	5,276	5,818	90.7 (89.9-91.4)			4,441	4,663	95.2 (94.6-95.8)		
BSSL	10,788	11,545	93.4 (93.0-93.9)			12,420	12,881	96.4 (96.1-96.7)		
BSHC	3,958	4,562	86.8 (85.7-87.7)			3,010	3,096	97.2 (96.6-97.8)		
BSA Total	52,612	57,507	91.5 (91.3-91.7)			42,409	44,043	96.3 (96.1-96.5)		
50-69 years										
BSWN	7,154	7,848	91.2 (90.5-91.8)	✓	*	41,376	42,460	97.4 (97.3-97.6)	✓	*
BSCM	4,182	4,596	91.0 (90.1-91.8)	✓	*	20,025	20,525	97.6 (97.3-97.8)	✓	*
BSAL	3,409	3,730	91.4 (90.4-92.3)	✓	*	19,480	19,940	97.7 (97.5-97.9)	✓✓	*
BSM	4,387	4,823	91.0 (90.1-91.8)	✓	*	39,067	40,294	97.0 (96.8-97.1)	✓	*
BSCtoC	4,511	4,796	94.1 (93.4-94.7)	✓	*	37,184	37,638	98.8 (98.7-98.9)	✓✓	*
BSC	3,243	3,595	90.2 (89.2-91.2)	✓	*	30,399	31,312	97.1 (96.9-97.3)	✓	*
BSSL	3,379	3,591	94.1 (93.3-94.8)	✓	*	63,722	65,124	97.8 (97.7-98.0)	✓✓	*
BSHC	1,932	2,214	87.3 (85.8-88.6)	✕✕	*	22,472	22,954	97.9 (97.7-98.1)	✓✓	*
BSA Total	32,197	35,193	91.5 (91.2-91.8)	✓	*	273,725	280,247	97.7 (97.6-97.7)	✓✓	*

RRS:
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 ≥ 5-9% magnitude worse than target value and statistically significant
xxx Difference of ≥ 10% 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

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

	Initial					Subsequent				
	Benign open biopsies	Number of screens	Rate per 1,000 (95%CI)			Benign open biopsies	Number of screens	Rate per 1,000 (95%CI)		
45-49 years										
BSWN	31	10,111	3.1 (2.1-4.4)			17	6,910			
BSCM	12	6,027	2.0 (1.0-3.5)			1	2,748			
BSAL	15	4,915	3.1 (1.7-5.0)			7	3,272			
BSM	16	6,895	2.3 (1.3-3.8)			6	5,239			
BSCtoC	6	7,126	0.8 (0.3-1.8)			1	5,203			
BSC	6	5,643	1.1 (0.4-2.3)			5	4,581			
BSSL	14	11,081	1.3 (0.7-2.1)			1	12,780			
BSHC	13	4,411	2.9 (1.6-5.0)			1	3,070			
BSA Total	113	56,209	2.0 (1.7-2.4)			39	43,803			
50-69 years										
BSWN	15	7,659	2.0 (1.1-3.2)	✓✓✓	*	35	41,015	0.9 (0.6-1.2)	✓✓✓	*
BSCM	12	4,563	2.6 (1.4-4.6)	✓	ns	18	20,347	0.9 (0.5-1.4)	✓✓✓	*
BSAL	14	3,630	3.9 (2.1-6.5)	✓	ns	11	18,832	0.6 (0.3-1.0)	✓✓✓	*
BSM	9	4,831	1.9 (0.9-3.5)	✓	ns	29	40,238	0.7 (0.5-1.0)	✓✓✓	*
BSCtoC	4	4,758	0.8 (0.2-2.2)	✓✓✓	*	6	36,778	0.2 (0.1-0.4)	✓✓✓	*
BSC	6	3,522	1.7 (0.6-3.7)	✓	ns	5	29,664	0.2 (0.1-0.4)	✓✓✓	*
BSSL	4	3,444	1.2 (0.3-3.0)	✓✓✓	*	12	63,577	0.2 (0.1-0.3)	✓✓✓	*
BSHC	5	2,117	2.4 (0.8-5.5)	✓	ns	9	22,395	0.4 (0.2-0.8)	✓✓✓	*
BSA Total	69	34,524	2.0 (1.6-2.5)	✓✓✓	*	125	272,846	0.5 (0.4-0.5)	✓✓✓	*

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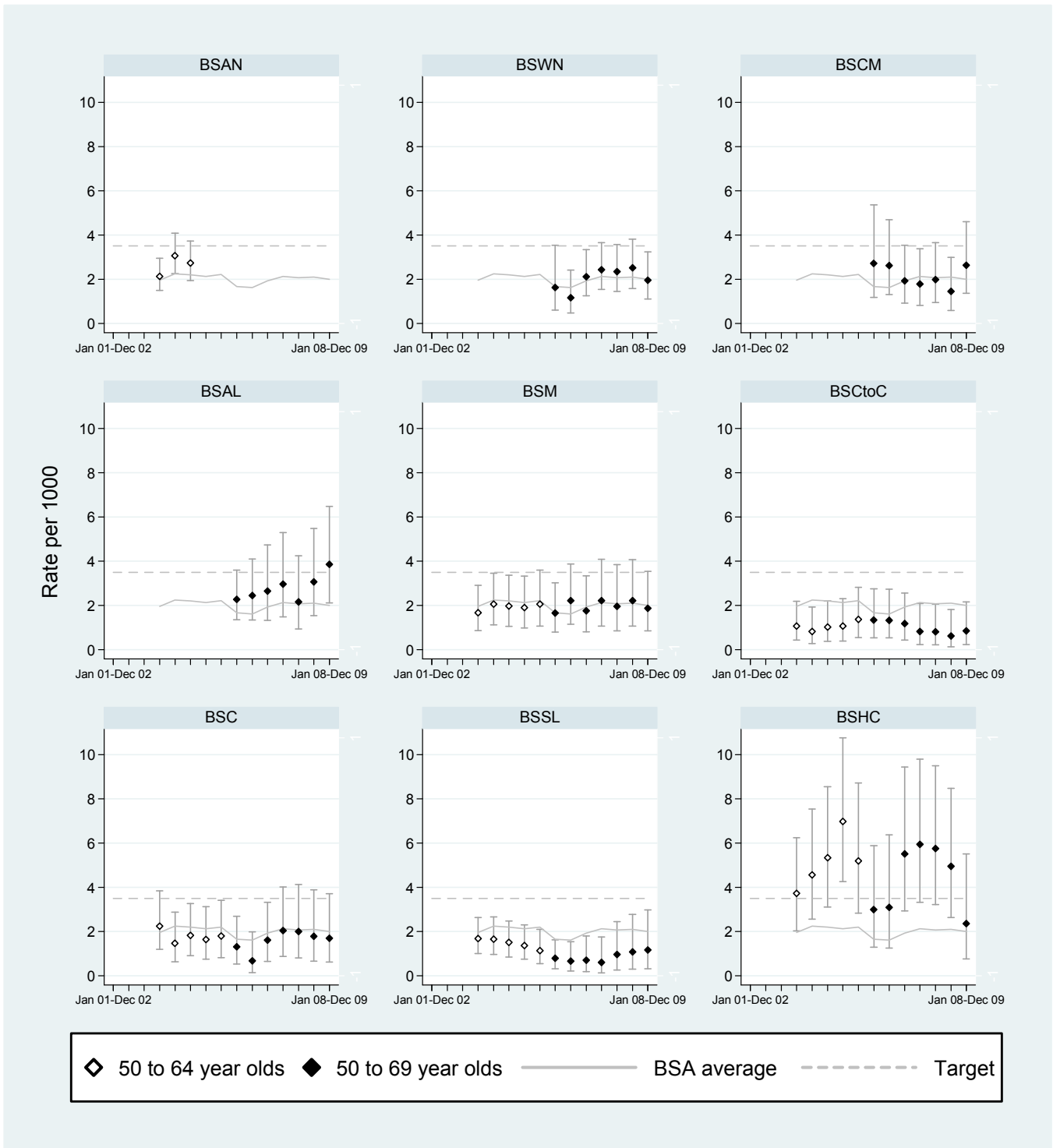✓✓✓ Difference of ≥ 10% magnitude better than target value and statistically significant
xx Difference of ≥ 5-9% magnitude worse than target value and statistically significant
xxx Difference of ≥ 10% magnitude worse than target value and statistically significant

Figure 2m2: Benign open biopsy rate for initial screens, 2 years

Figure 2m2: Benign open biopsy rate for subsequent screens, 2 years
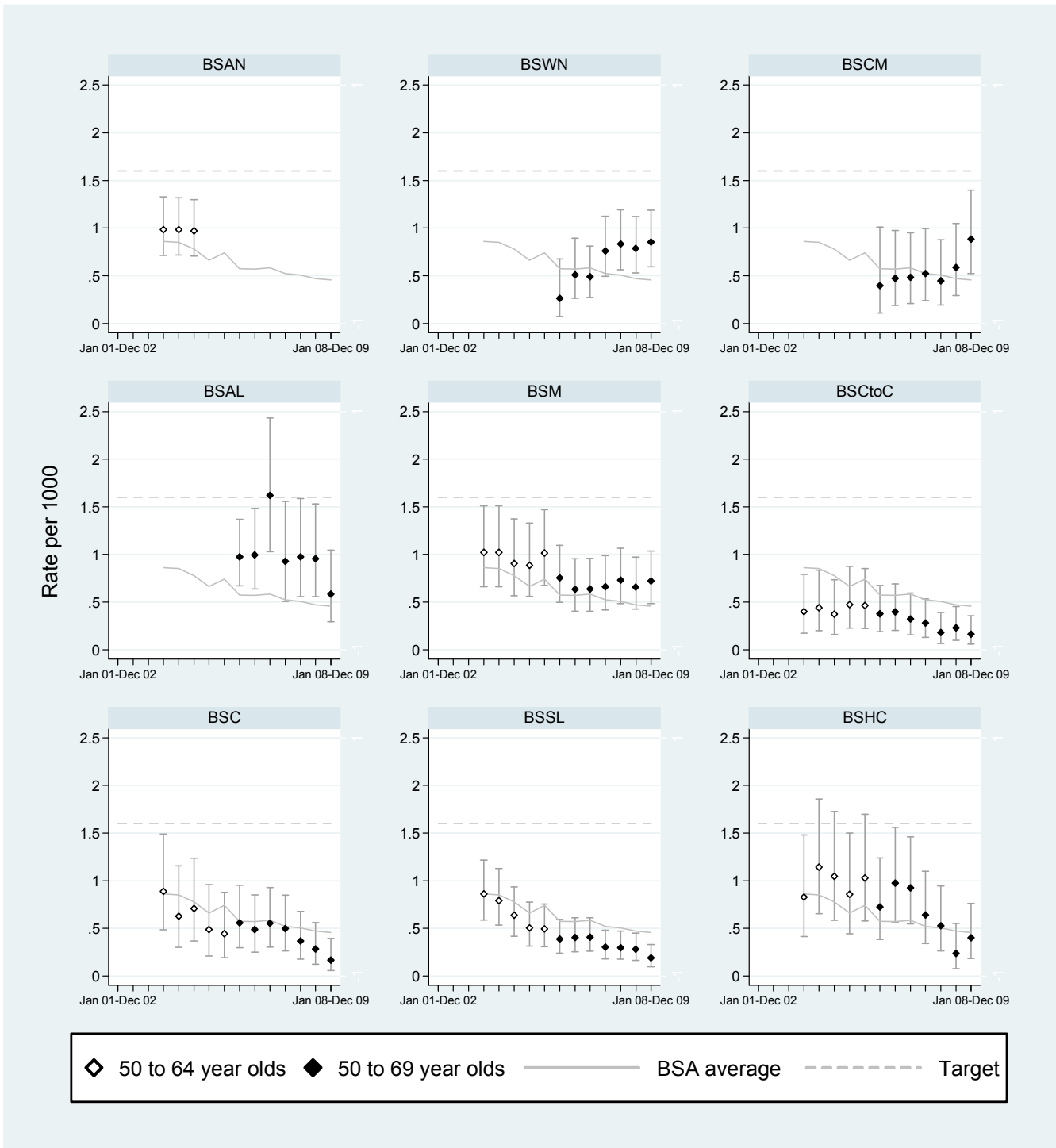
3. EARLY DETECTION OF DCIS OR INVASIVE BREAST CANCER

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.

Table 3a.1: Detection rate of DCIS and invasive breast cancer per 1,000 women screened, 6 months

	Initial			Subsequent		
	Number	Women screened	Rate per 1000 (95%CI)	Number	Women screened	Rate per 1000 (95%CI)
45-49 years						
BSWN	14	2,474	5.7 (3.1-9.5)	8	2,361	3.4 (1.5-6.7)
BSCM	7	1,681	4.2 (1.7-8.6)	3	1,202	2.5 (0.5-7.3)
BSAL	11	1,213	9.1 (4.5-16.2)	3	799	3.8 (0.8-11.0)
BSM	5	2,167	2.3 (0.7-5.4)	4	1,436	2.8 (0.8-7.1)
BSCtoC	11	1,901	5.8 (2.9-10.4)	3	1,665	1.8 (0.4-5.3)
BSC	16	1,840	8.7 (5.0-14.1)	5	1,379	3.6 (1.2-8.5)
BSSL	15	2,338	6.4 (3.6-10.6)	7	2,768	2.5 (1.0-5.2)
BSHC	3	934	3.2 (0.7-9.4)	6	1,322	4.5 (1.7-9.9)
BSA Total	82	14,548	5.6 (4.5-7.0)	39	12,932	3.0 (2.1-4.1)
50-69 years						
BSWN	18	1,633	11.0 (6.5-17.4)	74	12,059	6.1 (4.8-7.7)
BSCM	13	1,217	10.7 (5.7-18.3)	34	5,780	5.9 (4.1-8.2)
BSAL	14	957	14.6 (8.0-24.5)	34	4,358	7.8 (5.4-10.9)
BSM	8	1,436	5.6 (2.4-11.0)	70	10,695	6.5 (5.1-8.3)
BSCtoC	13	1,199	10.8 (5.8-18.5)	48	9,671	5.0 (3.7-6.6)
BSC	17	1,092	15.6 (9.1-24.9)	50	8,017	6.2 (4.6-8.2)
BSSL	7	684	10.2 (4.1-21.1)	72	16,951	4.2 (3.3-5.3)
BSHC	3	377	8.0 (1.6-23.3)	26	6,334	4.1 (2.7-6.0)
BSA Total	93	8,595	10.8 (8.7-13.3)	408	73,865	5.5 (5.0-6.1)

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

	Initial			Subsequent		
	Number	Women screened	Rate per 1,000 (95%CI)	Number	Women screened	Rate per 1,000 (95%CI)
45-49 years						
BSWN	59	10,111	5.8 (4.4-7.5)	27	6,910	3.9 (2.6-5.7)
BSCM	26	6,027	4.3 (2.8-6.3)	8	2,748	2.9 (1.3-5.7)
BSAL	40	4,915	8.1 (5.8-11.1)	10	3,272	3.1 (1.5-5.6)
BSM	35	6,895	5.1 (3.5-7.1)	21	5,239	4.0 (2.5-6.1)
BSCtoC	44	7,126	6.2 (4.5-8.3)	10	5,203	1.9 (0.9-3.5)
BSC	36	5,643	6.4 (4.5-8.8)	14	4,581	3.1 (1.7-5.1)
BSSL	53	11,081	4.8 (3.6-6.3)	37	12,780	2.9 (2.0-4.0)
BSHC	15	4,411	3.4 (1.9-5.6)	13	3,070	4.2 (2.3-7.2)
BSA Total	308	56,209	5.5 (4.9-6.1)	140	43,803	3.2 (2.7-3.8)
50-69 years						
BSWN	87	7,659	11.4 (9.1-14.0)	253	41,015	6.2 (5.4-7.0)
BSCM	50	4,563	11.0 (8.1-14.4)	129	20,347	6.3 (5.3-7.5)
BSAL	43	3,630	11.8 (8.6-16.0)	131	18,832	7.0 (5.8-8.3)
BSM	42	4,831	8.7 (6.3-11.8)	254	40,238	6.3 (5.6-7.1)
BSCtoC	45	4,758	9.5 (6.9-12.7)	184	36,778	5.0 (4.3-5.8)
BSC	45	3,522	12.8 (9.3-17.1)	188	29,664	6.3 (5.5-7.3)
BSSL	22	3,444	6.4 (4.0-9.7)	304	63,577	4.8 (4.3-5.4)
BSHC	16	2,117	7.6 (4.3-12.3)	100	22,395	4.5 (3.6-5.4)
BSA Total	350	34,524	10.1 (9.1-11.3)	1,543	272,846	5.7 (5.4-5.9)

Poisson 95% confidence intervals presented

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

Figure 3a: Detection rate of DCIS and invasive breast cancer, subsequent screens, 2 years
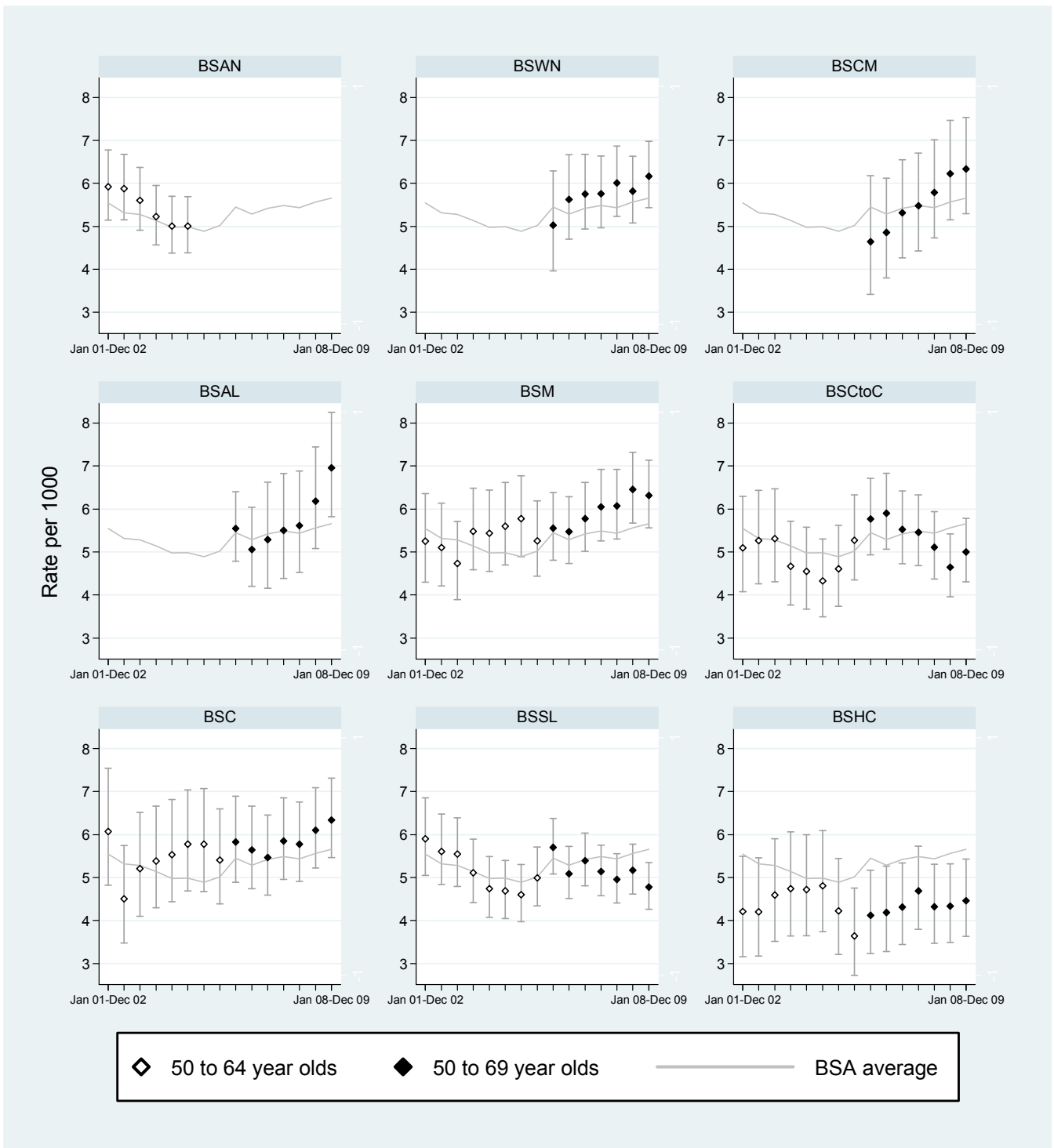
3.a.2b. Invasive cancer detection, 6 months and 2 years

Description:

The number of women who have invasive breast cancer detected within BSA, expressed as a rate per 1000 women screened.
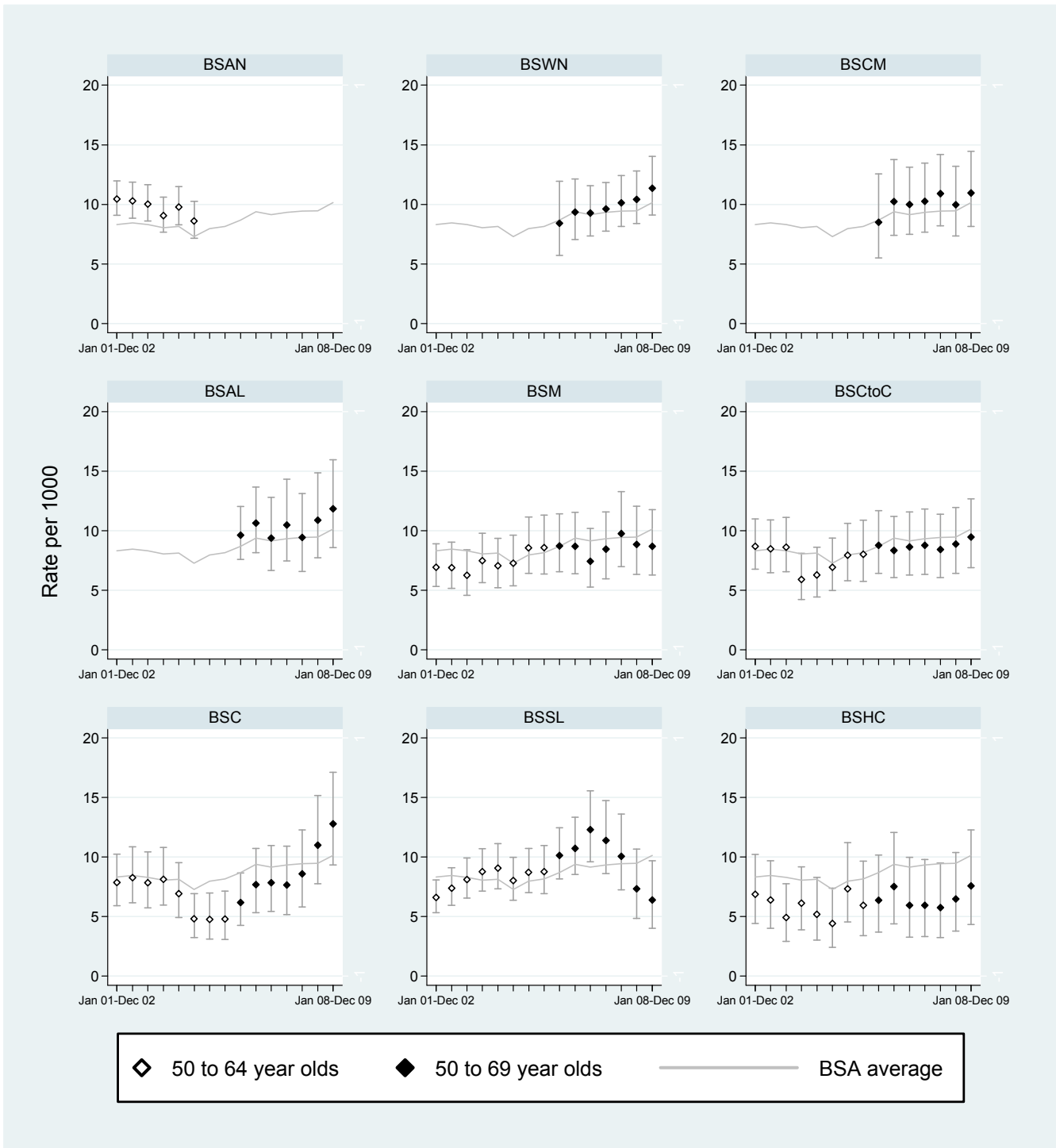
This is influenced by the background incidence of cancer in the population in the absence of screening. All other things being equal, the higher the cancer incidence, the higher the cancer detection rate will be.

Target:

Initial (Prevalent) round: ≥ 6.1 per 1000 women screened
Subsequent (Incident) round: ≥ 3.45 per 1000 women screened.

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

	Initial			Subsequent		
	Number	Women screened	Rate per 1,000 (95%CI)	Number	Women screened	Rate per 1,000 (95%CI)
45-49 years						
BSWN	7	2,474	2.8 (1.1-5.8)	6	2,361	2.5 (0.9-5.5)
BSCM*	4	1,681	2.4 (0.6-6.1)	1	1,202	0.8 (0.0-4.6)
BSAL*	7	1,213	5.8 (2.3-11.9)	1	799	1.3 (0.0-7.0)
BSM*	2	2,167	0.9 (0.1-3.3)	4	1,436	2.8 (0.8-7.1)
BSCtoC	8	1,901	4.2 (1.8-8.3)	1	1,665	0.6 (0.0-3.3)
BSC	8	1,840	4.3 (1.9-8.6)	3	1,379	2.2 (0.4-6.4)
BSSL	11	2,338	4.7 (2.3-8.4)	4	2,768	1.4 (0.4-3.7)
BSHC	3	934	3.2 (0.7-9.4)	3	1,322	2.3 (0.5-6.6)
BSA Total	50	14,548	3.4 (2.6-4.5)	23	12,932	1.8 (1.1-2.7)
50-69 years						
BSWN	18	1,633	11.0 (6.5-17.4)	51	12,059	4.2 (3.1-5.6)
BSCM	11	1,217	9.0 (4.5-16.2)	28	5,780	4.8 (3.2-7.0)
BSAL	10	957	10.4 (5.0-19.2)	25	4,358	5.7 (3.7-8.5)
BSM	6	1,436	4.2 (1.5-9.1)	53	10,695	5.0 (3.7-6.5)
BSCtoC	8	1,199	6.7 (2.9-13.1)	43	9,671	4.4 (3.2-6.0)
BSC	10	1,092	9.2 (4.4-16.8)	38	8,017	4.7 (3.4-6.5)
BSSL	7	684	10.2 (4.1-21.1)	62	16,951	3.7 (2.8-4.7)
BSHC	3	377	8.0 (1.6-23.3)	21	6,334	3.3 (2.1-5.1)
BSA Total	73	8,595	8.5 (6.7-10.7)	321	73,865	4.3 (3.9-4.8)

Poisson 95% confidence intervals presented

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

		Initial					Subsequent			
	Number	Women screened	Rate per 1,000 (95%CI)			Number	Women screened	Rate per 1,000 (95%CI)		
45-49 years										
BSWN	39	10,111	3.9 (2.7-5.3)			18	6,910	2.6 (1.5-4.1)		
BSCM	14	6,027	2.3 (1.3-3.9)			4	2,748	1.5 (0.4-3.7)		
BSAL	25	4,915	5.1 (3.3-7.5)			3	3,272	0.9 (0.2-2.7)		
BSM	22	6,895	3.2 (2.0-4.8)			13	5,239	2.5 (1.3-4.2)		
BSCtoC	27	7,126	3.8 (2.5-5.5)			8	5,203	1.5 (0.7-3.0)		
BSC	21	5,643	3.7 (2.3-5.7)			11	4,581	2.4 (1.2-4.3)		
BSSL	41	11,081	3.7 (2.7-5.0)			25	12,780	2.0 (1.3-2.9)		
BSHC	12	4,411	2.7 (1.4-4.8)			10	3,070	3.3 (1.6-6.0)		
BSA Total	201	56,209	3.6 (3.1-4.1)			92	43,803	2.1 (1.7-2.6)		
50-69 years										
BSWN	70	7,659	9.1 (7.1-11.5)	✓✓✓	*	187	41,015	4.6 (3.9-5.3)	✓✓✓	*
BSCM	35	4,563	7.7 (5.3-10.7)	✓	ns	101	20,347	5.0 (4.0-6.0)	✓✓✓	*
BSAL	35	3,630	9.6 (6.7-13.4)	✓✓✓	*	103	18,832	5.5 (4.5-6.6)	✓✓✓	*
BSM	34	4,831	7.0 (4.9-9.8)	✓	ns	180	40,238	4.5 (3.8-5.2)	✓✓✓	*
BSCtoC	30	4,758	6.3 (4.3-9.0)	✓	ns	157	36,778	4.3 (3.6-5.0)	✓✓✓	*
BSC	34	3,522	9.7 (6.7-13.5)	✓✓✓	*	140	29,664	4.7 (4.0-5.6)	✓✓✓	*
BSSL	17	3,444	4.9 (2.9-7.9)	✓	ns	242	63,577	3.8 (3.3-4.3)	✓	ns
BSHC	13	2,117	6.1 (3.3-10.5)	✓	ns	87	22,395	3.9 (3.1-4.8)	✓	ns
BSA Total	268	34,524	7.8 (6.9-8.7)	✓✓✓	*	1,197	272,846	4.4 (4.1-4.6)	✓✓✓	*

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
xxx Difference of ≥ 10% 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	8.8 (7.4-10.4)	92.5 (91.1-93.8)	12.5 (7.6-19.0)	11.0 (6.5-17.4)
BSCM	10.4 (8.6-12.3)	90.8 (89.1-92.4)	10.3 (5.6-17.0)	10.7 (5.7-18.3)
BSAL	11.4 (9.4-13.7)	90.3 (88.2-92.1)	12.8 (7.2-20.6)	14.6 (8.0-24.5)
BSM	9.6 (8.1-11.4)	91.0 (89.4-92.5)	5.8 (2.5-11.1)	5.6 (2.4-11.0)
BSCtoC	6.7 (5.3-8.3)	94.5 (93.1-95.7)	16.3 (8.9-26.2)	10.8 (5.8-18.5)
BSC	10.7 (8.9-12.8)	90.8 (88.9-92.4)	14.5 (8.7-22.2)	15.6 (9.1-24.9)
BSSL	5.8 (4.2-8.0)	95.1 (93.2-96.6)	17.5 (7.3-32.8)	10.2 (4.1-21.1)
BSHC	8.5 (5.8-12.0)	92.2 (89.1-94.7)	9.4 (2.0-25.0)	8.0 (1.6-23.3)
BSA Total	9.1 (8.5-9.8)	92.0 (91.4-92.6)	11.8 (9.7-14.3)	10.8 (8.7-13.3)
Subsequent round				
BSWN	3.1 (2.8-3.5)	97.5 (97.2-97.8)	19.6 (15.7-23.9)	6.1 (4.8-7.7)
BSCM	3.1 (2.7-3.6)	97.6 (97.1-97.9)	19.0 (13.5-25.5)	5.9 (4.1-8.2)
BSAL	2.8 (2.3-3.4)	98.0 (97.5-98.4)	27.6 (20.0-36.4)	7.8 (5.4-10.9)
BSM	3.6 (3.2-3.9)	97.1 (96.8-97.4)	18.4 (14.6-22.6)	6.5 (5.1-8.3)
BSCtoC	1.7 (1.5-2.0)	98.8 (98.6-99.0)	29.1 (22.3-36.7)	5.0 (3.7-6.6)
BSC	3.8 (3.4-4.2)	96.9 (96.5-97.3)	16.6 (12.5-21.2)	6.2 (4.6-8.2)
BSSL	2.5 (2.3-2.8)	97.9 (97.7-98.1)	16.9 (13.5-20.8)	4.2 (3.3-5.3)
BSHC	2.2 (1.9-2.6)	98.2 (97.8-98.5)	18.3 (12.3-25.7)	4.1 (2.7-6.0)
BSA Total	2.8 (2.7-3.0)	97.7 (97.6-97.8)	19.5 (17.8-21.2)	5.5 (5.0-6.1)
2 years				
Initial round				
BSWN	10.5 (9.8-11.3)	91.2 (90.5-91.8)	10.8 (8.7-13.2)	11.4 (9.1-14.0)
BSCM	10.4 (9.5-11.4)	91.0 (90.1-91.8)	10.5 (7.9-13.6)	11.0 (8.1-14.4)
BSAL	10.4 (9.3-11.5)	91.4 (90.4-92.3)	11.4 (8.4-15.1)	11.8 (8.6-16.0)
BSM	10.0 (9.1-10.9)	91.0 (90.1-91.8)	8.7 (6.3-11.6)	8.7 (6.3-11.8)
BSCtoC	7.3 (6.6-8.1)	94.1 (93.4-94.7)	12.9 (9.6-16.9)	9.5 (6.9-12.7)
BSC	11.4 (10.3-12.6)	90.2 (89.2-91.2)	11.2 (8.3-14.7)	12.8 (9.3-17.1)
BSSL	6.8 (6.0-7.8)	94.1 (93.3-94.8)	9.4 (6.0-13.8)	6.4 (4.0-9.7)
BSHC	14.4 (12.8-16.1)	87.3 (85.8-88.6)	5.2 (3.0-8.4)	7.6 (4.3-12.3)
BSA Total	9.9 (9.6-10.3)	91.5 (91.2-91.8)	10.2 (9.2-11.3)	10.1 (9.1-11.3)
Subsequent round				
BSWN	3.3 (3.1-3.5)	97.4 (97.3-97.6)	18.6 (16.6-20.8)	6.2 (5.4-7.0)
BSCM	3.1 (2.9-3.4)	97.6 (97.3-97.8)	20.2 (17.1-23.5)	6.3 (5.3-7.5)
BSAL	3.2 (2.9-3.4)	97.7 (97.5-97.9)	21.9 (18.7-25.5)	7.0 (5.8-8.3)
BSM	3.7 (3.5-3.9)	97.0 (96.8-97.1)	17.0 (15.1-19.0)	6.3 (5.6-7.1)
BSCtoC	1.8 (1.6-1.9)	98.8 (98.7-98.9)	28.2 (24.8-31.8)	5.0 (4.3-5.8)
BSC	3.8 (3.5-4.0)	97.1 (96.9-97.3)	16.8 (14.7-19.2)	6.3 (5.5-7.3)
BSSL	2.7 (2.6-2.8)	97.8 (97.7-98.0)	17.7 (15.9-19.6)	4.8 (4.3-5.4)
BSHC	2.6 (2.4-2.9)	97.9 (97.7-98.1)	16.9 (13.9-20.1)	4.5 (3.6-5.4)
BSA Total	3.0 (2.9-3.1)	97.7 (97.6-97.7)	18.9 (18.0-19.8)	5.7 (5.4-5.9)

3.b. Detection of invasive cancers ≤ 10 mm

Description:
Proportion and rate of invasive breast cancer of diameter ≤ 10 mm.
Target:
Initial (Prevalent) round: ≥ 25%, which gives a rate of ≥ 15.2 per 10,000 screens
Subsequent (Incident) round: ≥ 30%, which gives a rate of ≥ 10.45 per 10,000 screens

Table 3b.1: Proportion of invasive cancers less than or equal to 10 mm, 2 years

	Initial					Subsequent				
	Invasive cancers ≤10 mm	Total invasive cancers	% (95%CI)			Invasive cancers ≤10 mm	Total invasive cancers	% (95%CI)		
45-49 years										
BSWN	10	39	25.6 (13.0-42.1)			7	18	38.9 (17.3-64.3)		
BSCM	3	14	21.4 (4.7-50.8)			2	4	50.0 (6.8-93.2)		
BSAL	7	25	28.0 (12.1-49.4)			2	3	66.7 (9.4-99.2)		
BSM	7	22	31.8 (13.9-54.9)			3	13	23.1 (5.0-53.8)		
BSCtoC	7	27	25.9 (11.1-46.3)			1	8	12.5 (0.3-52.7)		
BSC	6	21	28.6 (11.3-52.2)			5	11	45.5 (16.7-76.6)		
BSSL	12	41	29.3 (16.1-45.5)			5	25	20.0 (6.8-40.7)		
BSHC	4	12	33.3 (9.9-65.1)			0	10	0.0 (0.0-30.8)		
BSA Total	56	201	27.9 (21.8-34.6)			25	92	27.2 (18.4-37.4)		
50-69 years										
BSWN	17	70	24.3 (14.8-36.0)	✓	ns	79	187	42.2 (35.1-49.7)	✓✓✓	*
BSCM	9	35	25.7 (12.5-43.3)	✓	ns	39	101	38.6 (29.1-48.8)	✓	ns
BSAL	16	35	45.7 (28.8-63.4)	✓✓✓	*	44	103	42.7 (33.0-52.8)	✓✓✓	*
BSM	7	34	20.6 (8.7-37.9)	✓	ns	78	180	43.3 (36.0-50.9)	✓✓✓	*
BSCtoC	8	30	26.7 (12.3-45.9)	✓	ns	46	157	29.3 (22.3-37.1)	✓	ns
BSC	9	34	26.5 (12.9-44.4)	✓	ns	52	140	37.1 (29.1-45.7)	✓	ns
BSSL	2	17	11.8 (1.5-36.4)	✓	ns	101	242	41.7 (35.5-48.2)	✓✓✓	*
BSHC	1	13	7.7 (0.2-36.0)	✓	ns	32	87	36.8 (26.7-47.8)	✓	ns
BSA Total	69	268	25.7 (20.6-31.4)	✓	ns	471	1197	39.3 (36.6-42.2)	✓✓✓	*

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

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

	Initial					Subsequent				
	Invasive cancers ≤10 mm	Women screened	Rate per 10,000 (95%CI)			Invasive cancers ≤10 mm	Women screened	Rate per 10,000 (95%CI)		
45-49 years										
BSWN	10	10,111	9.9 (4.7-18.2)			7	6,910	10.1 (4.1-20.9)		
BSCM	3	6,027	5.0 (1.0-14.5)			2	2,748	7.3 (0.9-26.3)		
BSAL	7	4,915	14.2 (5.7-29.3)			2	3,272	6.1 (0.7-22.1)		
BSM	7	6,895	10.2 (4.1-20.9)			3	5,239	5.7 (1.2-16.7)		
BSCtoC	7	7,126	9.8 (3.9-20.2)			1	5,203	1.9 (0.0-10.7)		
BSC	6	5,643	10.6 (3.9-23.1)			5	4,581	10.9 (3.5-25.5)		
BSSL	12	11,081	10.8 (5.6-18.9)			5	12,780	3.9 (1.3-9.1)		
BSHC	4	4,411	9.1 (2.5-23.2)			0	3,070	0.0 (0.0-12.0)		
BSA Total	56	56,209	10.0 (7.5-12.9)			25	43,803	5.7 (3.7-8.4)		
50-69 years										
BSWN	17	7,659	22.2 (12.9-35.5)	✓	ns	79	41,015	19.3 (15.2-24.0)	✓✓✓	*
BSCM	9	4,563	19.7 (9.0-37.4)	✓	ns	39	20,347	19.2 (13.6-26.2)	✓✓✓	*
BSAL	16	3,630	44.1 (25.2-71.6)	✓✓✓	*	44	18,832	23.4 (17.0-31.4)	✓✓✓	*
BSM	7	4,831	14.5 (5.8-29.9)	✓	ns	78	40,238	19.4 (15.3-24.2)	✓✓✓	*
BSCtoC	8	4,758	16.8 (7.3-33.1)	✓	ns	46	36,778	12.5 (9.2-16.7)	✓	ns
BSC	9	3,522	25.6 (11.7-48.5)	✓	ns	52	29,664	17.5 (13.1-23.0)	✓✓✓	*
BSSL	2	3,444	5.8 (0.7-21.0)	✓	ns	101	63,577	15.9 (12.9-19.3)	✓✓✓	*
BSHC	1	2,117	4.7 (0.1-26.3)	✓	ns	32	22,395	14.3 (9.8-20.2)	✓	ns
BSA Total	69	34,524	20.0 (15.6-25.3)	✓✓✓	*	471	272,846	17.3 (15.7-18.9)	✓✓✓	*

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
✓✓✓ 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

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: >50%, which gives a rate of >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

	Initial					Subsequent				
	Invasive cancers <15 mm	Total invasive cancers	% (95%CI)			Invasive cancers <15 mm	Total invasive cancers	% (95%CI)		
45-49 years										
BSWN	15	39	38.5 (23.4-55.4)			10	18	55.6 (30.8-78.5)		
BSCM	4	14	28.6 (8.4-58.1)			3	4	75.0 (19.4-99.4)		
BSAL	11	25	44.0 (24.4-65.1)			2	3	66.7 (9.4-99.2)		
BSM	11	22	50.0 (28.2-71.8)			4	13	30.8 (9.1-61.4)		
BSCtoC	10	27	37.0 (19.4-57.6)			5	8	62.5 (24.5-91.5)		
BSC	11	21	52.4 (29.8-74.3)			5	11	45.5 (16.7-76.6)		
BSSL	18	41	43.9 (28.5-60.3)			8	25	32.0 (14.9-53.5)		
BSHC	7	12	58.3 (27.7-84.8)			1	10	10.0 (0.3-44.5)		
BSA Total	87	201	43.3 (36.3-50.4)			38	92	41.3 (31.1-52.1)		
50-69 years										
BSWN	29	70	41.4 (29.8-53.8)	✓	ns	116	187	62.0 (54.7-69.0)	✓✓✓	*
BSCM	15	35	42.9 (26.3-60.6)	✓	ns	57	101	56.4 (46.2-66.3)	✓	ns
BSAL	21	35	60.0 (42.1-76.1)	✓	ns	57	103	55.3 (45.2-65.1)	✓	ns
BSM	12	34	35.3 (19.7-53.5)	✓	ns	103	180	57.2 (49.6-64.6)	✓	ns
BSCtoC	10	30	33.3 (17.3-52.8)	✓	ns	73	157	46.5 (38.5-54.6)	✓	ns
BSC	20	34	58.8 (40.7-75.4)	✓	ns	82	140	58.6 (49.9-66.8)	✓	ns
BSSL	2	17	11.8 (1.5-36.4)	×××	*	154	242	63.6 (57.2-69.7)	✓✓✓	*
BSHC	3	13	23.1 (5.0-53.8)	✓	ns	44	87	50.6 (39.6-61.5)	✓	ns
BSA Total	112	268	41.8 (35.8-47.9)	×××	*	686	1197	57.3 (54.5-60.1)	✓✓✓	*

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

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

	Initial					Subsequent				
	Invasive cancers <15 mm	Women screened	Rate per 10,000 (95%CI)			Invasive cancers <15 mm	Women screened	Rate per 10,000 (95%CI)		
45-49 years										
BSWN	15	10,111	14.8 (8.3-24.5)			10	6,910	14.5 (6.9-26.6)		
BSCM	4	6,027	6.6 (1.8-17.0)			3	2,748	10.9 (2.3-31.9)		
BSAL	11	4,915	22.4 (11.2-40.0)			2	3,272	6.1 (0.7-22.1)		
BSM	11	6,895	16.0 (8.0-28.5)			4	5,239	7.6 (2.1-19.5)		
BSCtoC	10	7,126	14.0 (6.7-25.8)			5	5,203	9.6 (3.1-22.4)		
BSC	11	5,643	19.5 (9.7-34.9)			5	4,581	10.9 (3.5-25.5)		
BSSL	18	11,081	16.2 (9.6-25.7)			8	12,780	6.3 (2.7-12.3)		
BSHC	7	4,411	15.9 (6.4-32.7)			1	3,070	3.3 (0.1-18.1)		
BSA Total	87	56,209	15.5 (12.4-19.1)			38	43,803	8.7 (6.1-11.9)		
50-69 years										
BSWN	29	7,659	37.9 (25.4-54.4)	✓	ns	116	41,015	28.3 (23.4-33.9)	✓✓✓	*
BSCM	15	4,563	32.9 (18.4-54.2)	✓	ns	57	20,347	28.0 (21.2-36.3)	✓✓✓	*
BSAL	21	3,630	57.9 (35.8-88.4)	✓✓✓	*	57	18,832	30.3 (22.9-39.2)	✓✓✓	*
BSM	12	4,831	24.8 (12.8-43.4)	✓	ns	103	40,238	25.6 (20.9-31.0)	✓✓✓	*
BSCtoC	10	4,758	21.0 (10.1-38.7)	✓	ns	73	36,778	19.8 (15.6-25.0)	✓	ns
BSC	20	3,522	56.8 (34.7-87.7)	✓✓✓	*	82	29,664	27.6 (22.0-34.3)	✓✓✓	*
BSSL	2	3,444	5.8 (0.7-21.0)	✗✗✗	*	154	63,577	24.2 (20.5-28.4)	✓✓✓	*
BSHC	3	2,117	14.2 (2.9-41.4)	✓	ns	44	22,395	19.6 (14.3-26.4)	✓	ns
BSA Total	112	34,524	32.4 (26.7-39.0)	✓	ns	686	272,846	25.1 (23.3-27.1)	✓✓✓	*

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
✓✓✓ 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 3c.1: Proportion invasive cancers <15mm, initial screens, 2 years
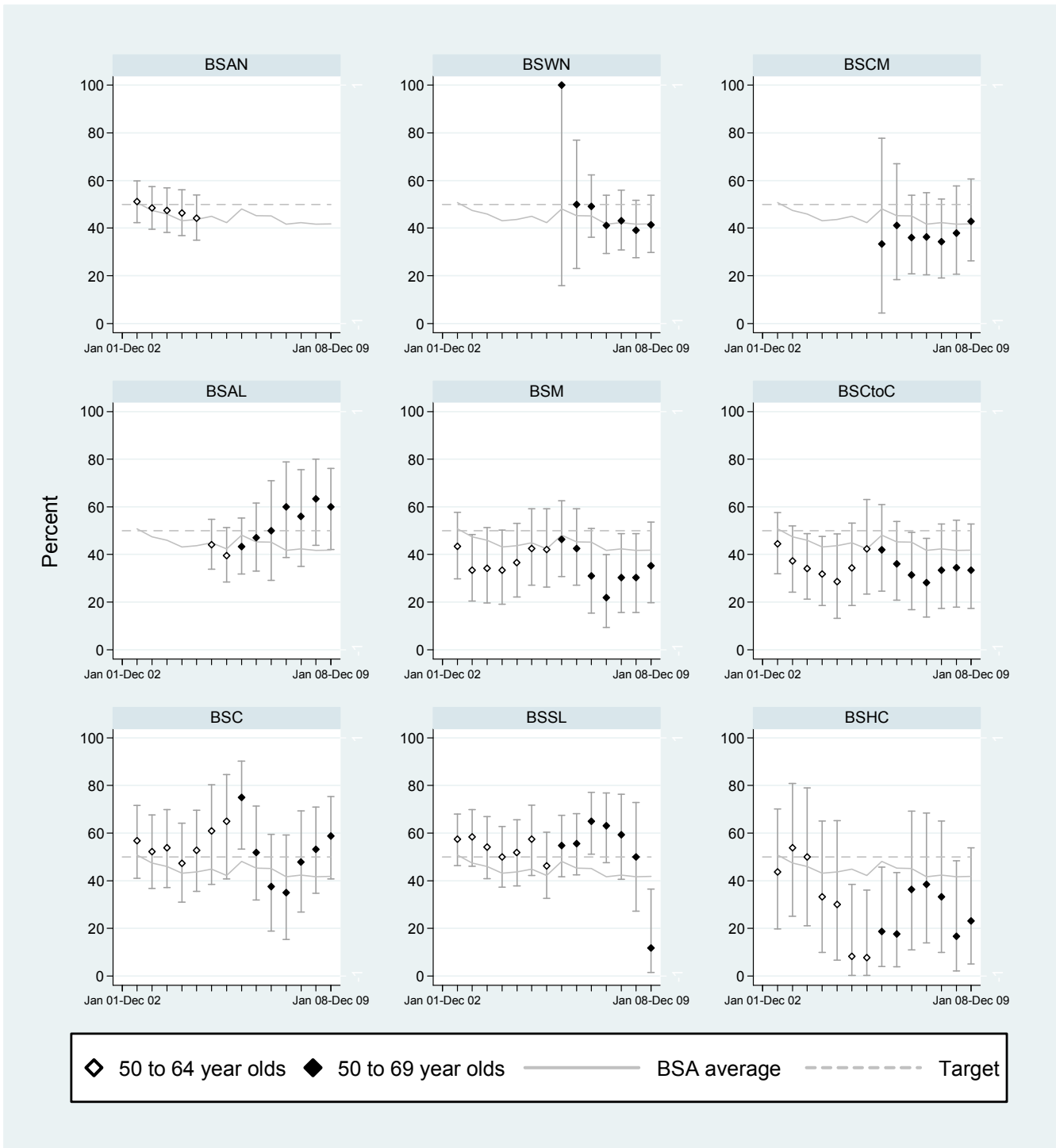
Figure 3c.1: Proportion invasive cancers <15mm, subsequent screens, 2 years
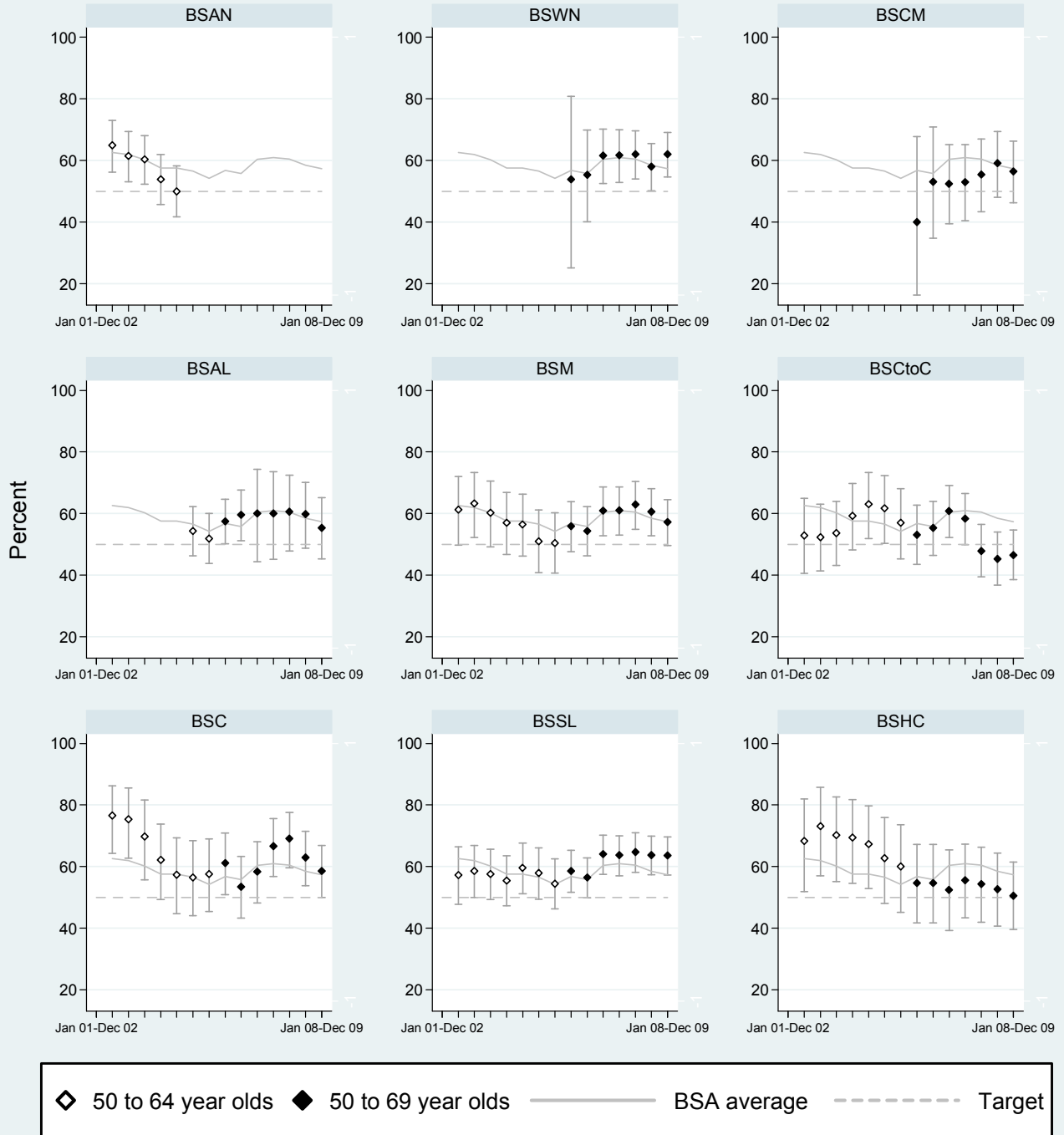
Figure 3c.2: Invasive cancers <15mm per 10,000 women screened, initial screens, 2 years
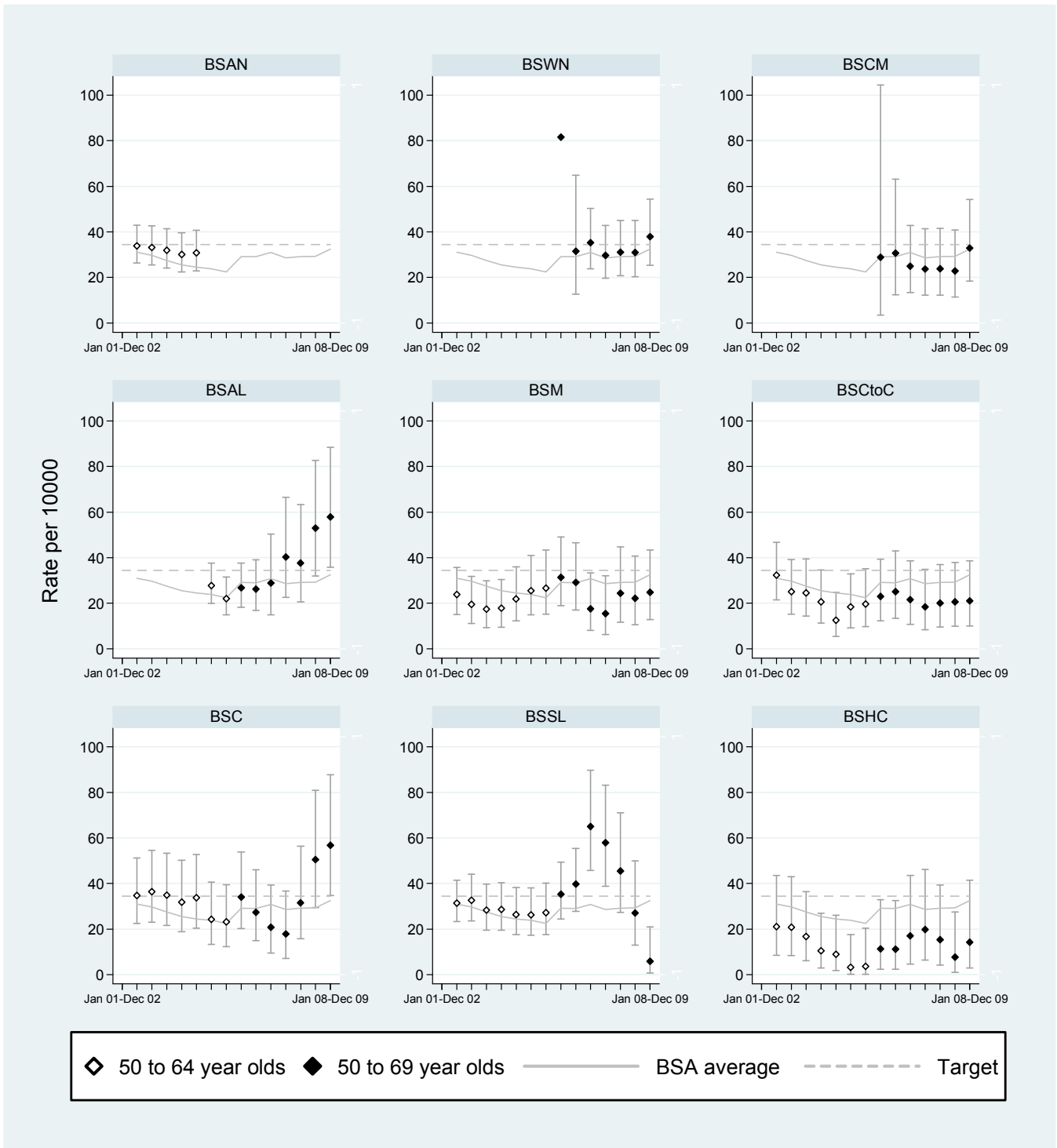
Note: 95%CI for BSWN estimate for Jan 05-Dec 06 is not shown to retain scale of 100 per 10,000 screened. Invasive cancer detection rate <15mm per 10,000 screens for Jan 05-Dec 06 for BSWN was 81.6 (95%CI 9.9- 294.9).

Figure 3c.2: Invasive cancers <15mm per 10,000 women screened, subsequent screens, 2 years
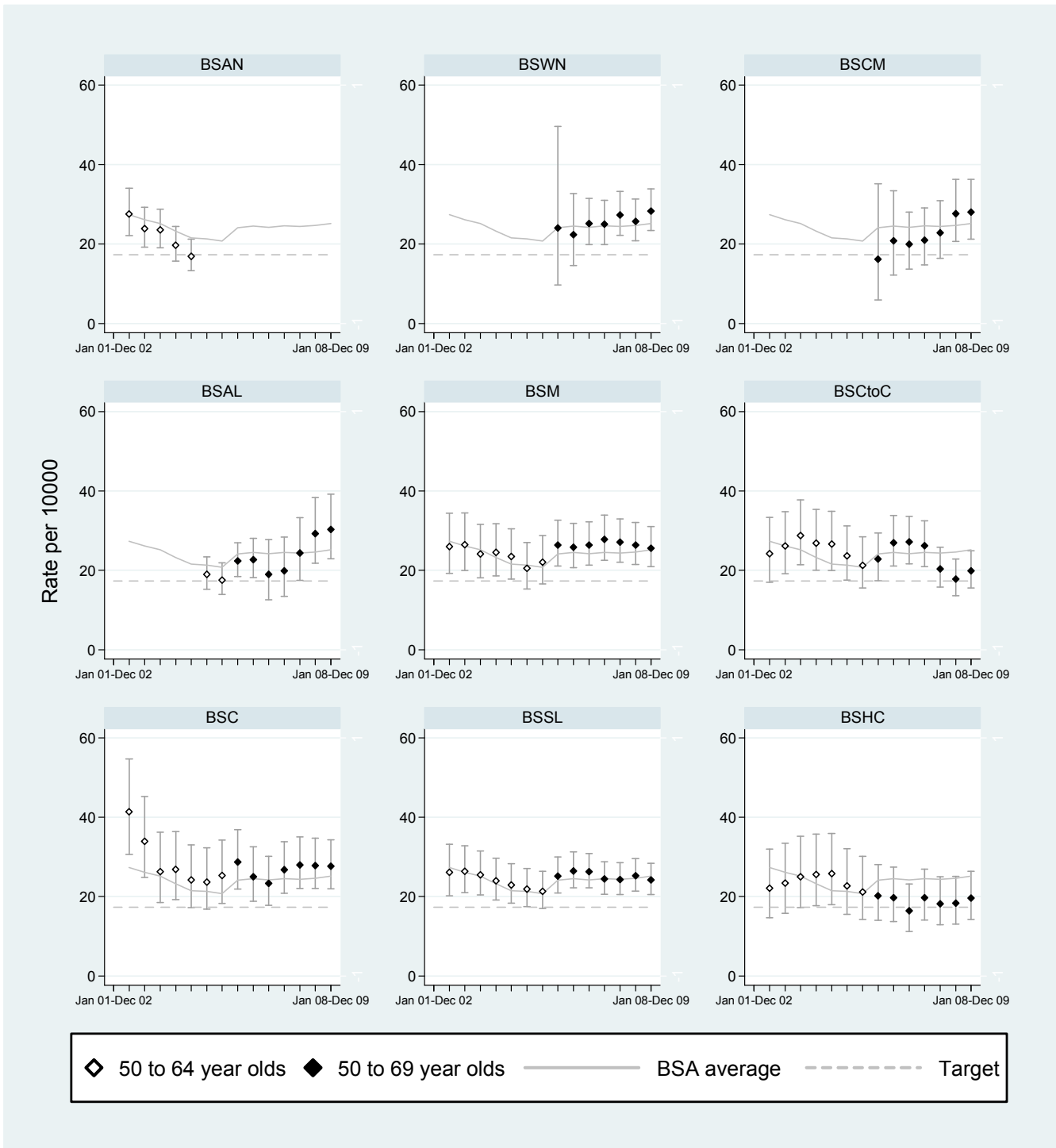
3.d. Nodal involvement

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

	Initial					Subsequent				
	Invasive cancers, node negative	Total invasive cancers	% (95%CI)			Invasive cancers, node negative	Total invasive cancers	% (95%CI)		
45-49 years										
BSWN	31	39	79.5 (63.5-90.7)			12	18	66.7 (41.0-86.7)		
BSCM	12	14	85.7 (57.2-98.2)			2	4	50.0 (6.8-93.2)		
BSAL	21	25	84.0 (63.9-95.5)			3	3	100.0 (29.2-100.0)		
BSM	18	22	81.8 (59.7-94.8)			10	13	76.9 (46.2-95.0)		
BSCtoC	17	27	63.0 (42.4-80.6)			5	8	62.5 (24.5-91.5)		
BSC	17	21	81.0 (58.1-94.6)			7	11	63.6 (30.8-89.1)		
BSSL	26	41	63.4 (46.9-77.9)			16	25	64.0 (42.5-82.0)		
BSHC	7	12	58.3 (27.7-84.8)			5	10	50.0 (18.7-81.3)		
BSA Total	149	201	74.1 (67.5-80.0)			60	92	65.2 (54.6-74.9)		
50-69 years										
BSWN	52	70	74.3 (62.4-84.0)	✓	ns	153	187	81.8 (75.5-87.1)	✓✓	*
BSCM	25	35	71.4 (53.7-85.4)	✓	ns	83	101	82.2 (73.3-89.1)	✓	ns
BSAL	30	35	85.7 (69.7-95.2)	✓	ns	81	103	78.6 (69.5-86.1)	✓	ns
BSM	25	34	73.5 (55.6-87.1)	✓	ns	158	180	87.8 (82.1-92.2)	✓✓✓	*
BSCtoC	21	30	70.0 (50.6-85.3)	✓	ns	111	157	70.7 (62.9-77.7)	✓	ns
BSC	27	34	79.4 (62.1-91.3)	✓	ns	105	140	75.0 (67.0-81.9)	✓	ns
BSSL	11	17	64.7 (38.3-85.8)	✓	ns	187	242	77.3 (71.5-82.4)	✓	ns
BSHC	10	13	76.9 (46.2-95.0)	✓	ns	60	87	69.0 (58.1-78.5)	✓	ns
BSA Total	201	268	75.0 (69.4-80.1)	✓	ns	938	1197	78.4 (75.9-80.7)	✓	*

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
✓✓✓ 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

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	27	84	32.1 (22.4-43.2)
BSCM	13	31	41.9 (24.5-60.9)
BSAL	20	48	41.7 (27.6-56.8)
BSM	21	56	37.5 (24.9-51.5)
BSCtoC	15	50	30.0 (17.9-44.6)
BSC	17	49	34.7 (21.7-49.6)
BSSL	23	89	25.8 (17.1-36.2)
BSHC	6	28	21.4 (8.3-41.0)
BSA Total	142	435	32.6 (28.3-37.3)
50-69 years			
BSWN	76	333	22.8 (18.4-27.7)
BSCM	35	171	20.5 (14.7-27.3)
BSAL	31	169	18.3 (12.8-25.0)
BSM	77	291	26.5 (21.5-31.9)
BSCtoC	38	225	16.9 (12.2-22.4)
BSC	56	230	24.3 (18.9-30.4)
BSSL	66	325	20.3 (16.1-25.1)
BSHC	16	116	13.8 (8.1-21.4)
BSA Total	395	1,860	21.2 (19.4-23.2)

Exact Binomial 95% confidence intervals presented

Figure 3e: Women with DCIS as a percentage of all screen detected cancers, 2 years
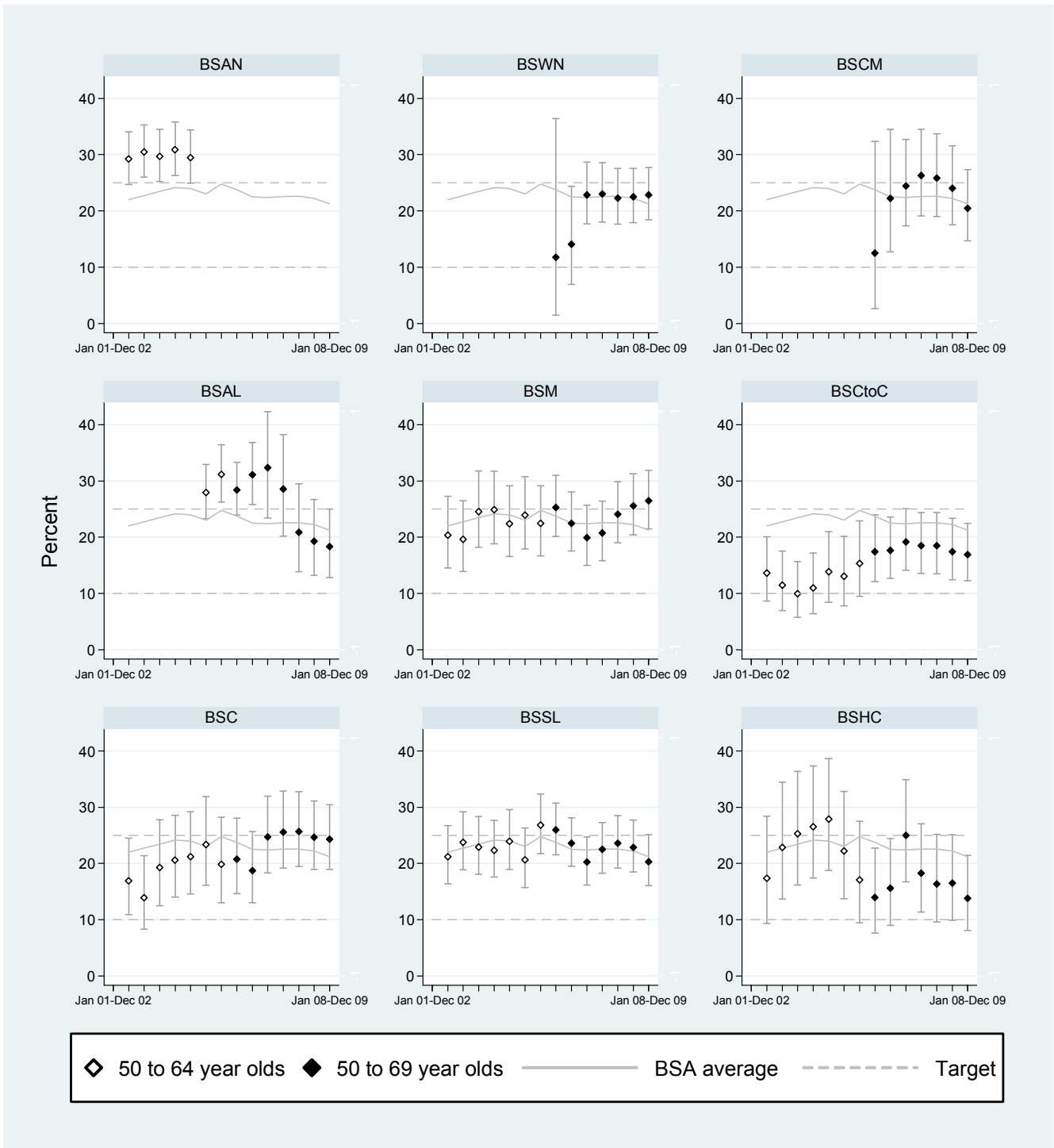
5. PROVISION OF AN APPROPRIATE AND ACCEPTABLE SERVICE

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:
≥ 90% notified within 10 working days (expected).
≥ 95% notified within 10 working days (desirable).

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

	6 months					2 years				
	Women notified within 10 working days	Women screened	% (95%CI)			Women notified within 10 working days	Women screened	% (95%CI)		
45-49 years										
BSWN	4,684	4,835	96.9 (96.3-97.3)			16,244	17,021	95.4 (95.1-95.7)		
BSCM	2,696	2,883	93.5 (92.6-94.4)			8,389	8,775	95.6 (95.2-96.0)		
BSAL	1,776	2,012	88.3 (86.8-89.6)			7,326	8,187	89.5 (88.8-90.1)		
BSM	3,378	3,603	93.8 (92.9-94.5)			10,830	12,134	89.3 (88.7-89.8)		
BSCtoC	3,517	3,566	98.6 (98.2-99.0)			12,162	12,329	98.6 (98.4-98.8)		
BSC	3,158	3,219	98.1 (97.6-98.5)			9,904	10,224	96.9 (96.5-97.2)		
BSSL	5,023	5,106	98.4 (98.0-98.7)			23,374	23,861	98.0 (97.8-98.1)		
BSHC	2,080	2,256	92.2 (91.0-93.3)			6,384	7,481	85.3 (84.5-86.1)		
BSA Total	26,312	27,480	95.7 (95.5-96.0)			94,613	100,012	94.6 (94.5-94.7)		
50-69 years										
BSWN	13,392	13,692	97.8 (97.5-98.0)	✓✓	*	47,110	48,674	96.8 (96.6-96.9)	✓✓	*
BSCM	6,568	6,997	93.9 (93.3-94.4)	✓	*	23,965	24,910	96.2 (96.0-96.4)	✓✓	*
BSAL	4,821	5,315	90.7 (89.9-91.5)	✓	ns	20,788	22,462	92.5 (92.2-92.9)	✓	*
BSM	11,532	12,131	95.1 (94.7-95.4)	✓✓	*	40,730	45,069	90.4 (90.1-90.6)	✓	*
BSCtoC	10,730	10,870	98.7 (98.5-98.9)	✓✓	*	40,979	41,536	98.7 (98.5-98.8)	✓✓	*
BSC	8,982	9,109	98.6 (98.3-98.8)	✓✓	*	32,412	33,186	97.7 (97.5-97.8)	✓✓	*
BSSL	17,398	17,635	98.7 (98.5-98.8)	✓✓	*	66,167	67,021	98.7 (98.6-98.8)	✓✓	*
BSHC	6,335	6,711	94.4 (93.8-94.9)	✓	*	22,268	24,512	90.8 (90.5-91.2)	✓	*
BSA Total	79,758	82,460	96.7 (96.6-96.8)	✓✓	*	294,419	307,370	95.8 (95.7-95.9)	✓✓	*

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

Figure 5a: Percentage of women notified of screening results within 10 working days, 6 months
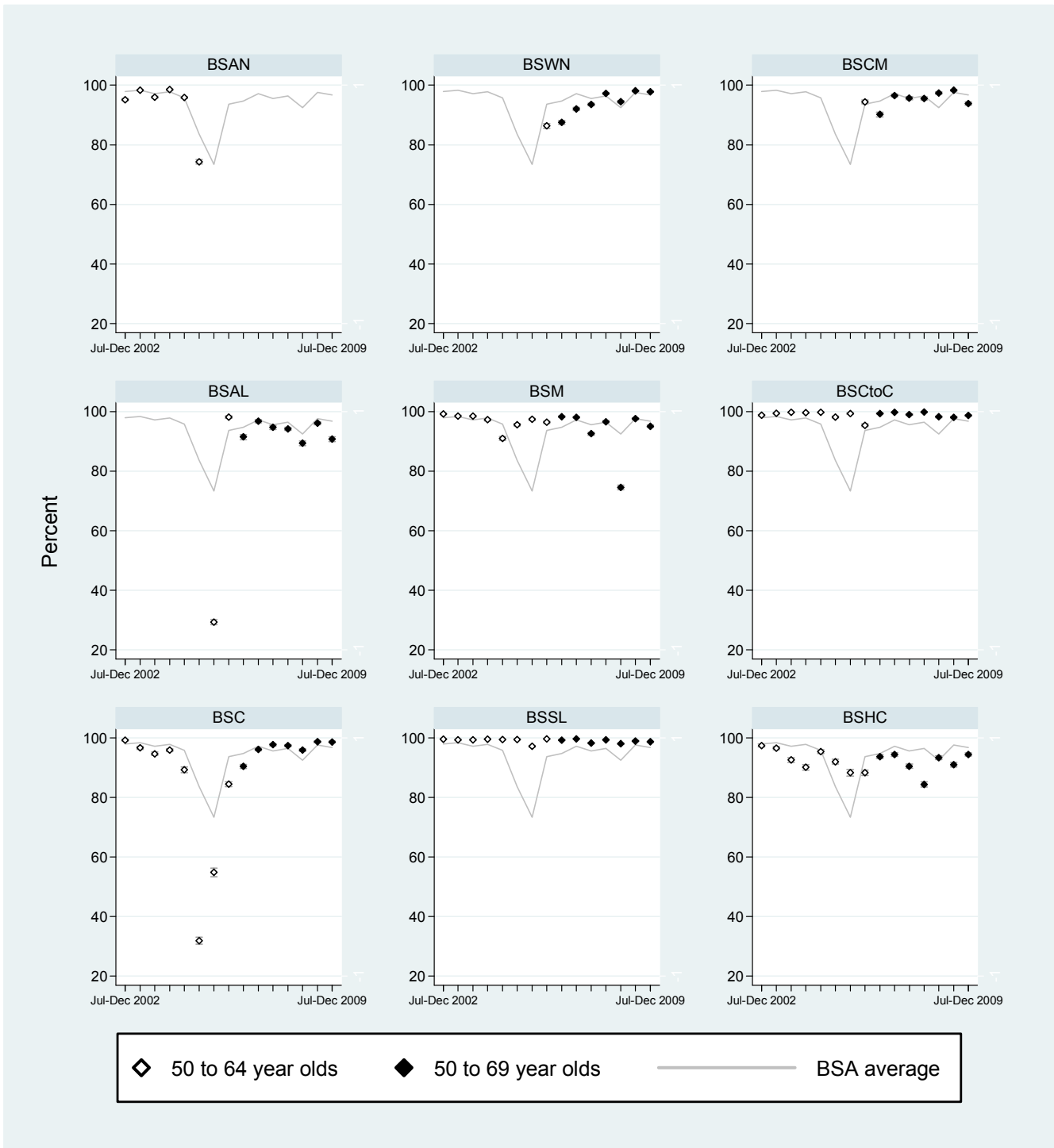
Figure 5a: Percentage of women notified of screening results within 10 working days, 2 years
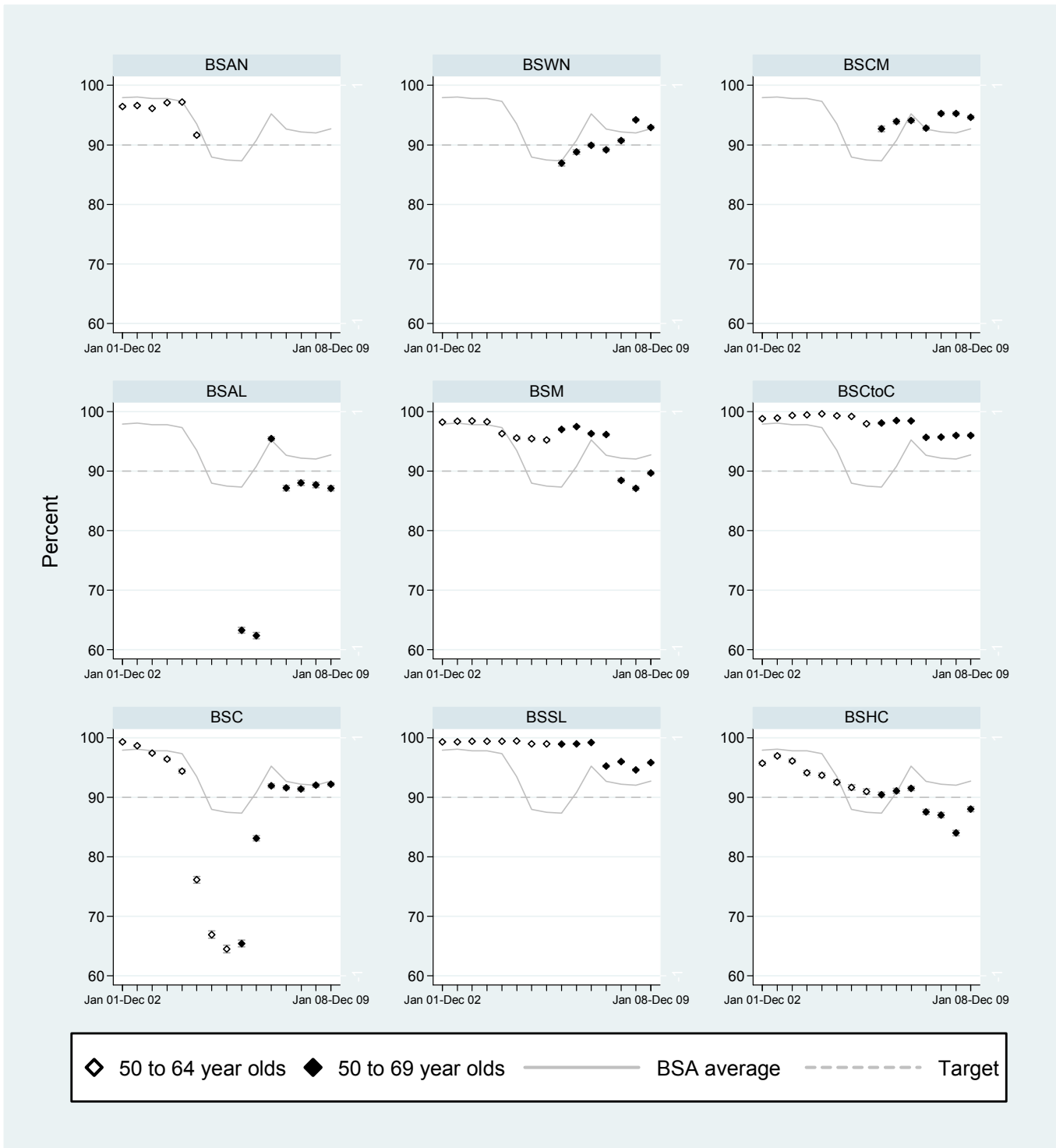
5.b. Time taken from screening visit to first offer of an assessment

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 months					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	320	352	90.9 (87.4-93.7)			1,074	1,314	81.7 (79.5-83.8)		
BSCM	204	232	87.9 (83.0-91.8)			605	719	84.1 (81.3-86.7)		
BSAL	96	143	67.1 (58.8-74.8)			420	601	69.9 (66.0-73.5)		
BSM	250	284	88.0 (83.7-91.6)			821	969	84.7 (82.3-86.9)		
BSCtoC	135	157	86.0 (79.6-91.0)			553	601	92.0 (89.6-94.1)		
BSC	252	270	93.3 (89.7-96.0)			769	822	93.6 (91.7-95.1)		
BSSL	243	252	96.4 (93.3-98.4)			1,247	1,316	94.8 (93.4-95.9)		
BSHC	72	117	61.5 (52.1-70.4)			264	733	36.0 (32.5-39.6)		
BSA Total	1,572	1,807	87.0 (85.4-88.5)			5,753	7,075	81.3 (80.4-82.2)		
50-69 years										
BSWN	487	522	93.3 (90.8-95.3)	✓	*	1,769	2,164	81.7 (80.1-83.4)	××	*
BSCM	261	305	85.6 (81.1-89.3)	✓	*	902	1,116	80.8 (78.4-83.1)	×××	*
BSAL	151	232	65.1 (58.6-71.2)	×××	*	695	973	71.4 (68.5-74.3)	×××	*
BSM	470	519	90.6 (87.7-92.9)	✓	ns	1,654	1,975	83.7 (82.0-85.3)	××	*
BSCtoC	217	245	88.6 (83.9-92.3)	✓	ns	940	1,001	93.9 (92.2-95.3)	✓	*
BSC	394	419	94.0 (91.3-96.1)	✓	*	1,414	1,519	93.1 (91.7-94.3)	✓	*
BSSL	437	466	93.8 (91.2-95.8)	✓	*	1,833	1,954	93.8 (92.6-94.8)	✓	*
BSHC	113	174	64.9 (57.4-72.0)	×××	*	356	898	39.6 (36.4-42.9)	×××	*
BSA Total	2,530	2,882	87.8 (86.5-89.0)	✓	*	9,563	11,600	82.4 (81.7-83.1)	××	*

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

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✓✓✓ 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 5b: Percentage of women offered first assessment appointment within 15 working days, 6 months.
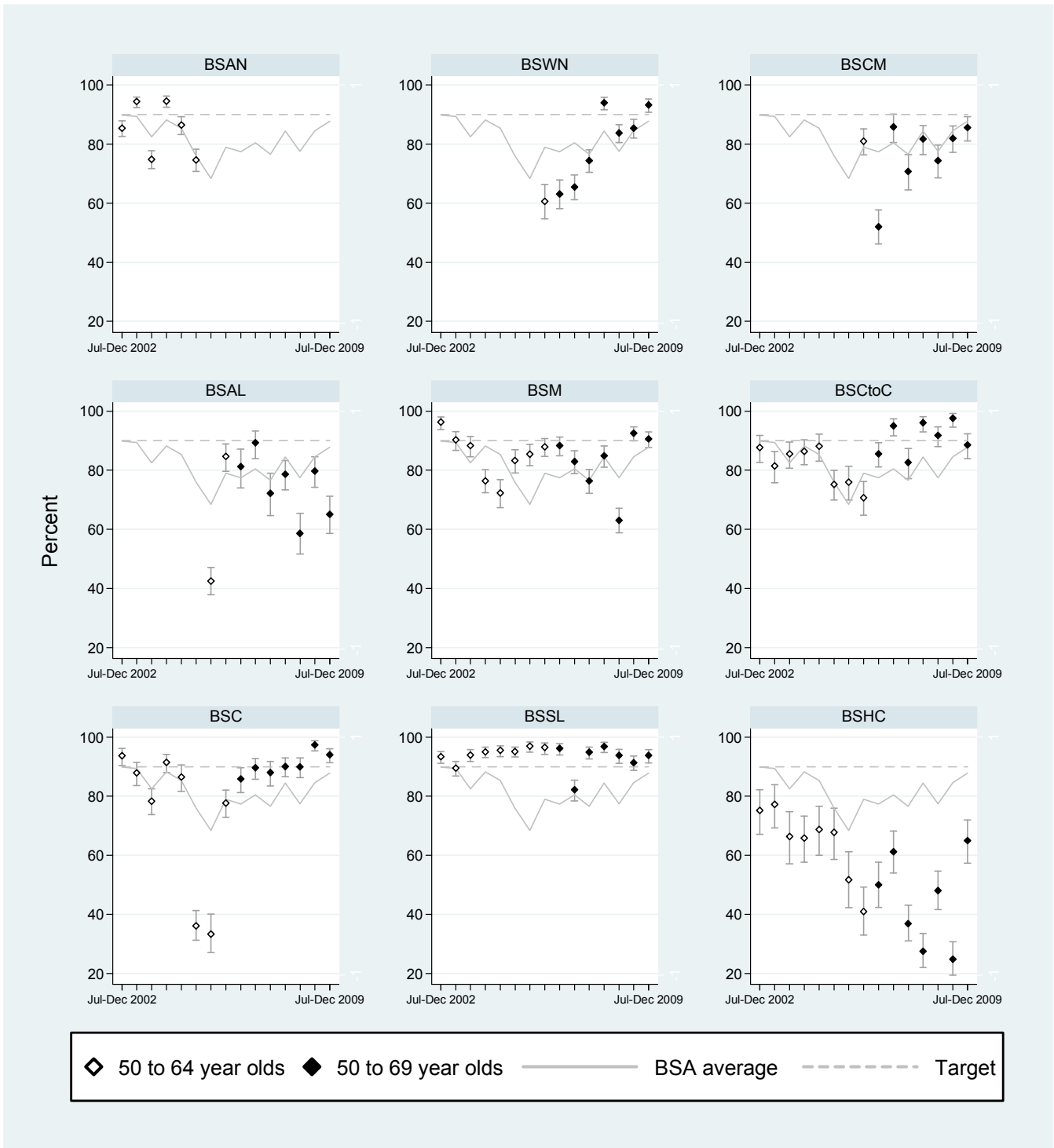
Figure 5b: Percentage of women offered first assessment appointment within 15 working days, 2 years
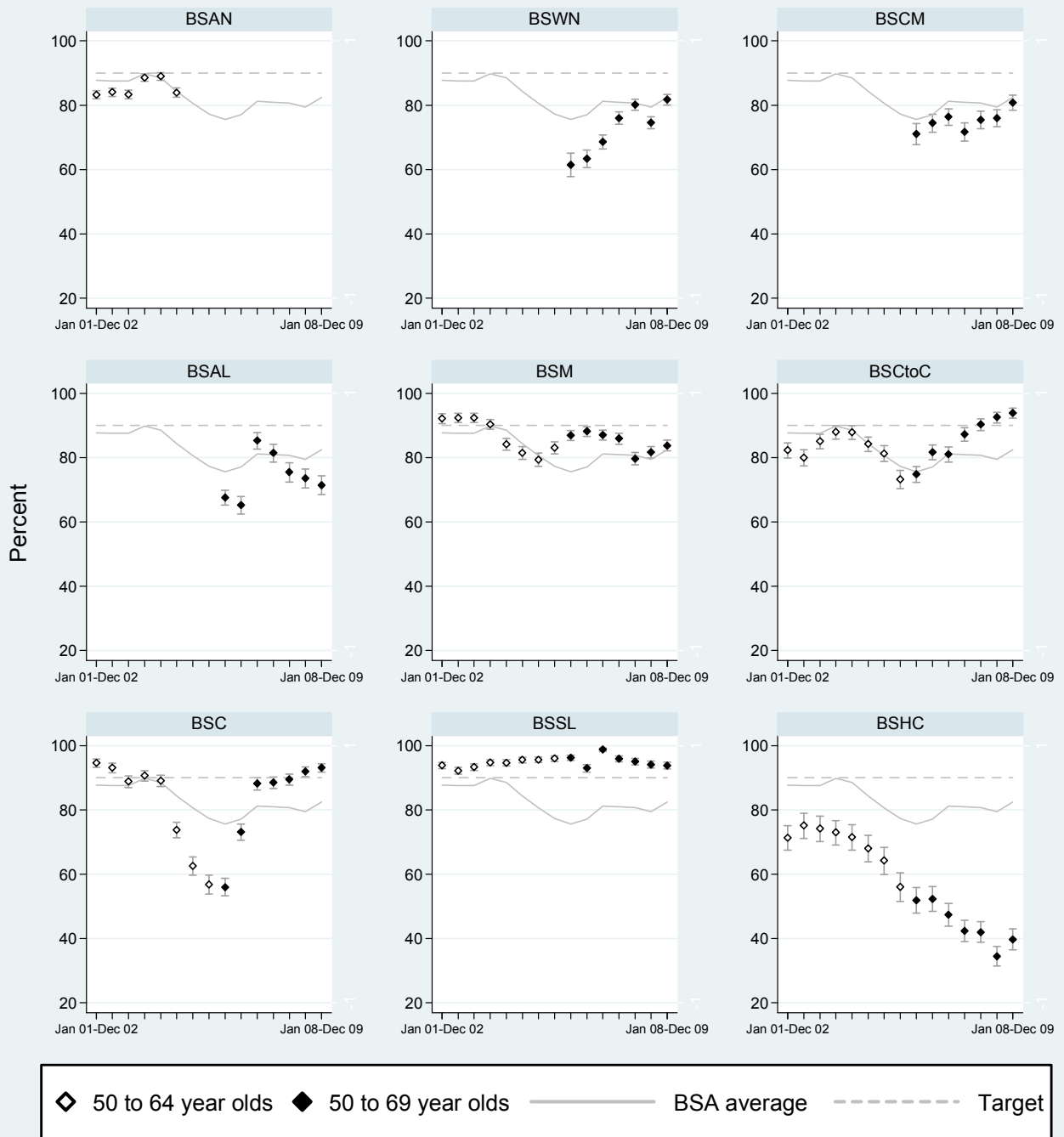
5.c. Time taken from assessment to final diagnostic biopsy

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 20 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 months					2 years				
	Needle biopsies within 5 working days of assessment	Total needle biopsies	% (95%CI)			Needle biopsies within 5 working days of assessment	Total needle biopsies	% (95%CI)		
45-49 years										
BSWN	96	99	97.0 (91.4-99.4)			386	394	98.0 (96.0-99.1)		
BSCM	77	90	85.6 (76.6-92.1)			239	278	86.0 (81.3-89.8)		
BSAL	42	49	85.7 (72.8-94.1)			179	219	81.7 (76.0-86.6)		
BSM	61	73	83.6 (73.0-91.2)			215	271	79.3 (74.0-84.0)		
BSCtoC	43	44	97.7 (88.0-99.9)			171	175	97.7 (94.3-99.4)		
BSC	50	54	92.6 (82.1-97.9)			151	162	93.2 (88.2-96.6)		
BSSL	57	63	90.5 (80.4-96.4)			290	327	88.7 (84.7-91.9)		
BSHC	20	21	95.2 (76.2-99.9)			134	141	95.0 (90.0-98.0)		
BSA Total	446	493	90.5 (87.5-92.9)			1,765	1,967	89.7 (88.3-91.0)		
50-69 years										
BSWN	164	164	100.0 (97.8-100.0)	✓✓✓	*	723	735	98.4 (97.2-99.2)	✓✓	*
BSCM	98	119	82.4 (74.3-88.7)	✗✗	*	374	455	82.2 (78.4-85.6)	✗✗	*
BSAL	93	107	86.9 (79.0-92.7)	✓	ns	370	429	86.2 (82.6-89.4)	✓	*
BSM	142	171	83.0 (76.6-88.3)	✗✗	*	533	645	82.6 (79.5-85.5)	✗✗	*
BSCtoC	89	90	98.9 (94.0-100.0)	✓✓	*	393	402	97.8 (95.8-99.0)	✓✓	*
BSC	114	120	95.0 (89.4-98.1)	✓	ns	395	421	93.8 (91.1-95.9)	✓	*
BSSL	117	135	86.7 (79.7-91.9)	✓	ns	507	586	86.5 (83.5-89.2)	✓	*
BSHC	47	50	94.0 (83.5-98.7)	✓	ns	200	224	89.3 (84.5-93.0)	✓	ns
BSA Total	864	956	90.4 (88.3-92.2)	✓	ns	3,495	3,897	89.7 (88.7-90.6)	✓	ns

Exact Binomial 95% confidence intervals presented
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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 5c1: Proportion of women having a needle biopsy procedure within 5 working days, 2 years
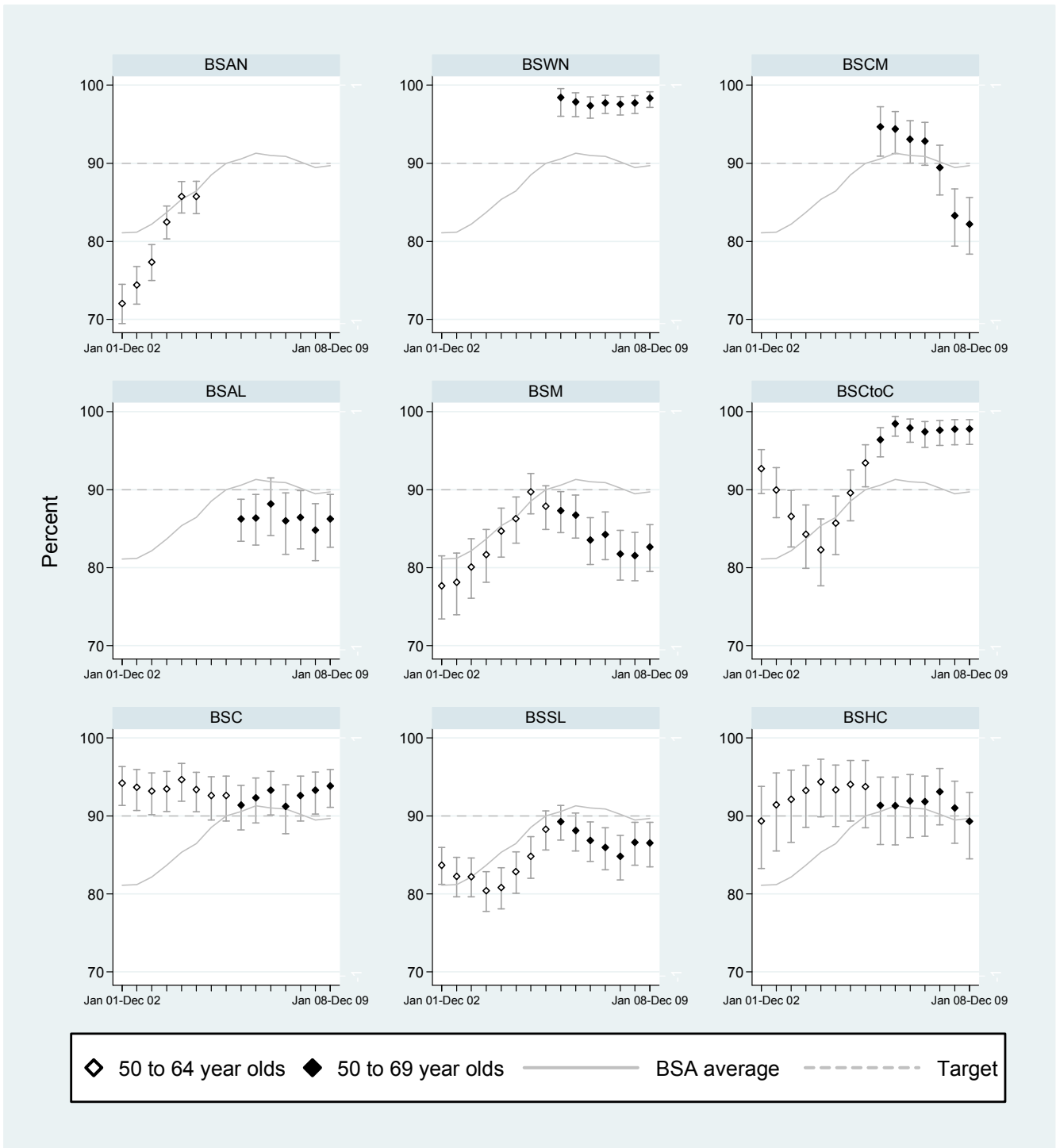
5.c.2. Women having Open Biopsy within 20 working days

At least 90% of women requiring open biopsy should have this performed within 20 working days of being notified of the need for this operation.

This indicator has been changed from 'within 15 working days' to 'within 20 working days'. This change reflects the BSA Advisory Group recommendation that the NSU change the target to 20 days to be 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.

Table 5c.2: Proportion of women having an open biopsy procedure within 20 working days

	6 months			2 years				
	Open biopsies within 20 working days of notification	Total open biopsies	% (95%CI)	Open biopsies within 20 working days of notification	Total open biopsies	% (95%CI)		
45-49 years								
BSWN	10	16		39	59	66.1 (52.6-77.9)		
BSCM	2	4		13	15	86.7 (59.5-98.3)		
BSAL	4	5		22	24	91.7 (73.0-99.0)		
BSM	8	12		17	27	63.0 (42.4-80.6)		
BSCtoC	3	5		5	11	45.5 (16.7-76.6)		
BSC	4	6		10	15	66.7 (38.4-88.2)		
BSSL	7	8		17	18	94.4 (72.7-99.9)		
BSHC	3	3		12	15	80.0 (51.9-95.7)		
BSA Total	41	59	69.5 (56.1-80.8)	135	184	73.4 (66.4-79.6)		
50-69 years								
BSWN	9	13		42	66	63.6 (50.9-75.1)	✗✗✗	*
BSCM	12	14		33	36	91.7 (77.5-98.2)	✓	ns
BSAL	6	9		25	30	83.3 (65.3-94.4)	✓	ns
BSM	14	20		27	56	48.2 (34.7-62.0)	✗✗✗	*
BSCtoC	0	2		5	18	27.8 (9.7-53.5)	✗✗✗	*
BSC	5	8		15	20	75.0 (50.9-91.3)	✓	ns
BSSL	4	5		23	26	88.5 (69.8-97.6)	✓	ns
BSHC	4	6		14	18	77.8 (52.4-93.6)	✓	ns
BSA Total	54	77	70.1 (58.6-80.0) ✗✗✗ *	184	270	68.1 (62.2-73.7)	✗✗✗	*

Note: 6 monthly proportions for Lead Providers not shown due to small numbers.
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 ≥ 5-9% magnitude worse than target value and statistically significant
xxx Difference of ≥ 10% magnitude worse than target value and statistically significant

Figure 5c2: Proportion of women having an open biopsy procedure within 20 working days, 2 years*
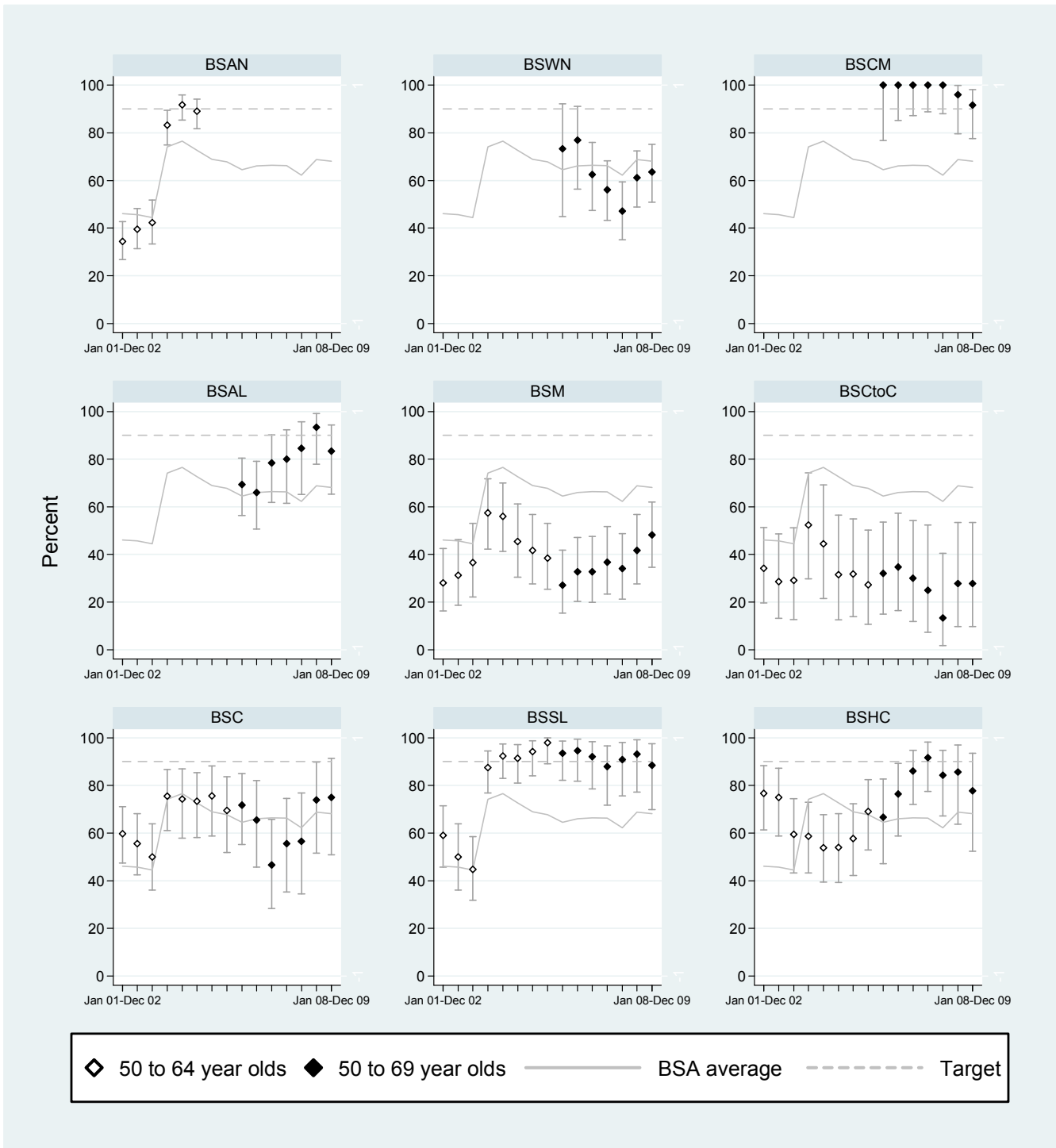
*Note: Data from the Jul 07- Jun09 biennium onwards is comprised of data based on open biopsy procedures within 20 working days, and reflects the BSA Advisory Group change in this indicator from 'within 15 working days' to 'within 20 working days'

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 women receiving final diagnostic biopsy results within 5 working days

	6 months					2 years				
	Results reported within 5 working days of final biopsy	Number with final diagnostic biopsy	% (95%CI)			Results reported within 5 working days of final biopsy	Number with final diagnostic biopsy	% (95%CI)		
45-49 years										
BSWN	93	110	84.5 (76.4-90.7)			346	428	80.8 (76.8-84.5)		
BSCM	76	90	84.4 (75.3-91.2)			244	278	87.8 (83.3-91.4)		
BSAL	40	53	75.5 (61.7-86.2)			194	235	82.6 (77.1-87.2)		
BSM	54	76	71.1 (59.5-80.9)			202	274	73.7 (68.1-78.8)		
BSCtoC	32	43	74.4 (58.8-86.5)			156	181	86.2 (80.3-90.9)		
BSC	53	56	94.6 (85.1-98.9)			151	165	91.5 (86.2-95.3)		
BSSL	59	63	93.7 (84.5-98.2)			307	330	93.0 (89.7-95.5)		
BSHC	17	22	77.3 (54.6-92.2)			133	152	87.5 (81.2-92.3)		
BSA Total	424	513	82.7 (79.1-85.8)			1,733	2,043	84.8 (83.2-86.4)		
BSWN	147	168	87.5 (81.5-92.1)	✓	ns	647	773	83.7 (80.9-86.2)	✗✗	*
BSCM	106	121	87.6 (80.4-92.9)	✓	ns	414	462	89.6 (86.5-92.2)	✓	ns
BSAL	94	113	83.2 (75.0-89.6)	✗✗	*	389	446	87.2 (83.8-90.2)	✓	ns
BSM	139	172	80.8 (74.1-86.4)	✗✗✗	*	509	652	78.1 (74.7-81.2)	✗✗✗	*
BSCtoC	83	92	90.2 (82.2-95.4)	✓	ns	366	408	89.7 (86.3-92.5)	✓	ns
BSC	110	122	90.2 (83.4-94.8)	✓	ns	390	431	90.5 (87.3-93.1)	✓	ns
BSSL	119	136	87.5 (80.7-92.5)	✓	ns	542	600	90.3 (87.7-92.6)	✓	ns
BSHC	45	50	90.0 (78.2-96.7)	✓	ns	213	234	91.0 (86.6-94.4)	✓	ns
BSA Total	843	974	86.6 (84.2-88.6)	✓	*	3,470	4,006	86.6 (85.5-87.7)	✓	*

Exact Binomial 95% confidence intervals presented

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✓ 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 5d: Percentage of women receiving final diagnostic biopsy results within 5 working days, 2 years
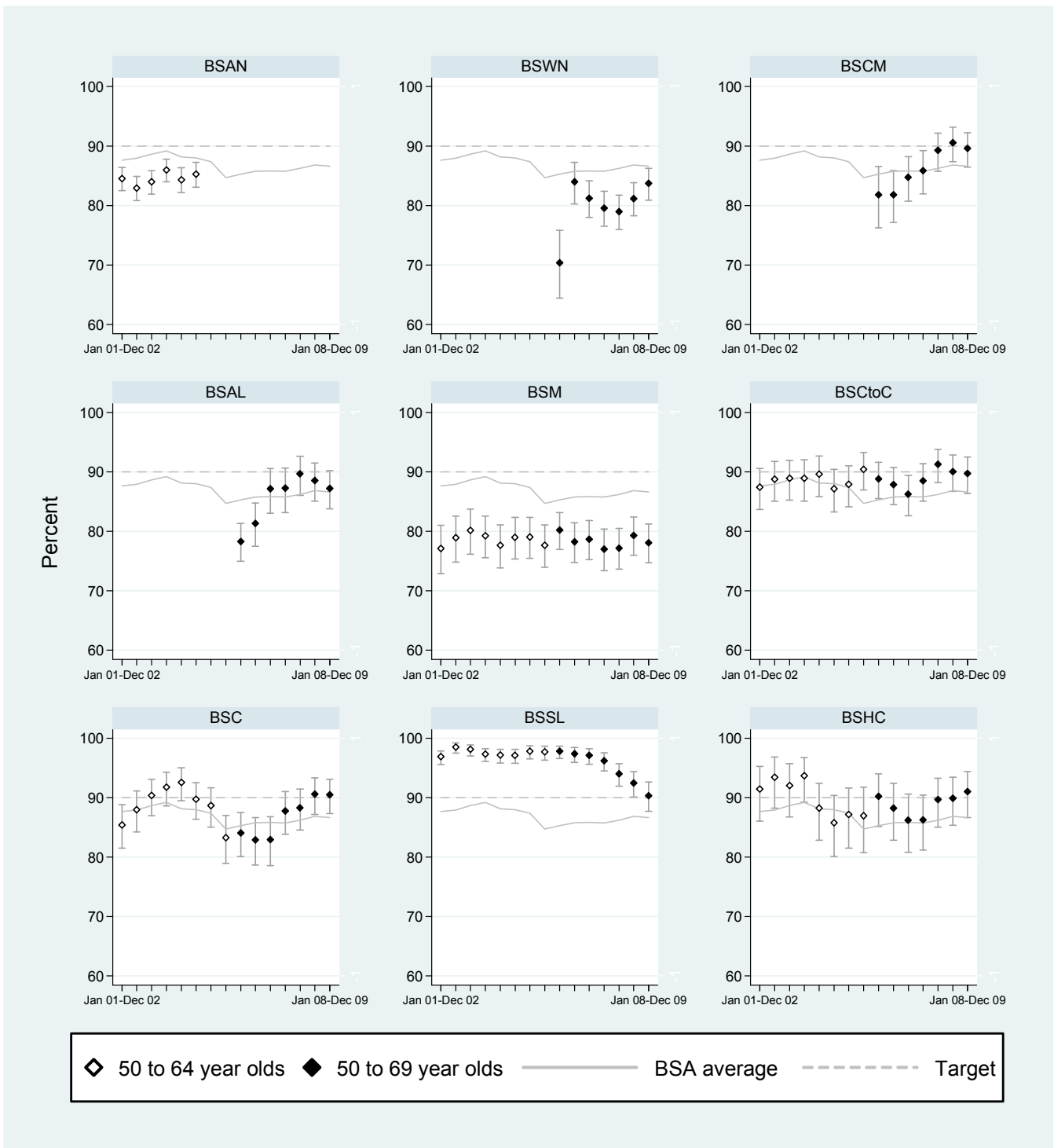
APPENDIX A: POPULATION DENOMINATORS BY AGE-GROUP

Year	Lead Provider	Reporting period	Annual Census projection estimates						Smoothed 6 monthly population estimates					
			45-49	50-54	55-59	60-64	65-69	50-69*	45-49	50-54	55-59	60-64	65-69	50-69*
2009	BSWN	Jul-Dec, 2010	27185	23560	20155	18030	13840	75585	27185	23560	20155	18030	13840	75585
2009	BSWN	Jan-Jun, 2009	26840	22575	19765	17310	13255	72905	27203	22980	19820	17883	13378	74060
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
2009	BSAL	Jul-Dec, 2010	17090	14040	11660	9450	6880	42030	17090	14040	11660	9450	6880	42030
2009	BSAL	Jan-Jun, 2009	16690	13620	11240	9030	6760	40650	17065	13785	11325	9375	6795	41280
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
2009	BSCM	Jul-Dec, 2010	16900	14215	12230	10610	8005	45060	16900	14215	12230	10610	8005	45060
2009	BSCM	Jan-Jun, 2009	16580	13655	11980	10175	7680	43490	16888	13845	12060	10520	7775	44200
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
2009	BSM	Jul-Dec, 2010	24930	22690	19720	17545	14285	74240	24930	22690	19720	17545	14285	74240
2009	BSM	Jan-Jun, 2009	24770	22125	19195	16860	13880	72060	25013	22488	19320	17340	13980	73128
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

Year	Lead Provider	Reporting period	Annual Census projection estimates						Smoothed 6 monthly population estimates					
			45-49	50-54	55-59	60-64	65-69	50-69*	45-49	50-54	55-59	60-64	65-69	50-69*
2009	BSCtoC	Jul-Dec, 2010	20795	18765	16520	14605	11865	61755	20795	18765	16520	14605	11865	61755
2009	BSCtoC	Jan-Jun, 2009	20885	18320	16255	14005	11685	60265	21065	18498	16305	14398	11745	60945
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
2009	BSC	Jul-Dec, 2010	18560	15205	13110	11755	8810	48880	18560	15205	13110	11755	8810	48880
2009	BSC	Jan-Jun, 2009	18125	14855	13075	11145	8650	47725	18415	15020	13038	11550	8728	48335
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
2009	BSSL	Jul-Dec, 2010	27600	25185	22370	20145	15380	83080	27600	25185	22370	20145	15380	83080
2009	BSSL	Jan-Jun, 2009	27320	24460	22175	19025	14995	80655	27503	24768	22240	19700	15103	81810
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

*Note: age 45-69 year populations are presented from Jul-Dec 2006, following programme age extension. For previous 6 month periods 50-64 year populations are presented.

			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*
2009	BSHC	Jul-Dec, 2010	11285	10125	8690	7950	6275	33040	11285	10125	8690	7950	6275	33040
2009	BSHC	Jan-Jun, 2009	11255	9840	8690	7545	6250	32325	11293	9993	8653	7790	6258	32693
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
2009	BSA Total	Jul-Dec, 2010	164345	143785	124455	110090	85340	463670	16434	143785	124455	11009	85340	463670
2009	BSA Total	Jan-Jun, 2009	162465	139450	122375	105095	83155	450075	16444	141375	122760	10855	83760	456450
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

*Note: age 45-69 year populations are presented from Jul-Dec 2006, following programme age extension. For previous 6 month periods 50-64 year populations are presented.

APPENDIX B: POPULATION DENOMINATORS BY ETHNIC GROUP

Year	Lead Provider	Report period	Annual Census projection estimates						Smoothed 6 monthly population estimates					
			45-49			50-69*			45-49			50-69*		
			Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other
2009	BSWN	Jul-Dec, 2009	3460	1265	22460	7080	2745	65760	3460	1265	22460	7080	2745	65760
2009	BSWN	Jan-Jun, 2009	3400	1210	22230	6670	2585	63650	3500	1243	22460	6790	2655	64615
2008	BSWN	Jul-Dec, 2008	3400	1210	22230	6670	2585	63650	3400	1210	22230	6670	2585	63650
2008	BSWN	Jan-Jun, 2008	3200	1145	21770	6430	2445	61720	3300	1178	22000	6550	2515	62685
2007	BSWN	Jul-Dec, 2007	3200	1145	21770	6430	2445	61720	3200	1145	21770	6430	2445	61720
2007	BSWN	Jan-Jun,2007	3020	1080	21160	6180	2305	59850	3110	1113	21465	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				8730	3195	78490				8730	3195	78490
2009	BSAL	Jul-Dec, 2009	1160	1730	14200	2670	3660	35700	1160	1730	14200	2670	3660	35700
2009	BSAL	Jan-Jun, 2009	1160	1710	13820	2560	3550	34540	1190	1750	3600	2615	3600	35065
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
2009	BSCM	Jul-Dec, 2009	2450	2790	11660	4960	6100	34000	2450	2790	11660	4960	6100	34000
2009	BSCM	Jan-Jun, 2009	2350	2670	11560	4750	5800	32940	2415	2743	11730	4850	5945	33405
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

*Note: age 45-69 year populations are presented from Jul-Dec 2006, following programme age extension. For previous 6 month periods 50-64 year populations are presented.

Year	Lead Provider	Report period	Annual Census projection estimates						Smoothed 6 monthly population estimates					
			45-49			50-69*			45-49			50-69*		
			Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other
2009	BSM	Jul-Dec, 2009	5380	360	19190	11670	790	61780	5380	360	19190	11670	790	61780
2009	BSM	Jan-Jun, 2009	5230	310	19230	11140	750	60170	5340	293	19380	11400	768	60960
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
2009	BSCtoC	Jul-Dec, 2009	4135	325	16335	8665	620	52470	4135	325	16335	8665	620	52470
2009	BSCtoC	Jan-Jun, 2009	4075	310	16500	8270	635	51360	4190	310	16565	8400	658	51888
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
2009	BSC	Jul-Dec, 2009	2010	1040	15510	3860	2430	42590	2010	1040	15510	3860	2430	42590
2009	BSC	Jan-Jun, 2009	2015	970	15140	3640	2385	41700	2070	990	15355	3725	2435	42175
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

Year	Lead Provider	Report period	Annual Census projection estimates						Smoothed 6 monthly population estimates					
			45-49			50-69*			45-49			50-69*		
			Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other	Maori	Pacific	Other
2009	BSSL	Jul-Dec, 2009	1620	340	25640	3295	585	79200	1620	340	25640	3295	585	79200
2009	BSSL	Jan-Jun, 2009	1545	305	25470	3070	565	77020	1565	318	25620	3175	575	78060
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
2002	BSSL	Jul-Dec, 2002				2110	365	51645				2110	365	51645
2009	BSHC	Jul-Dec, 2009	745	70	10470	1350	180	31510	745	70	10470	1350	180	31510
2009	BSHC	Jan-Jun, 2009	720	75	10460	1315	150	30860	745	73	10475	1360	153	31180
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
2009	BSA Total	Jul-Dec, 2009	20960	7920	135465	43550	17110	403010	20960	7920	135465	43550	17110	403010
2009	BSA Total	Jan-Jun, 2009	20495	7560	134410	41415	16420	392240	21015	7718	135710	42315	16788	397348
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

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BSA Screening and Assessment Report - Women screened January 2008-December 2009

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 in instances where lesions are benign.

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.

Smoothed 6 monthly population estimates
Populations for 6 month periods are estimated by averaging populations from the preceding, current and succeeding calendar year in order to provide more accurate population denominators for 6 monthly periods (and multiples of these) for use in calculations of population rates, such as coverage.

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