# BREASTSCREEN AOTEAROA

# INDEPENDENT MONITORING REPORT:

## TREATMENT OF WOMEN WITH BSA DETECTED CANCERS

## (WOMEN SCREENED JANUARY 2006-DECEMBER 2007)

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## EXECUTIVE SUMMARY

This report presents cross-sectional data for the 2 year period January 2006 -December 2007 and trend data from programme inception to December 2007 for BreastScreen Aotearoa treatment indicators. Screening and assessment 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. For the period covered in this report data relating to women aged 50-69 years are presented. Trend data for key indicators are presented for women aged 50-64 years, however, a times-series has also been established for this aggregated target age group of women aged 50-69 years in the period following age extension. Some indicators in this report have 'expected' and 'desirable' targets. In the text of this Executive Summary quoted targets relate to 'expected' target values.

Treatment of women with BSA detected cancers is not carried out by BSA Lead Providers. Surgery is performed by 21 District Health Board (DHB) Services and private providers. Oncology services are provided by 6 Cancer Treatment Centres and private providers.

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

*DCIS*

The proportion of DCIS of all cancers (invasive and DCIS) for this age group over the biennium was 22.7% (target range 10-25%).

*Invasive cancer detection rate*

The BSA biennial invasive cancer detection for women aged 50-69 years was 6.9 per 1,000 women screened for initial screens (achieving the target of ≥ 6.1 per 1,000), and 4.1 per 1,000 for subsequent screens (achieving the target of ≥ 3.45 per 1,000). This represented 1,219 invasive cancers detected by BSA for the 2-year period. The overall proportion of node negative cancers (of all invasive cancers) was 72.1% for initial screens and 79.8% for subsequent screens.

For women 50-69 years the overall proportion of screen detected invasive cancers ≤10mm in size for the 2-year period was 28.2% for initial screens and 39.3% for subsequent screens. The corresponding detection rates per 10,000 women screened for invasive cancers ≤10mm were above the target at 19.6 for initial screens (target ≥ 15.2 per 10,000 screens) and 16.1 for subsequent screens (target ≥ 10.45 per 10,000 screens).

For women 50-69 years the overall proportion of screen detected invasive cancers <15mm in size for the 2-year period was 44.6% for initial screens and 60.1% for subsequent screens. The corresponding detection rates per 10,000 women screened for invasive cancers <15mm were above the target at 31.0 for initial screens (target >30.5 per 10,000 screens) and 24.6 for subsequent screens (target ≥ 17.3 per 10,000 screens).

### 2. Treatment

Target values were exceeded for DCIS cases and for invasive cases ≤ 20 mm having breast conserving surgery (BCS). The overall proportion of screen detected DCIS having BCS was 83.9%, and for invasive cancers having BCS was 75.7%, both of which were greater than the target value of >50%.

The overall proportion of invasive cancers having a surgical axillary procedure was 97.8%, which was on target (target value of 95%). The overall proportion of women who had surgery for DCIS, who did not have an axillary dissection, was 97.7%, which was also on target (target value 95%).

The overall proportion of women diagnosed with invasive cancer, who had breast conserving surgery (BCS), and went on to have radiotherapy, was 96.4%, which was on target (target value of ≥ 95%).

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

There is only one indicator in this section of the treatment report. The overall proportion of women receiving first surgical treatment within 20 workings days was below the target value of 90%. The biennial estimate for women 50-

[1] Page A, Arnett K, Taylor R. BreastScreen Aotearoa: Independent Monitoring Report - Screening and assessment report of women attending BSA (Women screened January 2006 to December 2007). BreastScreen Aotearoa: Wellington 2008.

69 years was 65.2%. Trend data for this indicator show a continued decrease relative to earlier periods of the programme for all lead providers, with the exception of BSM where an increasing trend is apparent.

**4. Specific summary comments for each Lead Provider**

*BreastScreen Waitemata and North*
BSWN were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSWN significantly exceeded targets for invasive cancer detection (≤10 mm) in women attending for a subsequent screen, the proportion of node negative invasive cancers for both initial and subsequent screens and the percentage of women with DCIS or invasive cancers having breast conserving surgery. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (75.3%, target 90%), continuing a decreasing trend from previous reporting periods.

*BreastScreen Counties Manukau*
BSCM were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSCM significantly exceeded targets for the percentage of women with DCIS or invasive cancers having breast conserving surgery. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (35.1%, target 90%), continuing a decreasing trend from previous reporting periods

*BreastScreen Auckland Limited*
BSAL was unable to reach the 90% threshold required for inclusion in treatment report tables and therefore biennial indicators were not produced for BSAL for this reporting period.

*BreastScreen Midland*
BSM were either on target or exceeded targets for most biennial indicators for women in the target age range of 50-69 years. In particular, BSM significantly exceeded targets for invasive cancer detection in women attending for a subsequent screen and the percentage of women with DCIS or invasive cancers having breast conserving surgery. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (58.5%, target 90%).

*BreastScreen Coast to Coast*
BSCtoC were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSCtoC exceeded targets for invasive cancer detection in women attending for a subsequent screen, and the percentage of women with DCIS or invasive cancers having breast conserving surgery. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (66.4%, target 90%).

*BreastScreen Central*
BSC were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSC exceeded targets for the percentage of women with DCIS or invasive cancers having breast conserving surgery. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (70.6%, target 90%), continuing a decreasing trend from previous reporting periods

*BreastScreen South Limited*
BSSL were either on target or exceeded targets for almost all biennial indicators for women in the target age range of 50-69 years. In particular, BSSL significantly exceeded targets for invasive cancer detection, and the percentage of women with DCIS or invasive cancers having breast conserving surgery. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (72.0%, target 90%), continuing a decreasing trend from previous reporting periods

*BreastScreen Health Care*
BSHC were either on target or exceeded targets for most biennial indicators for women in the target age range of 50-69 years. The target was not achieved for the percentage of women receiving surgical treatment within 20 working days (66.0%, target 90%), continuing a decreasing trend from previous reporting periods

**5. Conclusion**

Overall, targets for key treatment 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:

- Percentage receiving first surgical treatment within 20 working days (5e)

## BSA ADVISORY GROUP COMMENTS AND RECOMMENDATIONS

1. Data Completeness

The BSA Advisory Group notes that, despite 9 months to enter data on the treatment of women, BSAL has been unable reach the 90% threshold for data completion which is required. As a consequence their data has been excluded from the treatment tables (but included in the BSA totals).

As it is not possible to monitor without complete data the BSA Advisory Group recommend the NSU ensures that BSAL is able to provide complete data for future reports.

2. First Surgical Treatment

It is noted that the target for first surgical treatment within 20 days is not being met by any of the Lead Providers.

The BSA Advisory Group recommends that when this target (90%) is not met, exception reports should be provided to the NSU with the IMR response template.

3. Detection of Invasive Cancers < 15 mm

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

## FOREWORD: BSA MONITORING PROCESS

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

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

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

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

## TECHNICAL NOTES FOR INTERPRETING THIS REPORT

### Developments in presentation of age extension data

A biennium has elapsed since BSA began collecting data for women aged 45-49 and 65-69 years. Interpreting trends in this report should take into consideration that indicators for a comparable age group are not available for periods prior to Jan 2005-Dec, 2006. Trend data are still presented for women age 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 the previous reporting period: BSAL, BSCM, BSWN. The following table provides a listing of Lead Providers clarifying these changes.

| 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 |

### 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 for the 2 year 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

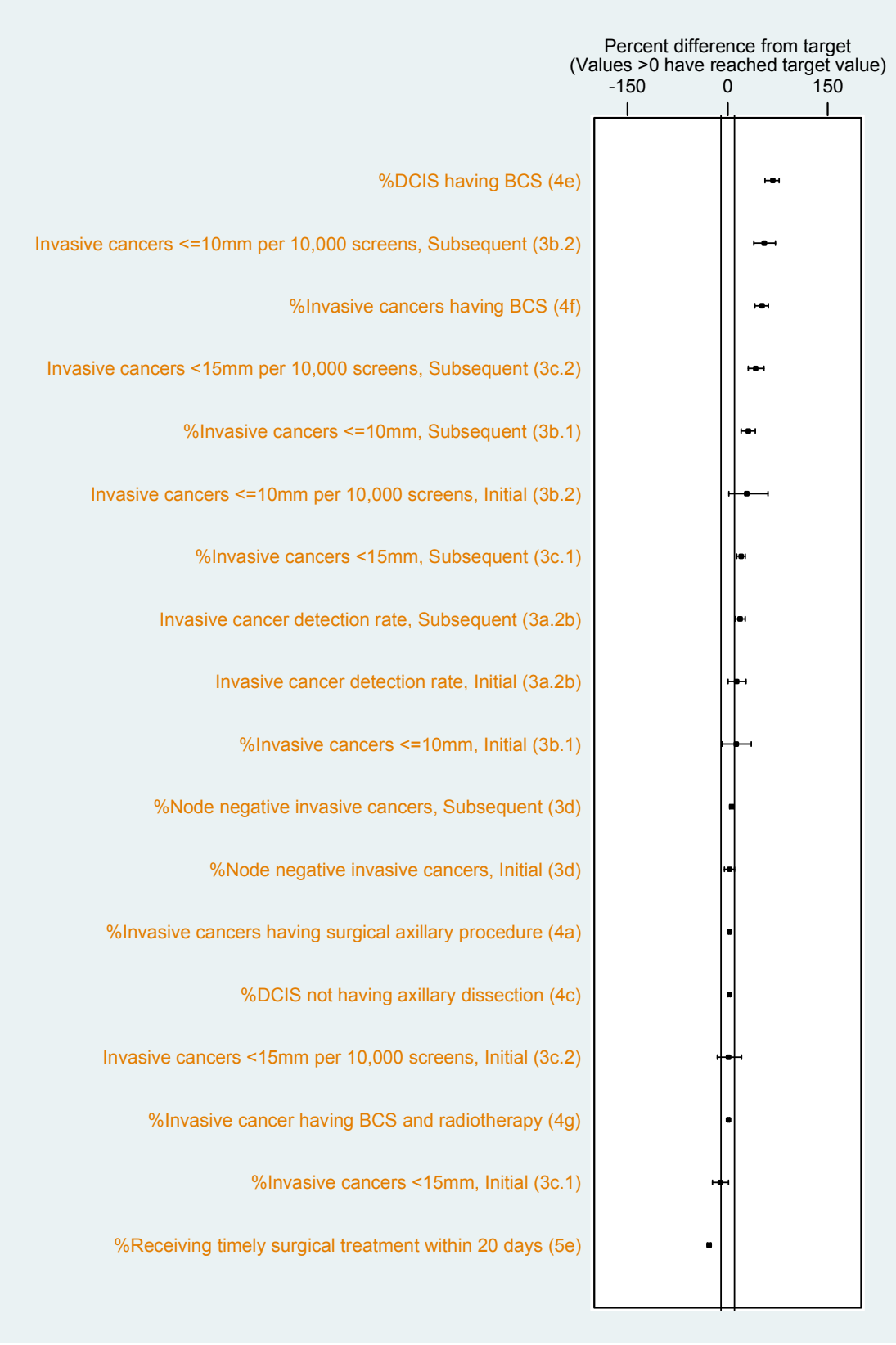
Both the magnitude of differences, and their statistical significance, are used to assess the relation of observed to target values.

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 ≥ 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 ≥ 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 0-5%, moderate differences of 5-9%, and large differences >10%.

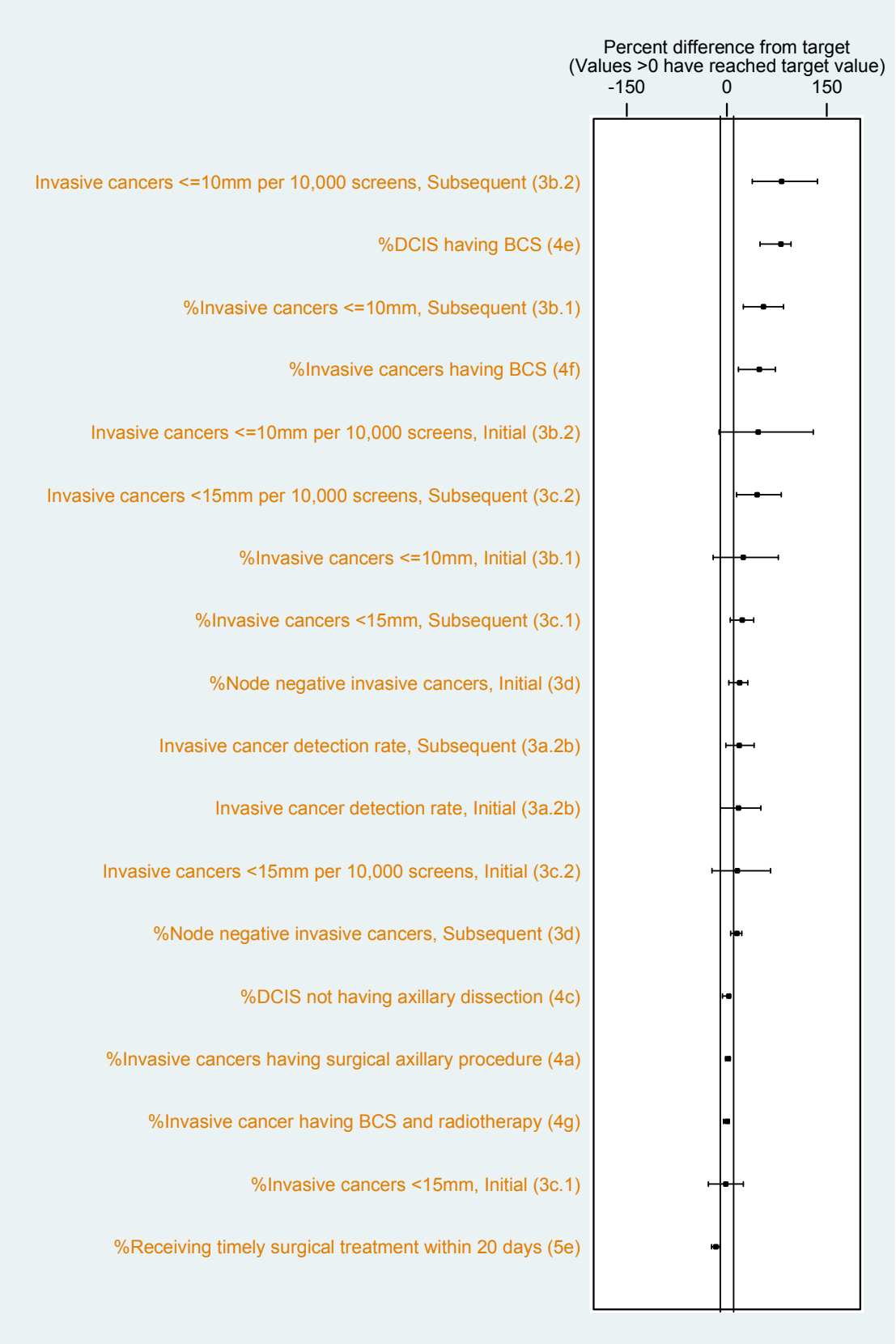
Target values relate only to biennial rates for women in the target age-group (50-69 years) for all indicators.

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



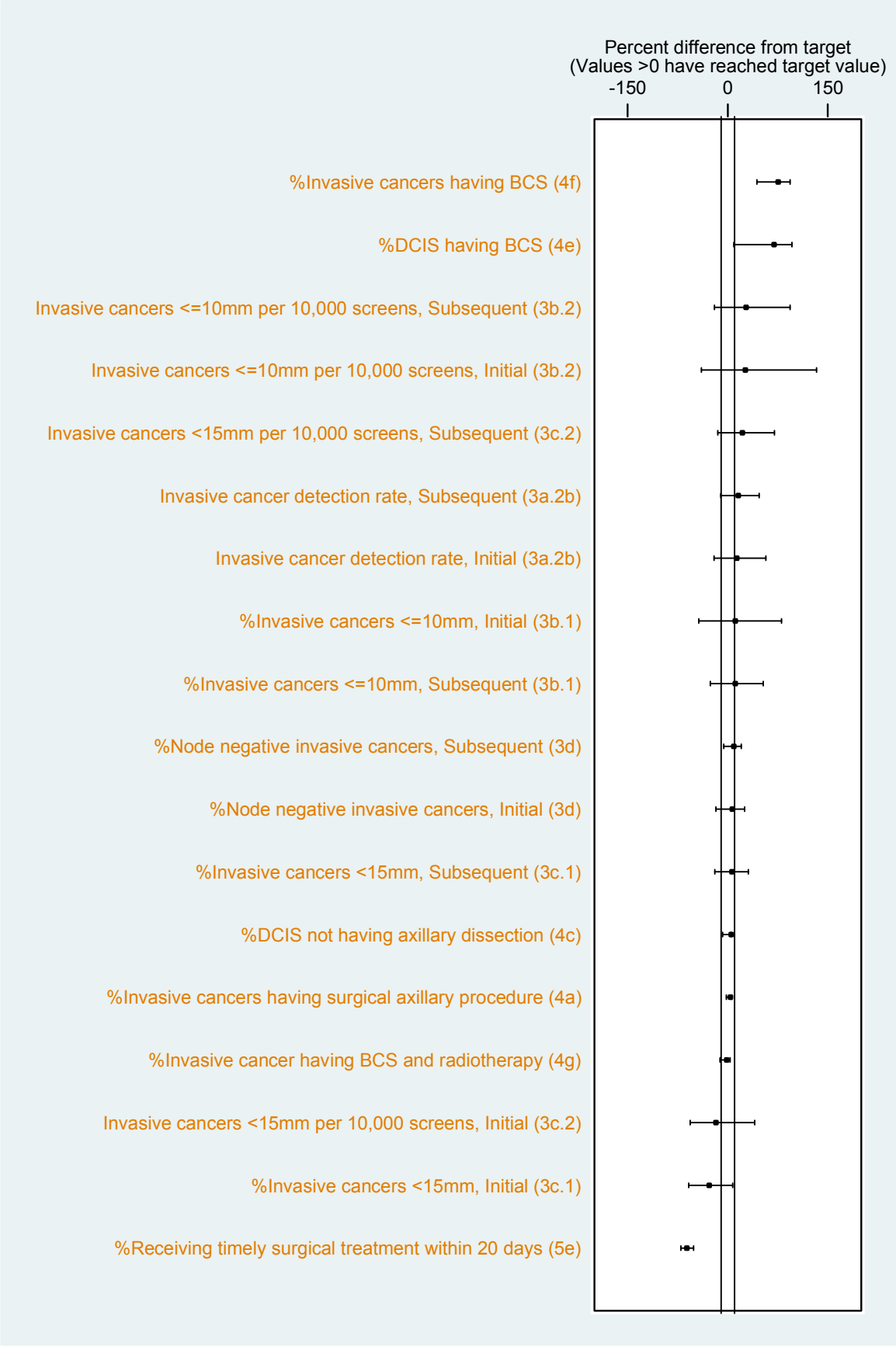

NB: The vertical line represent a ± 10% difference between the observed value and the target value

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




NB: The vertical line represent a ± 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 (Table reference in brackets)..**

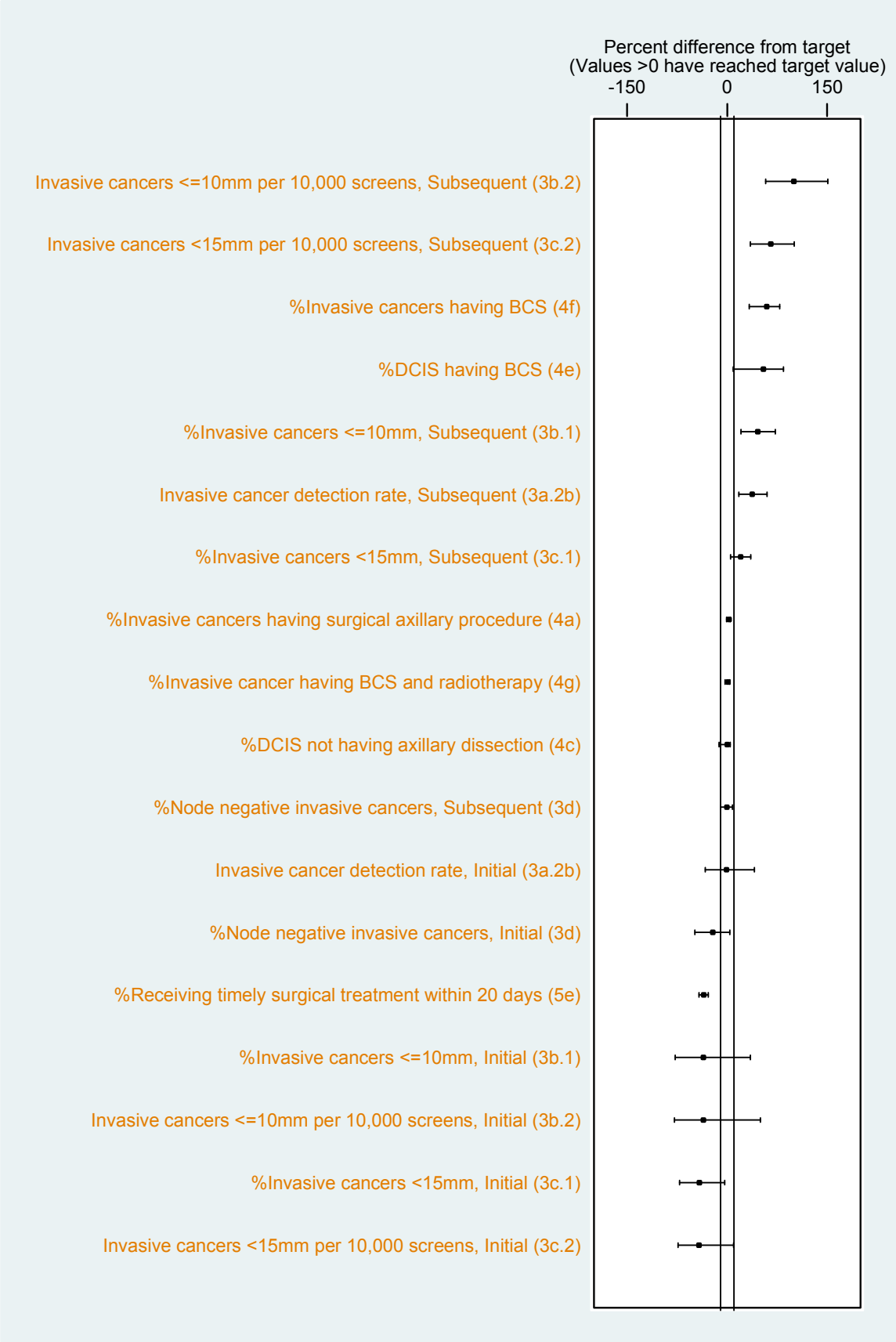



**NB**: The vertical line represent a ± 10% difference between the observed value and the target value

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

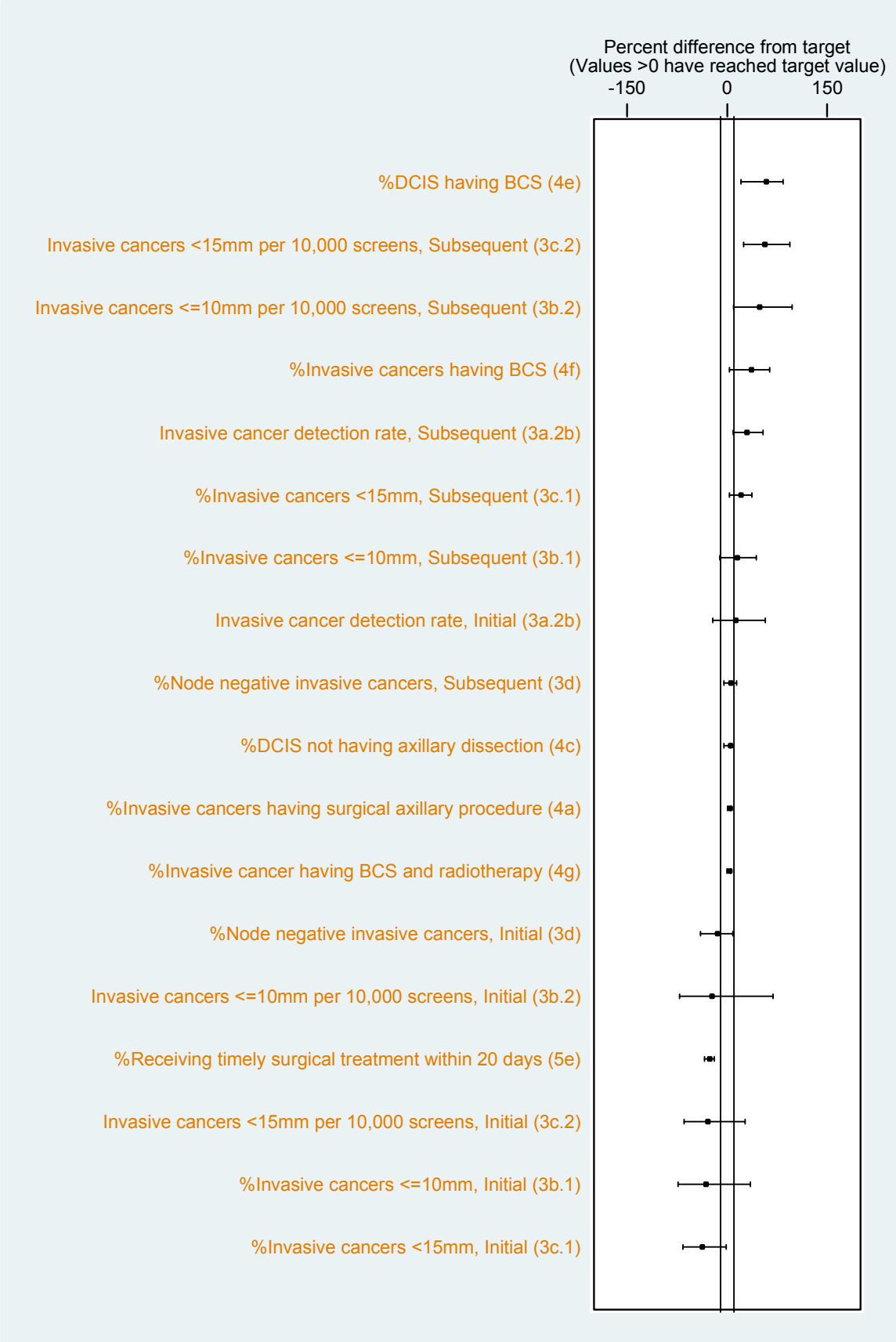
**Note:** Despite nine months to complete treatment data entry for women referred to treatment, BSAL was unable to reach the 90% threshold required for inclusion in treatment report tables and therefore a biennial indicators chart was not produced for BSAL for this reporting period.

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



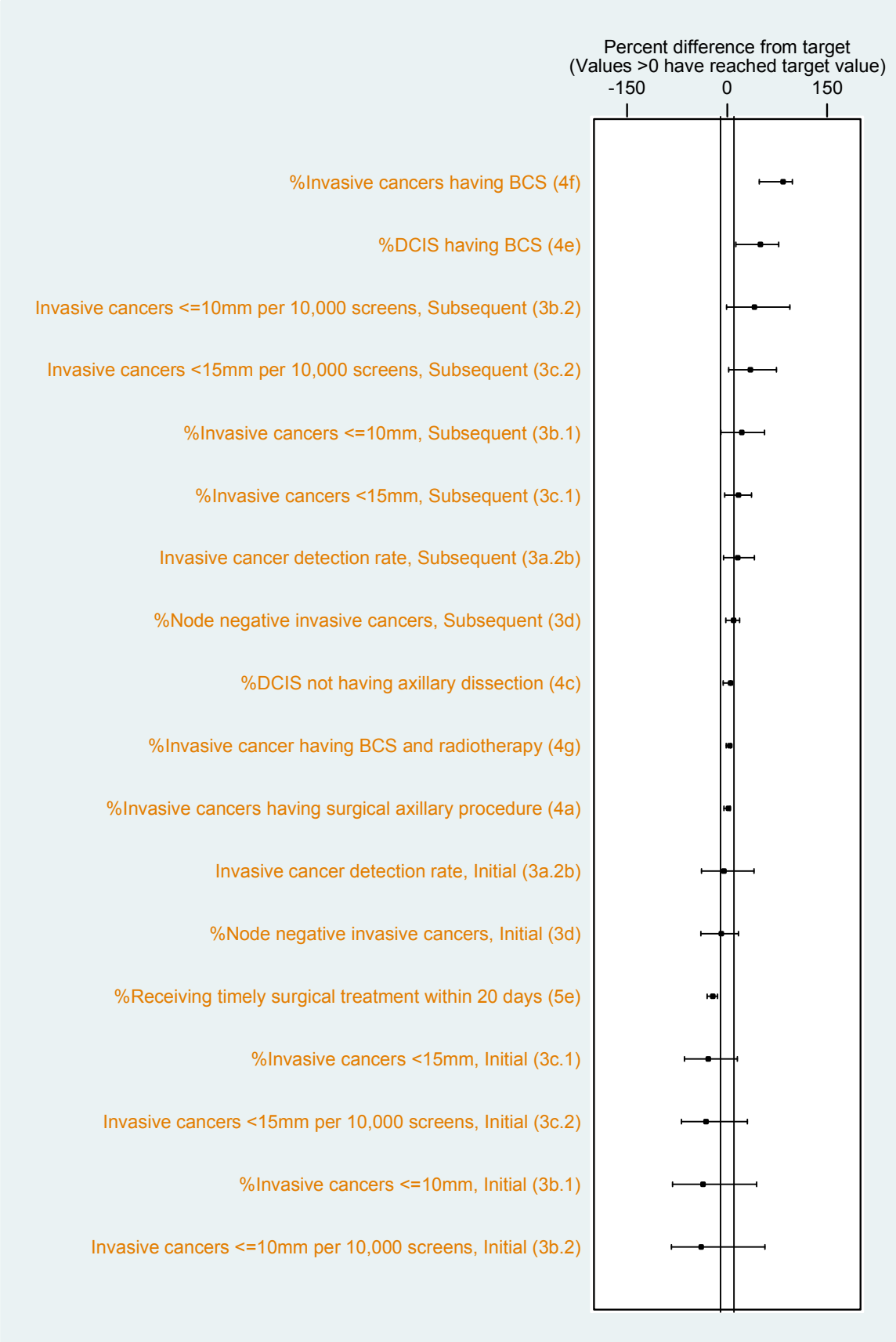

NB: The vertical line represent a ± 10% difference between the observed value and the target value

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



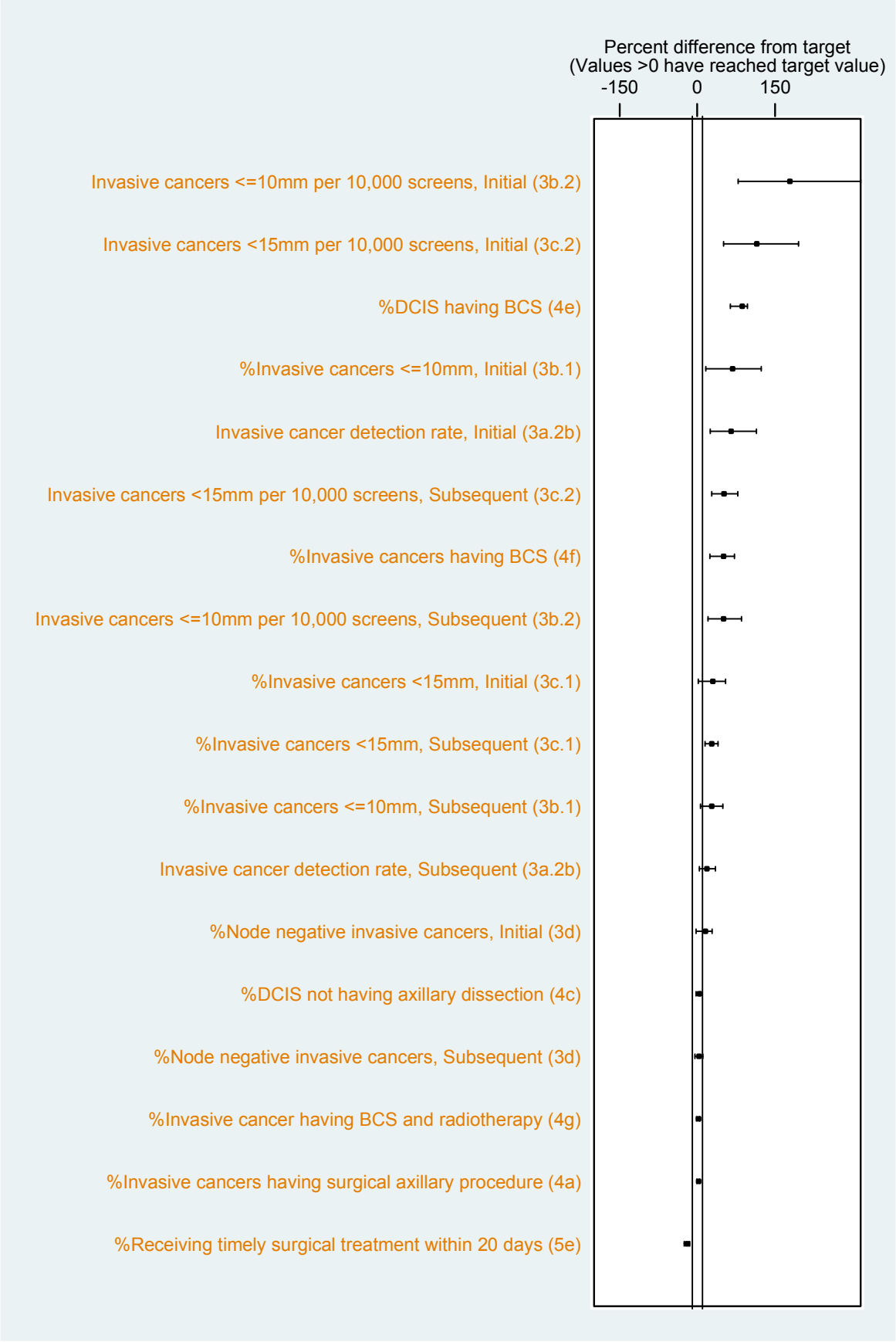

NB: The vertical line represent a ± 10% difference between the observed value and the target value

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



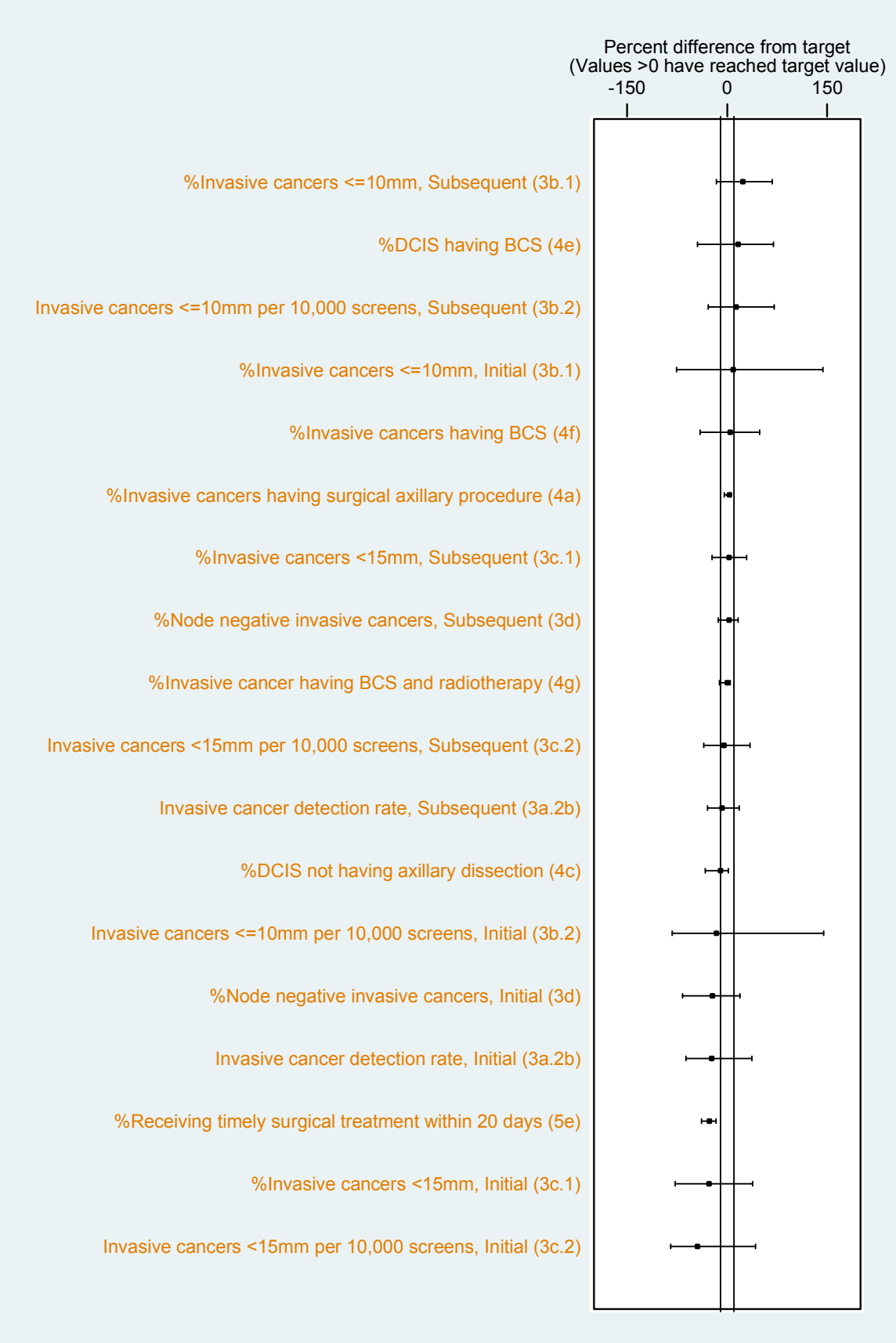

NB: The vertical line represent a ± 10% difference between the observed value and the target value

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




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

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




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

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

### 3.a.3. Treatment data completeness, 2 years

*Description:*
Lead Providers have 9 months to complete treatment data entry for women referred to treatment.
*Target:*
≥ 90%

**Table 3a.3: Treatment data completeness**

| | Women referred for Treatment | % Staging Complete | % Surgical Complete | % Endocrine Complete | % Radiotherapy Complete | % Chemotherapy Complete |
|---|---|---|---|---|---|---|
| *45-49 years* | | | | | | |
| BSWN | 60 | 98.3 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSCM | 27 | 96.3 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSAL | 41 | 87.8 | 85.4 | 73.2 | 73.2 | 73.2 |
| BSM | 50 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSCtoC | 28 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSC | 36 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSSL | 63 | 92.1 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSHC | 16 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSA Total | 321 | 96.3 | 98.1 | 96.6 | 96.6 | 96.6 |
| *50-69 years* | | | | | | |
| BSWN | 255 | 94.5 | 98.4 | 99.6 | 99.6 | 99.6 |
| BSCM | 140 | 97.1 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSAL | 114 | 89.5 | 83.3 | 77.2 | 77.2 | 77.2 |
| BSM | 248 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSCtoC | 215 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSC | 172 | 98.8 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSSL | 373 | 99.2 | 99.7 | 100.0 | 100.0 | 100.0 |
| BSHC | 98 | 99.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| BSA Total | 1,615 | 97.8 | 98.5 | 98.3 | 98.3 | 98.3 |

Note: Despite 9-months to enter data on treatment of women BSAL has been unable to reach the 90% threshold for data completion requirement. As a consequence their data has been excluded from the treatment tables, but included in BSA totals.

*Description:*
Follow-up data is collected on all BSA women who have had treatment. This must occur within minimum 5-year interval following treatment.

**Table 3a.4: Data collection completeness for patient status records, women 50-69 years**

| 6 Month Period | *Data Collection Due by* | BSAL | BSM | BSCtoC | BSC | BSSL | BSHC |
|---|---|---|---|---|---|---|---|
| *50-69 years* | | | | | | | |
| 1999 Jan-Jun | *Jun-04* | 81.0 | 100.0 | 95.2 | 100.0 | 91.9 | 95.2 |
| 1999 Jul-Dec | *Dec-04* | 75.2 | 100.0 | 100.0 | 100.0 | 93.0 | 100.0 |
| 2000 Jan-Jun | *Jun-05* | 68.9 | 97.1 | 100.0 | 100.0 | 98.7 | 96.6 |
| 2000 Jul-Dec | *Dec-05* | 70.4 | 100.0 | 96.6 | 96.3 | 94.8 | 100.0 |
| 2001 Jan-Jun | *Jun-06* | 8.8 | 100.0 | 100.0 | 97.8 | 96.8 | 100.0 |
| 2001 Jul-Dec | *Dec-06* | 0.9 | 92.1 | 100.0 | 97.5 | 96.5 | 94.4 |
| 2002 Jan-Jun | *Jun-07* | 0.0 | 83.7 | 93.2 | 96.3 | 95.4 | 95.0 |
| 2002 Jul-Dec | *Dec-07* | 0.0 | 81.8 | 96.7 | 86.4 | 97.5 | 78.3 |
| 2003 Jan-Jun | *Jun-08* | 0.0 | 82.5 | 57.6 | 53.6 | 100.0 | 83.3 |
| 2003 Jul-Dec | *Dec-08* | 0.0 | 71.4 | 81.8 | 28.9 | 89.1 | 77.8 |
| 2004 Jan-Jun | *Jun-09* | 0.0 | 27.9 | 2.9 | 5.4 | 34.3 | 66.7 |

Note: Despite 9-months to enter data on treatment of women BSAL continues to be unable to reach the 90% threshold for data completion requirement. As a consequence their data has been excluded from the treatment tables, but included in BSA totals

### 3.a.2b. Invasive cancer detection, 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 (2 years) for initial and subsequent screens, women 45-69 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 | 42 | 10,905 | 3.9 (2.8-5.2) | | | 1 | 735 | 1.4 (0.0-7.6) | | |
| BSCM | 17 | 5,588 | 3.0 (1.8-4.9) | | | 2 | 238 | 8.4 (1.0-30.4) | | |
| BSAL | 26 | 4,828 | 5.4 (3.5-7.9) | | | 0 | 277 | 0.0 (0.0-13.3) | | |
| BSM | 33 | 8,169 | 4.0 (2.8-5.7) | | | 3 | 2,158 | 1.4 (0.3-4.1) | | |
| BSCtoC | 18 | 7,086 | 2.5 (1.5-4.0) | | | 4 | 1,659 | 2.4 (0.7-6.2) | | |
| BSC | 21 | 6,040 | 3.5 (2.2-5.3) | | | 8 | 1,425 | 5.6 (2.4-11.1) | | |
| BSSL | 30 | 17,579 | 1.7 (1.2-2.4) | | | 4 | 2,936 | 1.4 (0.4-3.5) | | |
| BSHC | 11 | 4,097 | 2.7 (1.3-4.8) | | | 2 | 1,326 | 1.5 (0.2-5.4) | | |
| BSA Total | 198 | 64,292 | 3.1 (2.7-3.5) | | | 24 | 10,754 | 2.2 (1.4-3.3) | | |
| *50-69 years* | | | | | | | | | | |
| BSWN | 61 | 8,496 | 7.2 (5.5-9.2) | ✓ | ns | 125 | 30,600 | 4.1 (3.4-4.9) | ✓ | ns |
| BSCM | 36 | 5,193 | 6.9 (4.9-9.6) | ✓ | ns | 66 | 16,553 | 4.0 (3.1-5.1) | ✓ | ns |
| BSAL | 24 | 4,168 | 5.8 (3.7-8.6) | ✓ | ns | 45 | 14,068 | 3.2 (2.3-4.3) | ✓ | ns |
| BSM | 31 | 5,118 | 6.1 (4.1-8.6) | ✓ | ns | 171 | 36,021 | 4.7 (4.1-5.5) | ✓✓✓ | * |
| BSCtoC | 35 | 5,086 | 6.9 (4.8-9.6) | ✓ | ns | 139 | 30,974 | 4.5 (3.8-5.3) | ✓✓✓ | * |
| BSC | 25 | 4,306 | 5.8 (3.8-8.6) | ✓ | ns | 101 | 25,285 | 4.0 (3.3-4.9) | ✓ | ns |
| BSSL | 57 | 5,653 | 10.1 (7.6-13.1) | ✓✓✓ | * | 230 | 56,153 | 4.1 (3.6-4.7) | ✓✓✓ | * |
| BSHC | 11 | 2,354 | 4.7 (2.3-8.4) | ✓ | ns | 62 | 19,479 | 3.2 (2.4-4.1) | ✓ | ns |
| BSA Total | 280 | 40,374 | 6.9 (6.1-7.8) | ✓✓✓ | * | 939 | 229,133 | 4.1 (3.8-4.4) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

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.b. Detection of invasive cancers ≤ 10 mm, 2 years

*Description:*

Proportion and rate of primary 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 in women aged 45-69 years, 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 | 16 | 42 | 38.1 (23.6-54.4) | | | 0 | 1 | | | |
| BSCM | 4 | 17 | 23.5 (6.8-49.9) | | | 1 | 2 | | | |
| BSAL | | | | | | | | | | |
| BSM | 7 | 33 | 21.2 (9.0-38.9) | | | 1 | 3 | | | |
| BSCtoC | 9 | 18 | 50.0 (26.0-74.0) | | | 1 | 4 | | | |
| BSC | 7 | 21 | 33.3 (14.6-57.0) | | | 1 | 8 | | | |
| BSSL | 11 | 30 | 36.7 (19.9-56.1) | | | 0 | 4 | | | |
| BSHC | 1 | 11 | 9.1 (0.2-41.3) | | | 0 | 2 | | | |
| BSA Total | 60 | 198 | 30.3 (24.0-37.2) | | | 4 | 24 | | | |
| *50-69 years* | | | | | | | | | | |
| BSWN | 19 | 61 | 31.1 (19.9-44.3) | ✓ | ns | 58 | 125 | 46.4 (37.4-55.5) | ✓✓✓ | * |
| BSCM | 10 | 36 | 27.8 (14.2-45.2) | ✓ | ns | 22 | 66 | 33.3 (22.2-46.0) | ✓ | ns |
| BSAL | | | | | | | | | | |
| BSM | 5 | 31 | 16.1 (5.5-33.7) | ✓ | ns | 75 | 171 | 43.9 (36.3-51.6) | ✓✓✓ | * |
| BSCtoC | 6 | 35 | 17.1 (6.6-33.6) | ✓ | ns | 48 | 139 | 34.5 (26.7-43.1) | ✓ | ns |
| BSC | 4 | 25 | 16.0 (4.5-36.1) | ✓ | ns | 37 | 101 | 36.6 (27.3-46.8) | ✓ | ns |
| BSSL | 24 | 57 | 42.1 (29.1-55.9) | ✓✓✓ | * | 88 | 230 | 38.3 (32.0-44.9) | ✓✓✓ | * |
| BSHC | 3 | 11 | 27.3 (6.0-61.0) | ✓ | ns | 23 | 62 | 37.1 (25.2-50.3) | ✓ | ns |
| BSA Total | 79 | 280 | 28.2 (23.0-33.9) | ✓ | ns | 369 | 939 | 39.3 (36.2-42.5) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

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 in women aged 45-69 years, 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 | 16 | 10,905 | 14.7 (8.4-23.8) | | | 0 | 735 | | | |
| BSCM | 4 | 5,588 | 7.2 (2.0-18.3) | | | 1 | 238 | | | |
| BSAL | | | | | | | | | | |
| BSM | 7 | 8,169 | 8.6 (3.4-17.7) | | | 1 | 2,158 | | | |
| BSCtoC | 9 | 7,086 | 12.7 (5.8-24.1) | | | 1 | 1,659 | | | |
| BSC | 7 | 6,040 | 11.6 (4.7-23.9) | | | 1 | 1,425 | | | |
| BSSL | 11 | 17,579 | 6.3 (3.1-11.2) | | | 0 | 2,936 | | | |
| BSHC | 1 | 4,097 | 2.4 (0.1-13.6) | | | 0 | 1,326 | | | |
| BSA Total | 60 | 64,292 | 9.3 (7.1-12.0) | | | 4 | 10,754 | | | |
| *50-69 years* | | | | | | | | | | |
| BSWN | 19 | 8,496 | 22.4 (13.5-34.9) | ✓ | ns | 58 | 30,600 | 19.0 (14.4-24.5) | ✓✓✓ | * |
| BSCM | 10 | 5,193 | 19.3 (9.2-35.4) | ✓ | ns | 22 | 16,553 | 13.3 (8.3-20.1) | ✓ | ns |
| BSAL | | | | | | | | | | |
| BSM | 5 | 5,118 | 9.8 (3.2-22.8) | ✓ | ns | 75 | 36,021 | 20.8 (16.4-26.1) | ✓✓✓ | * |
| BSCtoC | 6 | 5,086 | 11.8 (4.3-25.7) | ✓ | ns | 48 | 30,974 | 15.5 (11.4-20.5) | ✓✓✓ | * |
| BSC | 4 | 4,306 | 9.3 (2.5-23.8) | ✓ | ns | 37 | 25,285 | 14.6 (10.3-20.2) | ✓ | ns |
| BSSL | 24 | 5,653 | 42.5 (27.2-63.2) | ✓✓✓ | * | 88 | 56,153 | 15.7 (12.6-19.3) | ✓✓✓ | * |
| BSHC | 3 | 2,354 | 12.7 (2.6-37.2) | ✓ | ns | 23 | 19,479 | 11.8 (7.5-17.7) | ✓ | ns |
| BSA Total | 79 | 40,374 | 19.6 (15.5-24.4) | ✓✓✓ | * | 369 | 229,133 | 16.1 (14.5-17.8) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)
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

### 3.c.1. Proportion of invasive cancers <15 mm, women aged 45-69 years, 2 years

*Description:*
Proportion and rate of primary 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

**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 | 20 | 42 | 47.6 (32.0-63.6) | | | 1 | 1 | | | |
| BSCM | 6 | 17 | 35.3 (14.2-61.7) | | | 1 | 2 | | | |
| BSAL | | | | | | | | | | |
| BSM | 12 | 33 | 36.4 (20.4-54.9) | | | 2 | 3 | | | |
| BSCtoC | 12 | 18 | 66.7 (41.0-86.7) | | | 2 | 4 | | | |
| BSC | 11 | 21 | 52.4 (29.8-74.3) | | | 5 | 8 | | | |
| BSSL | 13 | 30 | 43.3 (25.5-62.6) | | | 2 | 4 | | | |
| BSHC | 3 | 11 | 27.3 (6.0-61.0) | | | 0 | 2 | | | |
| BSA Total | 85 | 198 | 42.9 (35.9-50.1) | | | 13 | 24 | | | |
| *50-69 years* | | | | | | | | | | |
| BSWN | 30 | 61 | 49.2 (36.1-62.3) | ✓ | ns | 77 | 125 | 61.6 (52.5-70.2) | ✓✓✓ | * |
| BSCM | 13 | 36 | 36.1 (20.8-53.8) | ✓ | ns | 35 | 66 | 53.0 (40.3-65.4) | ✓ | ns |
| BSAL | | | | | | | | | | |
| BSM | 9 | 31 | 29.0 (14.2-48.0) | ××× | * | 103 | 171 | 60.2 (52.5-67.6) | ✓✓✓ | * |
| BSCtoC | 11 | 35 | 31.4 (16.9-49.3) | ××× | * | 84 | 139 | 60.4 (51.8-68.6) | ✓✓✓ | * |
| BSC | 9 | 25 | 36.0 (18.0-57.5) | ✓ | ns | 59 | 101 | 58.4 (48.2-68.1) | ✓ | ns |
| BSSL | 37 | 57 | 64.9 (51.1-77.1) | ✓✓✓ | * | 147 | 230 | 63.9 (57.3-70.1) | ✓✓✓ | * |
| BSHC | 4 | 11 | 36.4 (10.9-69.2) | ✓ | ns | 32 | 62 | 51.6 (38.6-64.5) | ✓ | ns |
| BSA Total | 125 | 280 | 44.6 (38.7-50.7) | ✓ | ns | 564 | 939 | 60.1 (56.9-63.2) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)
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 and 95% Confidence Interval not statistically 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, 2years**

| | 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 | 20 | 10,905 | 18.3 (11.2-28.3) | | | 1 | 735 | | | |
| BSCM | 6 | 5,588 | 10.7 (3.9-23.4) | | | 1 | 238 | | | |
| BSAL | | | | | | | | | | |
| BSM | 12 | 8,169 | 14.7 (7.6-25.7) | | | 2 | 2,158 | | | |
| BSCtoC | 12 | 7,086 | 16.9 (8.8-29.6) | | | 2 | 1,659 | | | |
| BSC | 11 | 6,040 | 18.2 (9.1-32.6) | | | 5 | 1,425 | | | |
| BSSL | 13 | 17,579 | 7.4 (3.9-12.6) | | | 2 | 2,936 | | | |
| BSHC | 3 | 4,097 | 7.3 (1.5-21.4) | | | 0 | 1,326 | | | |
| BSA Total | 85 | 64,292 | 13.2 (10.6-16.3) | | | 13 | 10,754 | 12.1 (6.4-20.7) | | |
| *50-69 years* | | | | | | | | | | |
| BSWN | 30 | 8,496 | 35.3 (23.8-50.4) | ✓ | ns | 77 | 30,600 | 25.2 (19.9-31.4) | ✓✓✓ | * |
| BSCM | 13 | 5,193 | 25.0 (13.3-42.8) | ✓ | ns | 35 | 16,553 | 21.1 (14.7-29.4) | ✓ | ns |
| BSAL | | | | | | | | | | |
| BSM | 9 | 5,118 | 17.6 (8.0-33.4) | ✓ | ns | 103 | 36,021 | 28.6 (23.3-34.7) | ✓✓✓ | * |
| BSCtoC | 11 | 5,086 | 21.6 (10.8-38.7) | ✓ | ns | 84 | 30,974 | 27.1 (21.6-33.6) | ✓✓✓ | * |
| BSC | 9 | 4,306 | 20.9 (9.6-39.7) | ✓ | ns | 59 | 25,285 | 23.3 (17.8-30.1) | ✓✓✓ | * |
| BSSL | 37 | 5,653 | 65.5 (46.1-90.2) | ✓✓✓ | * | 147 | 56,153 | 26.2 (22.1-30.8) | ✓✓✓ | * |
| BSHC | 4 | 2,354 | 17.0 (4.6-43.5) | ✓ | ns | 32 | 19,479 | 16.4 (11.2-23.2) | ✓ | ns |
| BSA Total | 125 | 40,374 | 31.0 (25.8-36.9) | ✓ | ns | 564 | 229,133 | 24.6 (22.6-26.7) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)
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 < 15 mm, initial screens, 2 years**

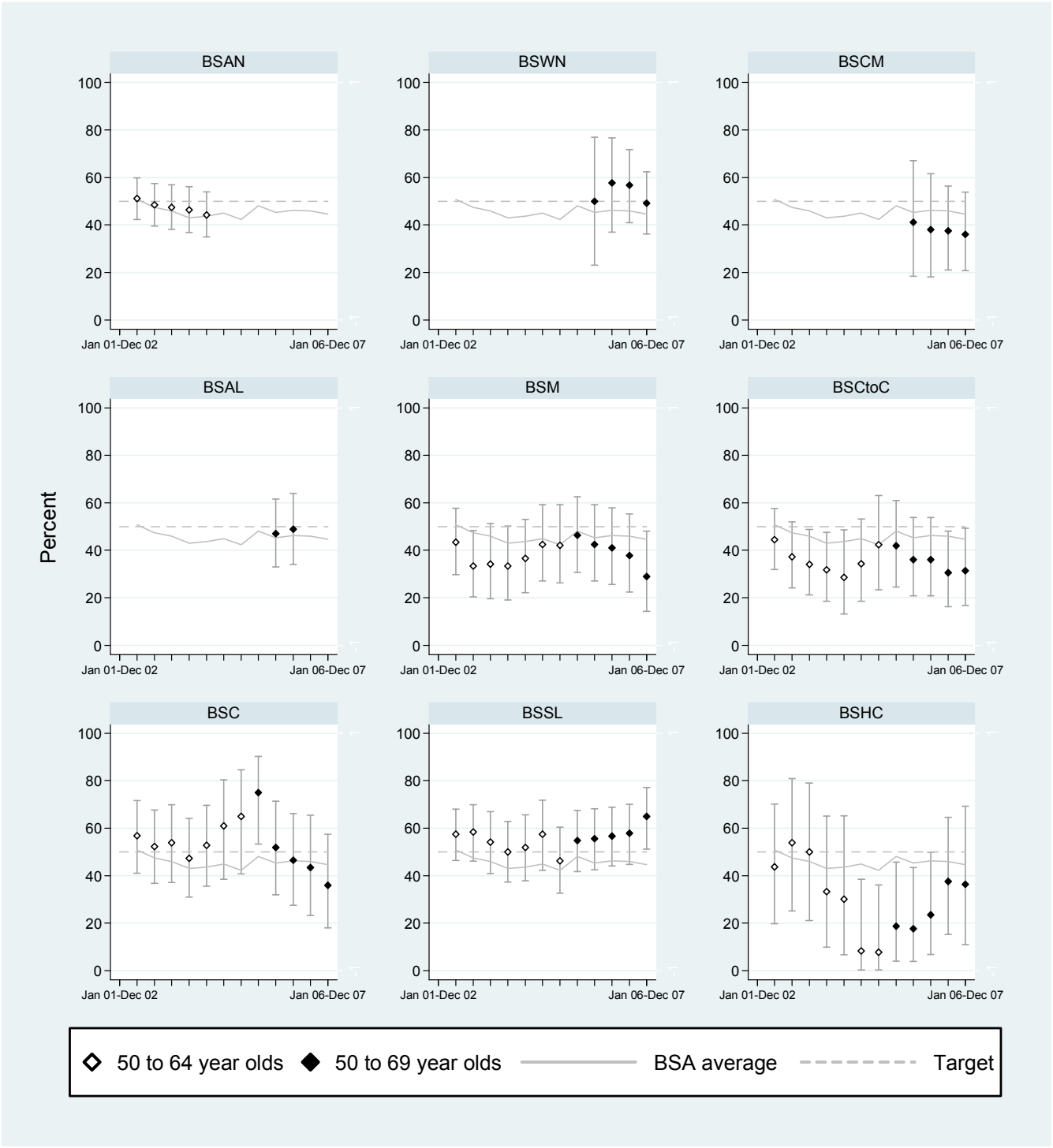


**Figure 3c.1: Proportion invasive cancers < 15 mm, subsequent screens, 2 years**

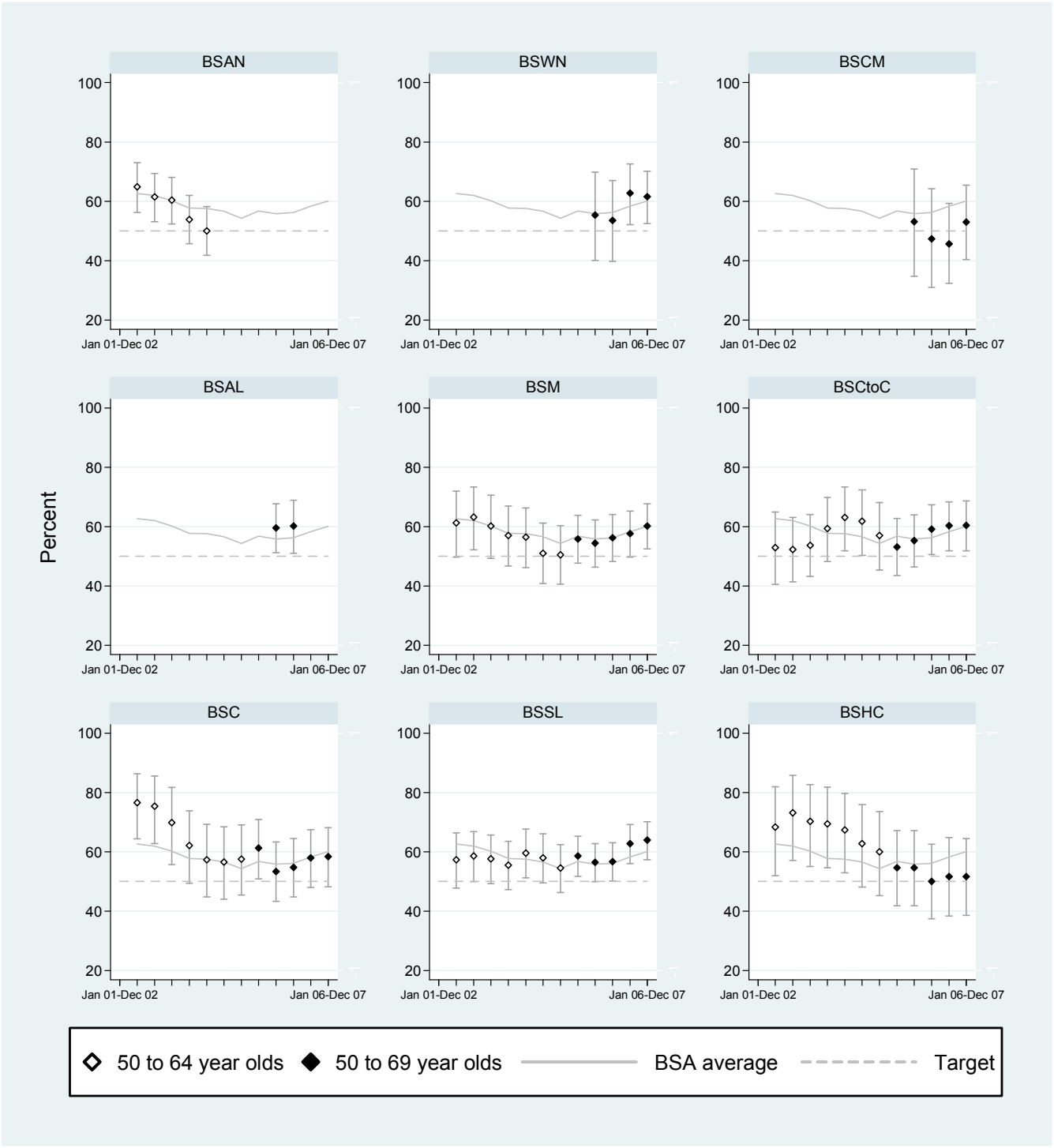


**Figure 3c.2: Invasive cancers < 15 mm per 10,000 women screened, initial screens, 2 years**

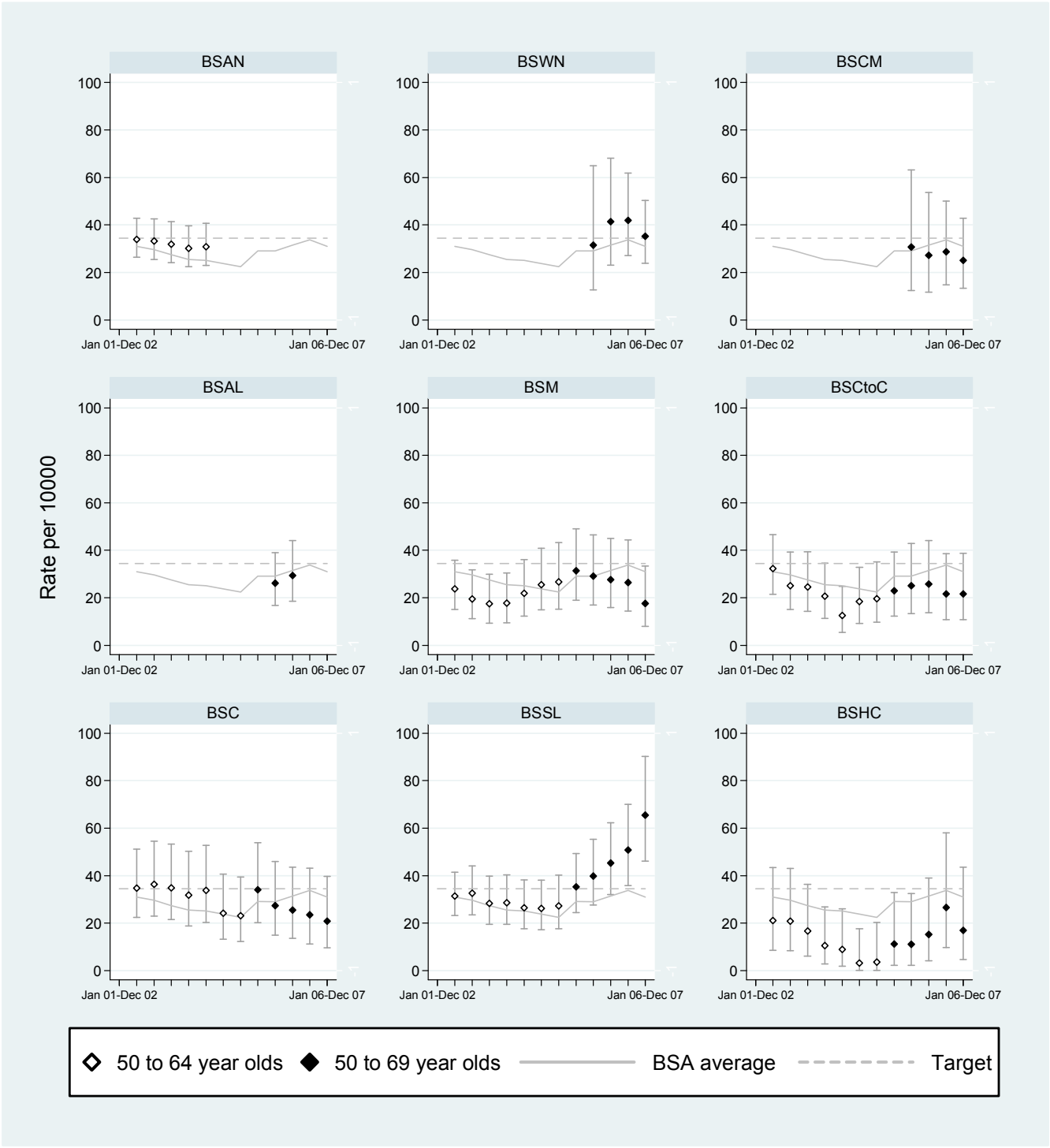
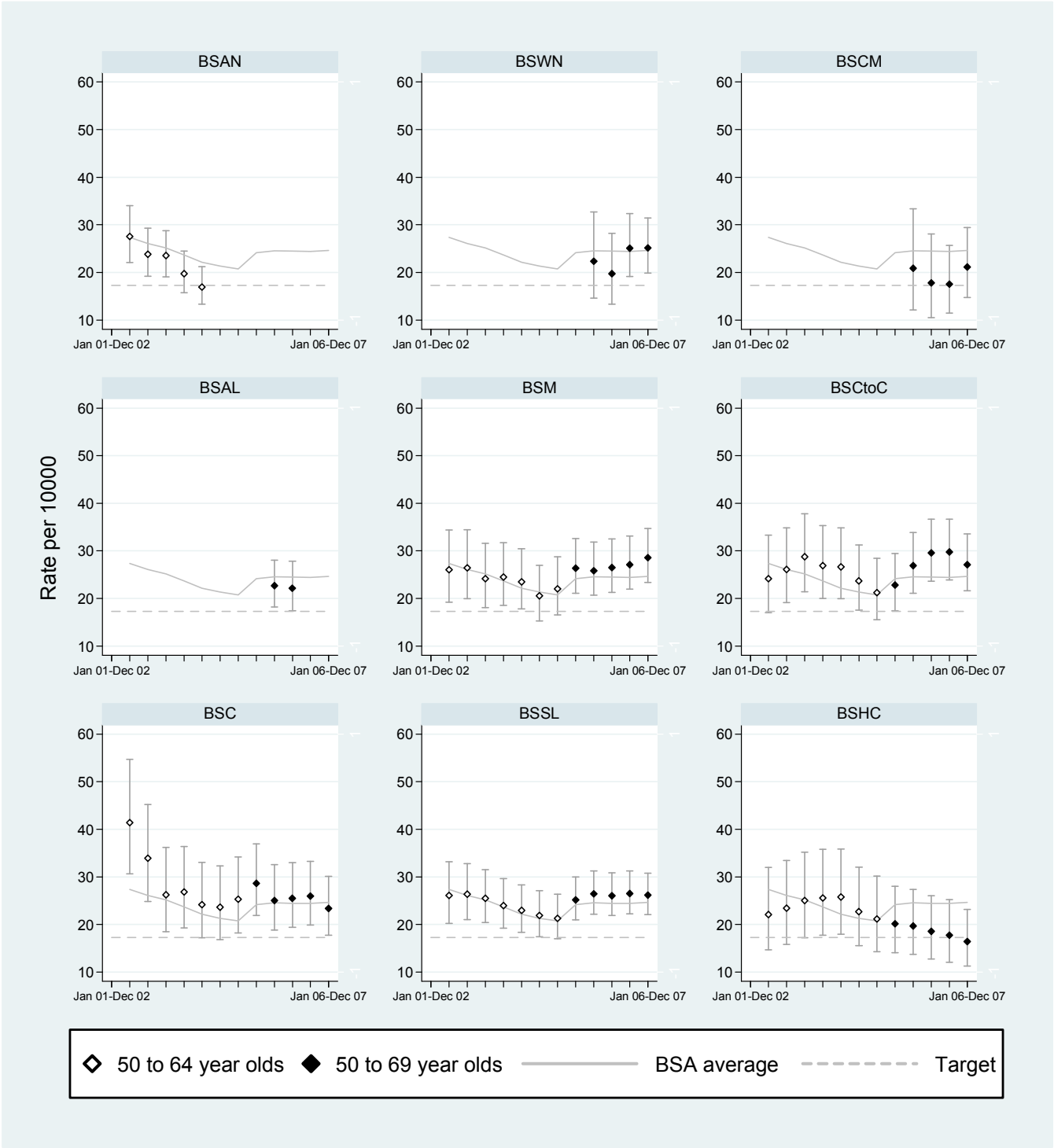


**Figure 3c.2: Invasive cancers < 15 mm per 10,000 women screened, subsequent screens, 2 years**



## 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 women aged 45-69 years, 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 | 29 | 42 | 69.0 (52.9-82.4) | | | 1 | 1 | | | |
| BSCM | 11 | 17 | 64.7 (38.3-85.8) | | | 1 | 2 | | | |
| BSAL | | | | | | | | | | |
| BSM | 19 | 33 | 57.6 (39.2-74.5) | | | 2 | 3 | | | |
| BSCtoC | 13 | 18 | 72.2 (46.5-90.3) | | | 1 | 4 | | | |
| BSC | 15 | 21 | 71.4 (47.8-88.7) | | | 4 | 8 | | | |
| BSSL | 21 | 30 | 70.0 (50.6-85.3) | | | 3 | 4 | | | |
| BSHC | 6 | 11 | 54.5 (23.4-83.3) | | | 1 | 2 | | | |
| BSA Total | 129 | 198 | 65.2 (58.1-71.8) | | | 13 | 24 | | | |
| *50-69 years* | | | | | | | | | | |
| BSWN | 51 | 61 | 83.6 (71.9-91.8) | ✓✓✓ | * | 108 | 125 | 86.4 (79.1-91.9) | ✓✓✓ | * |
| BSCM | 27 | 36 | 75.0 (57.8-87.9) | ✓ | ns | 54 | 66 | 81.8 (70.4-90.2) | ✓ | ns |
| BSAL | | | | | | | | | | |
| BSM | 17 | 31 | 54.8 (36.0-72.7) | ✓ | ns | 128 | 171 | 74.9 (67.7-81.2) | ✓ | ns |
| BSCtoC | 21 | 35 | 60.0 (42.1-76.1) | ✓ | ns | 110 | 139 | 79.1 (71.4-85.6) | ✓ | ns |
| BSC | 16 | 25 | 64.0 (42.5-82.0) | ✓ | ns | 83 | 101 | 82.2 (73.3-89.1) | ✓ | ns |
| BSSL | 46 | 57 | 80.7 (68.1-90.0) | ✓ | ns | 178 | 230 | 77.4 (71.4-82.6) | ✓ | ns |
| BSHC | 6 | 11 | 54.5 (23.4-83.3) | ✓ | ns | 48 | 62 | 77.4 (65.0-87.1) | ✓ | ns |
| BSA Total | 202 | 280 | 72.1 (66.5-77.3) | ✓ | ns | 749 | 939 | 79.8 (77.1-82.3) | ✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)
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**

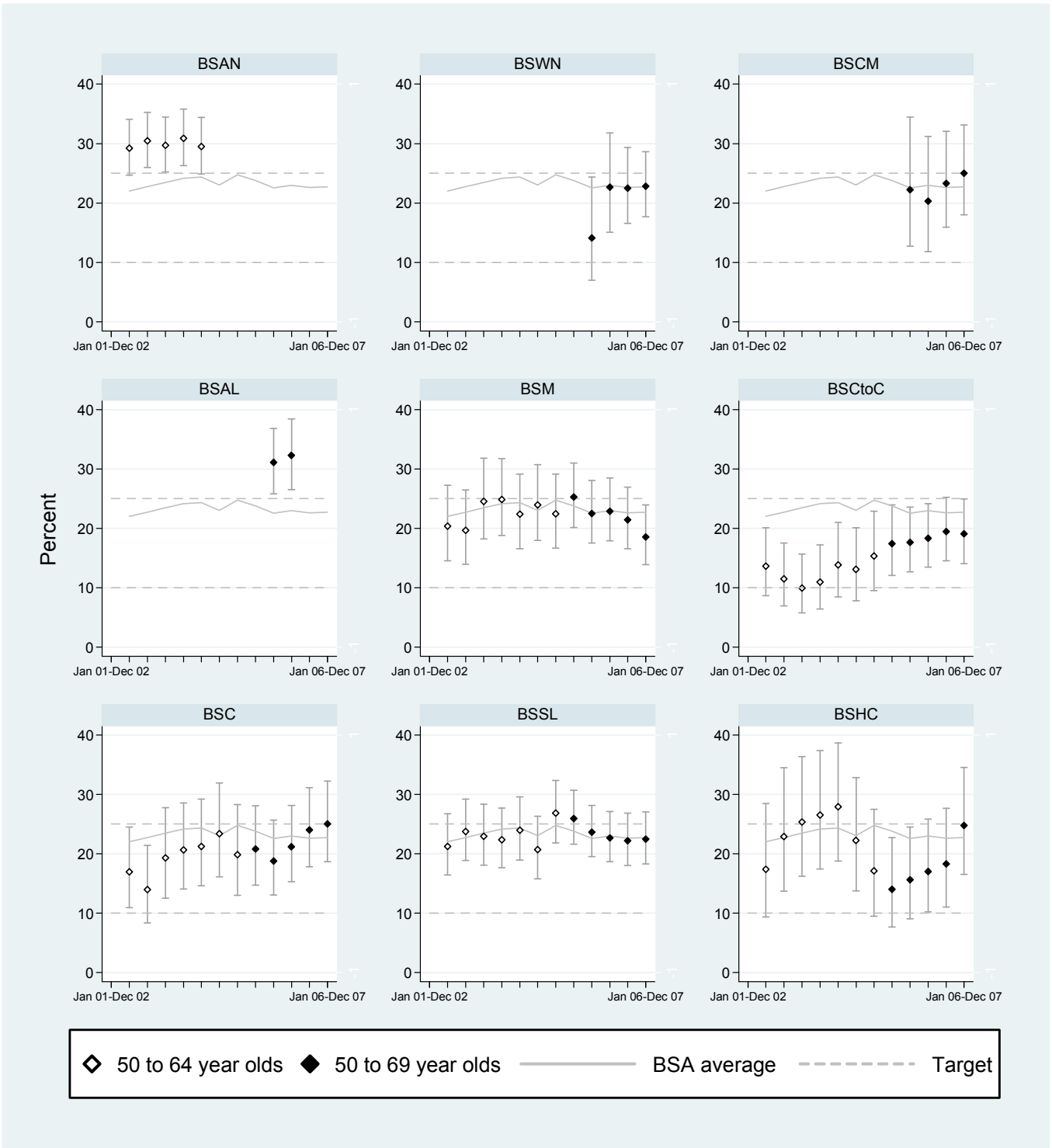
| | DCIS | Total cancers | % (95%CI) |
|---|---|---|---|
| *45-49 years* | | | |
| BSWN | 16 | 59 | 27.1 (16.4-40.3) |
| BSCM | 7 | 26 | 26.9 (11.6-47.8) |
| BSAL | | | |
| BSM | 14 | 50 | 28.0 (16.2-42.5) |
| BSCtoC | 6 | 28 | 21.4 (8.3-41.0) |
| BSC | 7 | 36 | 19.4 (8.2-36.0) |
| BSSL | 24 | 58 | 41.4 (28.6-55.1) |
| BSHC | 3 | 16 | 18.8 (4.0-45.6) |
| BSA Total | 87 | 309 | 28.2 (23.2-33.5) |
| *50-69 years* | | | |
| BSWN | 55 | 241 | 22.8 (17.7-28.6) |
| BSCM | 34 | 136 | 25.0 (18.0-33.1) |
| BSAL | | | |
| BSM | 46 | 248 | 18.5 (13.9-24.0) |
| BSCtoC | 41 | 215 | 19.1 (14.0-25.0) |
| BSC | 42 | 168 | 25.0 (18.7-32.3) |
| BSSL | 83 | 370 | 22.4 (18.3-27.0) |
| BSHC | 24 | 97 | 24.7 (16.5-34.5) |
| BSA Total | 358 | 1,577 | 22.7 (20.7-24.9) |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

Note: The number of invasive cancers noted in Staging and Grading and Treatment indicator tables may differ from earlier tables in the screening and assessment section. Only completed treatment data is included in the Staging and Grading / Treatment section of this report. Some data maybe incomplete at report date (please refer to table 3a5), or some woman diagnosed with cancer may decline treatment and therefore will not be included in staging and grading data.

Exact Binomial 95% Confidence Intervals presented

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



## 4. TREATMENT

### 4.a. Women with invasive cancer > 1 mm, having a surgical axillary procedure

*Description:*

Percentage of all women who are operated on for a screen detected invasive cancer, over 1 mm in size, who have a surgical axillary procedure.

*Target:*

95% of women operated on for invasive cancer over 1 mm in size, should normally have a surgical axillary procedure.

**Table 4a: Percentage of women with invasive cancer having a surgical axillary procedure in women aged 45-69 years, 2 years**

| | Number having surgical axillary procedure for invasive cancers >1 mm | Number having an operation for invasive cancers >1 mm | % (95%CI) | | |
|---|---|---|---|---|---|
| *45-49 years* | | | | | |
| BSWN | 30 | 30 | 100.0 (88.4-100.0) | | |
| BSCM | 16 | 16 | 100.0 (79.4-100.0) | | |
| BSAL | | | | | |
| BSM | 30 | 30 | 100.0 (88.4-100.0) | | |
| BSCtoC | 15 | 16 | 93.8 (69.8-99.8) | | |
| BSC | 23 | 23 | 100.0 (85.2-100.0) | | |
| BSSL | | | | | |
| BSHC | 12 | 12 | 100.0 (73.5-100.0) | | |
| BSA Total | 170 | 171 | 99.4 (96.8-100.0) | | |
| *50-69 years* | | | | | |
| BSWN | 116 | 119 | 97.5 (92.8-99.5) | ✓ | ns |
| BSCM | 76 | 77 | 98.7 (93.0-100.0) | ✓ | ns |
| BSAL | | | | | |
| BSM | 143 | 146 | 97.9 (94.1-99.6) | ✓ | ns |
| BSCtoC | 130 | 131 | 99.2 (95.8-100.0) | ✓ | * |
| BSC | 85 | 88 | 96.6 (90.4-99.3) | ✓ | ns |
| BSSL | 192 | 197 | 97.5 (94.2-99.2) | ✓ | ns |
| BSHC | 57 | 58 | 98.3 (90.8-100.0) | ✓ | ns |
| BSA Total | 836 | 855 | 97.8 (96.6-98.7) | ✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

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

## 4.b. Women with invasive cancer having a single excision

*Description:*

The proportion of women with invasive cancer, who have a single excision breast treatment procedure.

*Target:*

No target

**Table 4b: Women with invasive cancer having a single excision breast treatment procedure in women aged 45-69 years, 2 years**

| | Number having a single excisional procedure for invasive cancer | Number of invasive cancers having surgical breast procedure | % (95%CI) |
|---|---|---|---|
| *45-49 years* | | | |
| BSWN | 36 | 43 | 83.7 (69.3-93.2) |
| BSCM | 18 | 19 | 94.7 (74.0-99.9) |
| BSAL | | | |
| BSM | 28 | 36 | 77.8 (60.8-89.9) |
| BSCtoC | 16 | 22 | 72.7 (49.8-89.3) |
| BSC | 20 | 29 | 69.0 (49.2-84.7) |
| BSSL | 26 | 34 | 76.5 (58.8-89.3) |
| BSHC | 10 | 13 | 76.9 (46.2-95.0) |
| BSA Total | 174 | 221 | 78.7 (72.7-83.9) |
| *50-69 years* | | | |
| BSWN | 162 | 186 | 87.1 (81.4-91.6) |
| BSCM | 96 | 101 | 95.0 (88.8-98.4) |
| BSAL | | | |
| BSM | 165 | 201 | 82.1 (76.1-87.1) |
| BSCtoC | 141 | 173 | 81.5 (74.9-87.0) |
| BSC | 98 | 126 | 77.8 (69.5-84.7) |
| BSSL | 251 | 287 | 87.5 (83.1-91.1) |
| BSHC | 64 | 73 | 87.7 (77.9-94.2) |
| BSA Total | 1032 | 1,209 | 85.4 (83.2-87.3) |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

Exact Binomial 95% Confidence Intervals presented

### 4.c. Proportion of women with DCIS where no axillary dissection was carried out

*Description:*

The proportion of women who have surgery for DCIS, and do not have immediate reconstruction, who do not have axillary dissection

*Target:*

> 95 %

**Table 4c: Proportion of DCIS women not having axillary dissection, 2 years**

| | Number having surgery for DCIS who do not have an axillary dissection | Number having surgery for DCIS | % (95%CI) | | |
|---|---|---|---|---|---|
| *45-49 years* | | | | | |
| BSWN | 11 | 11 | | | |
| BSCM | 5 | 5 | | | |
| BSAL | | | | | |
| BSM | 9 | 9 | | | |
| BSCtoC | 6 | 6 | | | |
| BSC | 4 | 5 | | | |
| BSSL | 21 | 21 | | | |
| BSHC | 3 | 3 | | | |
| BSA Total | 66 | 67 | 98.5 (92.0-100.0) | | |
| *50-69 years* | | | | | |
| BSWN | 47 | 48 | 97.9 (88.9-99.9) | ✓ | ns |
| BSCM | 28 | 28 | 100.0 (87.7-100.0) | ✓ | ns |
| BSAL | | | | | |
| BSM | 39 | 41 | 95.1 (83.5-99.4) | ✓ | ns |
| BSCtoC | 37 | 37 | 100.0 (90.5-100.0) | ✓ | ns |
| BSC | 32 | 32 | 100.0 (89.1-100.0) | ✓ | ns |
| BSSL | 74 | 75 | 98.7 (92.8-100.0) | ✓ | ns |
| BSHC | 18 | 21 | 85.7 (63.7-97.0) | ✓ | ns |
| BSA Total | 304 | 311 | 97.7 (95.4-99.1) | ✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

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

**Table 4c: Proportion of DCIS women not having axillary dissection, 2 years - detailed information for women having surgery for DCIS**

| | Type of axillary surgery performed | | | | | |
|---|---|---|---|---|---|---|
| | No Axillary Surgery | Sampling | Axillary Level 1, 2 or 3 | Sentinel Node Surgery Only | Not Available / Unknown / Unsure | **Number having surgery for DCIS (less immediate reconstruction)** |
| *45-49 years* | | | | | | |
| BSWN | 5 | 0 | 0 | 6 | 0 | **11** |
| BSCM | 3 | 0 | 0 | 2 | 0 | **5** |
| BSAL | | | | | | |
| BSM | 7 | 1 | 0 | 1 | 0 | **9** |
| BSCtoC | 3 | 0 | 0 | 3 | 0 | **6** |
| BSC | 2 | 1 | 1 | 1 | 0 | **5** |
| BSSL | 19 | 1 | 0 | 1 | 0 | **21** |
| BSHC | 2 | 0 | 0 | 1 | 0 | **3** |
| BSA Total | 47 | 3 | 1 | 16 | 0 | **67** |
| *50-69 years* | | | | | | |
| BSWN | 33 | 1 | 0 | 13 | 1 | **48** |
| BSCM | 13 | 0 | 0 | 15 | 0 | **28** |
| BSAL | | | | | | |
| BSM | 32 | 2 | 2 | 5 | 0 | **41** |
| BSCtoC | 35 | 0 | 0 | 2 | 0 | **37** |
| BSC | 30 | 0 | 0 | 2 | 0 | **32** |
| BSSL | 64 | 4 | 1 | 6 | 0 | **75** |
| BSHC | 16 | 1 | 2 | 1 | 1 | **21** |
| BSA Total | 242 | 9 | 5 | 53 | 2 | **311** |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

### 4.e. Women with DCIS having breast conserving surgery

*Description:*

The proportion of women diagnosed with DCIS of pathological diameter ≤ 20 mm who have Breast Conserving Surgery (BCS).

*Target:*

The majority (>50%) of screen-detected DCIS ≤ 20 mm are treated by BCS

**Table 4e: Proportion of women aged 45-69 years with DCIS having breast conserving surgery (BCS), 2 years**

| | DCIS ≤ 20 mm having BCS | Total DCIS ≤ 20 mm having operation | % (95%CI) | | |
|---|---|---|---|---|---|
| *45-49 years* | | | | | |
| BSWN | 4 | 4 | | | |
| BSCM | 2 | 4 | | | |
| BSAL | | | | | |
| BSM | 5 | 7 | | | |
| BSCtoC | 3 | 3 | | | |
| BSC | 1 | 2 | | | |
| BSSL | 10 | 11 | | | |
| BSHC | 1 | 2 | | | |
| BSA Total | 30 | 37 | 81.1 (64.8-92.0) | | |
| *50-69 years* | | | | | |
| BSWN | 29 | 32 | 90.6 (75.0-98.0) | ✓✓✓ | * |
| BSCM | 11 | 13 | 84.6 (54.6-98.1) | ✓✓✓ | * |
| BSAL | | | | | |
| BSM | 17 | 22 | 77.3 (54.6-92.2) | ✓✓✓ | * |
| BSCtoC | 23 | 29 | 79.3 (60.3-92.0) | ✓✓✓ | * |
| BSC | 24 | 32 | 75.0 (56.6-88.5) | ✓✓✓ | * |
| BSSL | 42 | 45 | 93.3 (81.7-98.6) | ✓✓✓ | * |
| BSHC | 7 | 12 | 58.3 (27.7-84.8) | ✓ | ns |
| BSA Total | 167 | 199 | 83.9 (78.1-88.7) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

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

### 4.f. Women with invasive cancer ≤ 20 mm having breast conserving surgery

*Description:*

The proportion of women diagnosed with invasive cancer without a DCIS component, of pathological diameter ≤ 20 mm, who have Breast Conserving Surgery (BCS).

*Target:*

The majority (>50%) of screen-detected cancers ≤ 20 mm are treated by BCS

**Table 4f: Proportion of women aged 45-69 years with invasive cancer having breast conserving surgery (BCS), 2 years**

| | Invasive cancers ≤20 mm having BCS | Total invasive cancers ≤20 mm having operation | % (95%CI) | | |
|---|---|---|---|---|---|
| *45-49 years* | | | | | |
| BSWN | 6 | 8 | | | |
| BSCM | 1 | 2 | | | |
| BSAL | | | | | |
| BSM | 1 | 2 | | | |
| BSCtoC | 5 | 6 | | | |
| BSC | 0 | 3 | | | |
| BSSL | 2 | 5 | | | |
| BSHC | 0 | 3 | | | |
| BSA Total | 16 | 31 | 51.6 (33.1-69.8) | | |
| *50-69 years* | | | | | |
| BSWN | 32 | 43 | 74.4 (58.8-86.5) | ✓✓✓ | * |
| BSCM | 29 | 33 | 87.9 (71.8-96.6) | ✓✓✓ | * |
| BSAL | | | | | |
| BSM | 43 | 54 | 79.6 (66.5-89.4) | ✓✓✓ | * |
| BSCtoC | 28 | 41 | 68.3 (51.9-81.9) | ✓✓✓ | * |
| BSC | 23 | 25 | 92.0 (74.0-99.0) | ✓✓✓ | * |
| BSSL | 43 | 57 | 75.4 (62.2-85.9) | ✓✓✓ | * |
| BSHC | 11 | 21 | 52.4 (29.8-74.3) | ✓ | ns |
| BSA Total | 218 | 288 | 75.7 (70.3-80.5) | ✓✓✓ | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)
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

## 4.g. Proportion of women with invasive cancer having radiotherapy

*Description:*

The proportion of women diagnosed with invasive cancer, who have breast conserving surgery (BCS), who go on to have Radiotherapy.

*Target:*

≥ 95 %

**Table 4g: Proportion of women aged 45-69 years with invasive cancer having breast conserving surgery (BCS) who had radiotherapy, 2 years**

| | Invasive cancers having BCS who had radiotherapy | Invasive cancers having BCS | % (95%CI) | | |
|---|---|---|---|---|---|
| *45-49 years* | | | | | |
| BSWN | 30 | 32 | 93.8 (79.2-99.2) | | |
| BSCM | 6 | 6 | 100.0 (54.1-100.0) | | |
| BSAL | | | | | |
| BSM | 21 | 21 | 100.0 (83.9-100.0) | | |
| BSCtoC | 10 | 11 | 90.9 (58.7-99.8) | | |
| BSC | 9 | 11 | 81.8 (48.2-97.7) | | |
| BSSL | 18 | 18 | 100.0 (81.5-100.0) | | |
| BSHC | 5 | 5 | 100.0 (47.8-100.0) | | |
| BSA Total | 108 | 119 | 90.8 (84.1-95.3) | | |
| *50-69 years* | | | | | |
| BSWN | 125 | 131 | 95.4 (90.3-98.3) | ✓ | ns |
| BSCM | 57 | 61 | 93.4 (84.1-98.2) | ✓ | ns |
| BSAL | | | | | |
| BSM | 136 | 141 | 96.5 (91.9-98.8) | ✓ | ns |
| BSCtoC | 105 | 106 | 99.1 (94.9-100.0) | ✓ | ns |
| BSC | 81 | 82 | 98.8 (93.4-100.0) | ✓ | ns |
| BSSL | 154 | 158 | 97.5 (93.6-99.3) | ✓ | ns |
| BSHC | 40 | 42 | 95.2 (83.8-99.4) | ✓ | ns |
| BSA Total | 740 | 768 | 96.4 (94.8-97.6) | ✓ | ns |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

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

**4.h. Proportion of women with DCIS having radiotherapy**

*Description:*

The proportion of women diagnosed solely with DCIS, who have breast conserving surgery (BCS), who go on to have Radiotherapy

*Target:*

No target

**Table 4h: Proportion of women aged 45-69 years with DCIS having breast conserving surgery (BCS) who had radiotherapy, 2 years**

| | DCIS having BCS who radiotherapy | DCIS having BCS | % (95%CI) |
|---|---|---|---|
| *45-49 years* | | | |
| BSWN | 7 | 10 | |
| BSCM | 1 | 3 | |
| BSAL | | | |
| BSM | 4 | 5 | |
| BSCtoC | 2 | 4 | |
| BSC | 1 | 2 | |
| BSSL | 12 | 17 | |
| BSHC | 1 | 1 | |
| BSA Total | 31 | 49 | 63.3 (48.3-76.6) |
| *50-69 years* | | | |
| BSWN | 26 | 38 | 68.4 (51.3-82.5) |
| BSCM | 9 | 15 | 60.0 (32.3-83.7) |
| BSAL | | | |
| BSM | 26 | 28 | 92.9 (76.5-99.1) |
| BSCtoC | 10 | 26 | 38.5 (20.2-59.4) |
| BSC | 6 | 27 | 22.2 (8.6-42.3) |
| BSSL | 39 | 54 | 72.2 (58.4-83.5) |
| BSHC | 6 | 11 | 54.5 (23.4-83.3) |
| BSA Total | 135 | 228 | 59.2 (52.5-65.7) |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

Exact binomial 95% Confidence Intervals presented

## 4.i. Proportion of women with invasive cancer having chemotherapy

*Description:*

The proportion of women diagnosed with Invasive Cancer who have Chemotherapy, reported by disease character groups

*Target:*

No target.

**Table 4i: Proportion of women aged 45-49 years with invasive cancer who had chemotherapy by disease character groups, 2 years**

| | Invasive Cancers, having chemotherapy | Invasive cancers | % (95%CI) |
|---|---|---|---|
| *Group 1: Node positive, ER and PR negative* | | | |
| BSWN | 1 | 1 | |
| BSCM | 0 | 0 | |
| BSAL | | | |
| BSM | 2 | 2 | |
| BSCtoC | 1 | 1 | |
| BSC | 0 | 0 | |
| BSSL | 0 | 0 | |
| BSHC | 1 | 1 | |
| BSA Total | 6 | 6 | |
| *Group 2: Node negative, high risk, and ER and PR negative* | | | |
| BSWN | 0 | 1 | |
| BSCM | 0 | 0 | |
| BSAL | | | |
| BSM | 0 | 0 | |
| BSCtoC | 1 | 1 | |
| BSC | 0 | 0 | |
| BSSL | 0 | 1 | |
| BSHC | 0 | 0 | |
| BSA Total | 2 | 5 | |
| *Group 3: Node positive, either ER or PR positive* | | | |
| BSWN | 8 | 13 | 61.5 (31.6-86.1) |
| BSCM | 7 | 7 | 100.0 (59.0-100.0) |
| BSAL | | | |
| BSM | 10 | 14 | 71.4 (41.9-91.6) |
| BSCtoC | 6 | 7 | 85.7 (42.1-99.6) |
| BSC | 6 | 10 | 60.0 (26.2-87.8) |
| BSSL | 9 | 10 | 90.0 (55.5-99.7) |
| BSHC | 5 | 5 | 100.0 (47.8-100.0) |
| BSA Total | 59 | 77 | 76.6 (65.6-85.5) |
| *Group 4: Node negative, high risk, either ER or PR positive* | | | |
| BSWN | 2 | 13 | 15.4 (1.9-45.4) |
| BSCM | 0 | 8 | 0.0 (0.0-36.9) |
| BSAL | | | |
| BSM | 3 | 14 | 21.4 (4.7-50.8) |
| BSCtoC | 3 | 6 | 50.0 (11.8-88.2) |
| BSC | 4 | 10 | 40.0 (12.2-73.8) |
| BSSL | 3 | 18 | 16.7 (3.6-41.4) |
| BSHC | 4 | 5 | 80.0 (28.4-99.5) |
| BSA Total | 21 | 82 | 25.6 (16.6-36.4) |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

Exact binomial 95% Confidence Intervals presented

NB: A high risk tumour is one that has either a pathological tumour size ≥ 2cm and/or is grade 2-3 (histologic and/or nuclear grade)

**Table 4i: Proportion of women aged 50-69 years with invasive cancer who had chemotherapy by disease character groups, 2 years**

| | Invasive Cancers, having chemotherapy | Invasive cancers | % (95%CI) |
|---|---|---|---|
| *Group 1: Node positive, ER and PR negative* | | | |
| BSWN | 5 | 5 | 100.0 (47.8-100.0) |
| BSCM | 6 | 6 | 100.0 (54.1-100.0) |
| BSAL | | | |
| BSM | 7 | 8 | 87.5 (47.3-99.7) |
| BSCtoC | 4 | 5 | 80.0 (28.4-99.5) |
| BSC | 7 | 7 | 100.0 (59.0-100.0) |
| BSSL | 6 | 6 | 100.0 (54.1-100.0) |
| BSHC | 2 | 2 | 100.0 (15.8-100.0) |
| BSA Total | 38 | 41 | 92.7 (80.1-98.5) |
| *Group 2: Node negative, high risk, and ER and PR negative* | | | |
| BSWN | 15 | 19 | 78.9 (54.4-93.9) |
| BSCM | 5 | 11 | 45.5 (16.7-76.6) |
| BSAL | | | |
| BSM | 4 | 8 | 50.0 (15.7-84.3) |
| BSCtoC | 3 | 10 | 30.0 (6.7-65.2) |
| BSC | 6 | 14 | 42.9 (17.7-71.1) |
| BSSL | 13 | 27 | 48.1 (28.7-68.1) |
| BSHC | 7 | 11 | 63.6 (30.8-89.1) |
| BSA Total | 57 | 106 | 53.8 (43.8-63.5) |
| *Group 3: Node positive, either ER or PR positive* | | | |
| BSWN | 7 | 22 | 31.8 (13.9-54.9) |
| BSCM | 8 | 15 | 53.3 (26.6-78.7) |
| BSAL | | | |
| BSM | 30 | 48 | 62.5 (47.4-76.0) |
| BSCtoC | 17 | 38 | 44.7 (28.6-61.7) |
| BSC | 13 | 20 | 65.0 (40.8-84.6) |
| BSSL | 31 | 57 | 54.4 (40.7-67.6) |
| BSHC | 13 | 17 | 76.5 (50.1-93.2) |
| BSA Total | 121 | 226 | 53.5 (46.8-60.2) |
| *Group 4: Node negative, high risk, either ER or PR positive* | | | |
| BSWN | 1 | 64 | 1.6 (0.0-8.4) |
| BSCM | 3 | 37 | 8.1 (1.7-21.9) |
| BSAL | | | |
| BSM | 7 | 78 | 9.0 (3.7-17.6) |
| BSCtoC | 6 | 74 | 8.1 (3.0-16.8) |
| BSC | 1 | 36 | 2.8 (0.1-14.5) |
| BSSL | 6 | 126 | 4.8 (1.8-10.1) |
| BSHC | 5 | 22 | 22.7 (7.8-45.4) |
| BSA Total | 29 | 462 | 6.3 (4.2-8.9) |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)

Exact binomial 95% Confidence Intervals presented

NB: A high risk tumour is one that has either a pathological tumour size ≥ 2cm and/or is grade 2-3 (histologic and/or nuclear grade)

## 4.j. Proportion of women with invasive cancer having endocrine therapy

*Description:*

The proportion of women diagnosed with Invasive Cancer who have Endocrine therapy reported by disease characteristic groups

*Target:*

No target

**Table 4j: Proportion of women aged 45-49 years diagnosed with invasive cancer who had endocrine therapy by disease character groups, 2 years**

| | Invasive Cancers, having endocrine therapy | Invasive cancers | % (95%CI) |
|---|---|---|---|
| *Group 1: Node positive, and ER or PR positive* | | | |
| BSWN | 12 | 13 | 92.3 (64.0-99.8) |
| BSCM | 7 | 7 | 100.0 (59.0-100.0) |
| BSAL | | | |
| BSM | 14 | 14 | 100.0 (76.8-100.0) |
| BSCtoC | 6 | 7 | 85.7 (42.1-99.6) |
| BSC | 9 | 10 | 90.0 (55.5-99.7) |
| BSSL | 9 | 10 | 90.0 (55.5-99.7) |
| BSHC | 5 | 5 | 100.0 (47.8-100.0) |
| BSA Total | 69 | 77 | 89.6 (80.6-95.4) |
| *Group 2: Node negative, high risk, and ER or PR positive* | | | |
| BSWN | 11 | 13 | 84.6 (54.6-98.1) |
| BSCM | 4 | 8 | 50.0 (15.7-84.3) |
| BSAL | | | |
| BSM | 10 | 14 | 71.4 (41.9-91.6) |
| BSCtoC | 6 | 6 | 100.0 (54.1-100.0) |
| BSC | 8 | 10 | 80.0 (44.4-97.5) |
| BSSL | 8 | 18 | 44.4 (21.5-69.2) |
| BSHC | 5 | 5 | 100.0 (47.8-100.0) |
| BSA Total | 58 | 82 | 70.7 (59.6-80.3) |
| *Group 3: Node negative, low risk and ER or PR positive* | | | |
| BSWN | 13 | 26 | 50.0 (29.9-70.1) |
| BSCM | 5 | 12 | 41.7 (15.2-72.3) |
| BSAL | | | |
| BSM | 14 | 20 | 70.0 (45.7-88.1) |
| BSCtoC | 9 | 12 | 75.0 (42.8-94.5) |
| BSC | 16 | 18 | 88.9 (65.3-98.6) |
| BSSL | 9 | 23 | 39.1 (19.7-61.5) |
| BSHC | 7 | 7 | 100.0 (59.0-100.0) |
| BSA Total | 79 | 129 | 61.2 (52.3-69.7) |

Note: Data for BSAL is missing the table above because BSAL was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3).

Exact binomial 95% Confidence Intervals presented

NB: A low risk tumour is one that has a pathological tumour size < 2cm and is grade 1 (histologic and/or nuclear grade). A high risk tumour is one that has either a pathological tumour size ≥ 2cm and/or is grade 2-3 (histologic and/or nuclear grade)

**Table 4j: Proportion of women aged 50-69 years diagnosed with invasive cancer who had endocrine therapy by disease character groups, 2 years**

| | Invasive Cancers, having endocrine therapy | Invasive cancers | % (95%CI) |
|---|---|---|---|
| *Group 1: Node positive, and ER or PR positive* | | | |
| BSWN | 22 | 22 | 100.0 (84.6-100.0) |
| BSCM | 14 | 15 | 93.3 (68.1-99.8) |
| BSAL | | | |
| BSM | 47 | 48 | 97.9 (88.9-99.9) |
| BSCtoC | 35 | 38 | 92.1 (78.6-98.3) |
| BSC | 19 | 20 | 95.0 (75.1-99.9) |
| BSSL | 52 | 57 | 91.2 (80.7-97.1) |
| BSHC | 17 | 17 | 100.0 (80.5-100.0) |
| BSA Total | 212 | 226 | 93.8 (89.8-96.6) |
| *Group 2: Node negative, high risk, and ER or PR positive* | | | |
| BSWN | 53 | 64 | 82.8 (71.3-91.1) |
| BSCM | 19 | 37 | 51.4 (34.4-68.1) |
| BSAL | | | |
| BSM | 72 | 78 | 92.3 (84.0-97.1) |
| BSCtoC | 56 | 74 | 75.7 (64.3-84.9) |
| BSC | 35 | 36 | 97.2 (85.5-99.9) |
| BSSL | 72 | 126 | 57.1 (48.0-65.9) |
| BSHC | 18 | 22 | 81.8 (59.7-94.8) |
| BSA Total | 344 | 462 | 74.5 (70.2-78.4) |
| *Group 3: Node negative, low risk and ER or PR positive* | | | |
| BSWN | 63 | 136 | 46.3 (37.7-55.1) |
| BSCM | 19 | 64 | 29.7 (18.9-42.4) |
| BSAL | | | |
| BSM | 127 | 136 | 93.4 (87.8-96.9) |
| BSCtoC | 79 | 116 | 68.1 (58.8-76.4) |
| BSC | 72 | 83 | 86.7 (77.5-93.2) |
| BSSL | 94 | 190 | 49.5 (42.2-56.8) |
| BSHC | 25 | 42 | 59.5 (43.3-74.4) |
| BSA Total | 503 | 810 | 62.1 (58.7-65.5) |

Note: Data for BSAL is missing the table above because BSAL was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3)
Exact binomial 95% Confidence Intervals presented
NB: A low risk tumour is one that has a pathological tumour size < 2cm and is grade 1 (histologic and/or nuclear grade). A high risk tumour is one that has either a pathological tumour size ≥ 2cm and/or is grade 2-3 (histologic and/or nuclear grade)

## 5. PROVISION OF AN APPROPRIATE AND ACCEPTABLE SERVICE

### 5.e. First surgical treatment within 20 working days

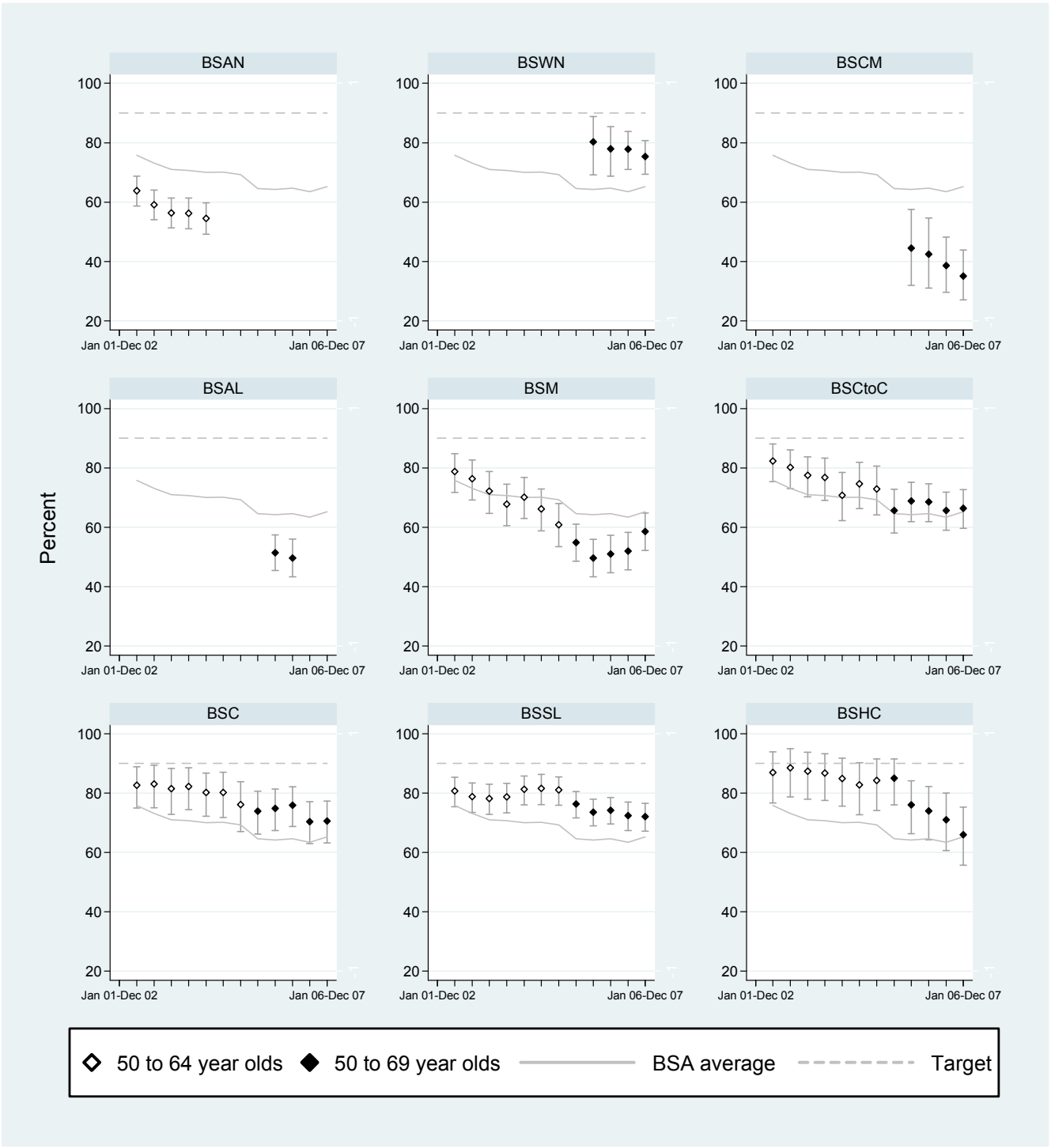
*Description:*
The time from when a woman receives her final diagnostic results to the date of her first surgical treatment
*Target:*
90% of women should normally receive their first surgical treatment within 20 working days of receiving their final diagnostic results.

**Table 5.e: First surgical treatment within 20 working days in women aged 45-69 years, 2 years**

| | First surgical treatment within 20 working days | Total having surgery | % (95%CI) | | |
|---|---|---|---|---|---|
| *45-49 years* | | | | | |
| BSWN | 40 | 59 | 67.8 (54.4-79.4) | | |
| BSCM | 6 | 26 | 23.1 (9.0-43.6) | | |
| BSAL | | | | | |
| BSM | 28 | 50 | 56.0 (41.3-70.0) | | |
| BSCtoC | 22 | 28 | 78.6 (59.0-91.7) | | |
| BSC | 24 | 36 | 66.7 (49.0-81.4) | | |
| BSSL | 43 | 58 | 74.1 (61.0-84.7) | | |
| BSHC | 10 | 16 | 62.5 (35.4-84.8) | | |
| BSA Total | 194 | 307 | 63.2 (57.5-68.6) | | |
| *50-69 years* | | | | | |
| BSWN | 180 | 239 | 75.3 (69.3-80.6) | ××× | * |
| BSCM | 47 | 134 | 35.1 (27.0-43.8) | ××× | * |
| BSAL | | | | | |
| BSM | 144 | 246 | 58.5 (52.1-64.8) | ××× | * |
| BSCtoC | 142 | 214 | 66.4 (59.6-72.7) | ××× | * |
| BSC | 120 | 170 | 70.6 (63.1-77.3) | ××× | * |
| BSSL | 265 | 368 | 72.0 (67.1-76.5) | ××× | * |
| BSHC | 64 | 97 | 66.0 (55.7-75.3) | ××× | * |
| BSA Total | 1,018 | 1,562 | 65.2 (62.8-67.5) | ××× | * |

Note: Where data are missing in the table above this reflects that the lead provider was unable to meet the 90% threshold data completion requirement (please refer to table 3a.3).
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 5e: Proportion of women receiving timely surgical treatment, 2 years**



## APPENDIX A: GLOSSARY OF TERMS

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

**Assessment rate**
Number of women referred to assessment as a percentage of all women screened

**Asymptomatic**
Women who do not have symptoms of breast cancer

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

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

**Benign biopsy weight**
The weight of the open biopsy specimen presented to the pathologist

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

**BSA**
BreastScreen Aotearoa

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

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

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

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

**High risk invasive breast cancer**
Having at least one of the following features:

a. pT>2cm (pathological tumour size

and/or

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

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

**Positive predictive value**
The proportion of women screened positive who are ultimately diagnosed as having cancer

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

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

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

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

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

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

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

**APPENDIX B: Map of BSA Lead Provider Regions**