

**BreastScreen Aotearoa**

**INDEPENDENT MONITORING REPORT  
JANUARY-JUNE, 2007**

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# BreastScreen Aotearoa Independent Monitoring Report

(January - June 2007)

## Introduction

This cover sheet replaces the BreastScreen Aotearoa (BSA) January to June 2007 Independent Monitoring Report executive summary.

This cover sheet includes:

- comments on selected indicators for BSA programme screened women aged 50-69 years<sup>1</sup> as reported in the BSA January to June 2007 Independent Monitoring Report, for the BSA programme overall<sup>2</sup> and where appropriate for the following five Lead Providers<sup>3</sup>; BreastScreen Midland (BSM), BreastScreen Coast to Coast (BSCtoC), BreastScreen Central (BSC), BreastScreen South Limited (BSSL) and BreastScreen HealthCare (BSHC).
- recommendations and comments made by BSA Advisory Group members at their meeting on 03 March 2008, regarding the BSA January to June 2007 Independent Monitoring Report.

## Coverage

The BSA biennial coverage for women aged 50-69 years for the period July 2005 to June 2007 was 61.2%. All Lead Providers with the exception of BSSL (77.8%) were significantly lower than the 70% target.

Biennial coverage was significantly lower for Māori and Pacific populations (43.5% and 43.8% respectively) compared with other ethnic groups (63.1%). There was wide variation in coverage by Lead Provider for Māori and Pacific groups, ranging from 35.6% (BSCtoC) to 66.4% (BSSL) for Māori and, from 33.8% (BSCtoC) to 68.2% (BSSL) for Pacific.

## Routine re-screening

Overall, BSA re-screen rates for women aged 50-69 years within 20-24 and within 27 months exceeded the targets for both 6 months and biennial periods.

Within 27 months the proportion of women aged 50-69 years re-screened for the six-month period was 86.8% and 85.6% for the biennial period (target value >85%).

Within 20-24 months the proportion of women aged 50-69 years re-screened for the six-month period was 85.5% and 80.6% for the biennial period (target value >75%). While BSSL achieved a biennial re-screen rate nearly 20 percentage points above the target value, BSCtoC and BSHC biennial re-screen rates were around 10 percentage points below the target value.

## Technical recall

The biennial BSA programme percentage of women screened aged 50-69 years having a technical recall for fixed sites (0.2%) was significantly below the target of <0.5%. However, the BSA programme percentage for mobile sites (3.7%) was significantly above the target of <3%. Three Lead Providers (BSM, BSCtoC and BSC) had estimates significantly above the target value for mobile sites.

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<sup>1</sup> As there are no targets for women aged 45-49 years this age group is not commented on in the BSA January to June 2007 Independent Monitoring Report.

<sup>2</sup> Data for BSWN, BSAL and BSCM is included in the BSA Total estimates.

<sup>3</sup> As data for BSWN, BSAL and BSCM does not yet cover a full 24-month screening period, no comments for these three Lead Providers have been included in the BSA January to June 2007 Independent Monitoring Report.

## Technical reject rate

The biennial BSA programme rate of rejected films as a percentage of total films taken for women aged 50-69 years reached the target of <3% for both fixed (1.1%) and mobile (0.6%) sites, with all five Lead Providers being > 10% below the target value.

## Referral to assessment rate

For initial screens the biennial BSA programme referral to assessment rate for women aged 50-69 years screened was 8.5%. All Lead Providers met the expected target value of <10% for the biennium, but not the desired value of <7%. However, BSSL achieved a biennial referral to assessment rate of 7% for initial screens.

For subsequent screens, the overall BSA percentage (2.9%) and all five Lead Providers met the desired value of <4%.

## Detection of DCIS and Invasive Breast Cancer

For initial screens the biennial BSA programme DCIS and invasive detection rate for women aged 50-69 years at 9.4 per 1,000 was on target ( $\geq 6.9$  per 1,000). Four Lead Providers were on target and BSSL (10.7%) was significantly above the target.

For subsequent screens the BSA programme detection rate at 5.3 per 1,000 was significantly above target ( $\geq 3.45$  per 1,000), as were estimates for all Lead Providers, except for BSHC which was not significantly different from the target.

## Invasive cancers $\leq 10$ mm

For initial screens of women aged 50-69 years, the BSA proportion of screen detected invasive cancers  $\leq 10$ mm in size for the biennial period (27.9%) was not statistically different from the target of  $\geq 25\%$ . For subsequent screens of women aged 50-69 years, the BSA biennial proportion of 38.1% was statistically higher than the target of  $\geq 30\%$ .

For initial screens of women aged 50-69 years, the biennial BSA programme rate of 17.9 per 10,000 screens was not significantly different from the target of  $\geq 17.3$  per 10,000 screens. For subsequent screens of women aged 50-69 years, the BSA biennial rate of 16.7 per 10,000 screens was statistically higher than the target value of  $\geq 10.45$  per 10,000 screens.

## Invasive cancers < 15 mm

For initial screens of women aged 50-69 years, the BSA proportion (45.3%) of screen detected invasive cancers <15mm in size for the biennial period was not statistically different from the target of >50%. For subsequent screens of women aged 50-69 years, the BSA biennial proportion of screen detected invasive cancers <15mm in size for the biennial period 55.8 %, was statistically higher than the target of >50%.

For initial screens of women aged 50-69 years, the biennial BSA programme rate of 29.1 per 10,000 screens was on target and not statistically different from the target value of >34.5 per 10,000 screens. For subsequent screens, the biennial BSA programme rate of 24.5 per 10,000 screens was statistically higher than the target value of > 17.3.

## Treatment

The BSA biennial (October 04 to September 06) proportion of woman aged 50-69 years with invasive cancers >1 mm having a surgical axillary procedure was 96.5%, which was not statistically different from the target value of 95%.

The BSA biennial (October 04 to September 06) proportion of women aged 50-69 years who had surgery for DCIS and did not have an axillary dissection, was 90.3%, which was statistically below the target of >95%.

Biennial (October 04 to September 06) treatment target values for woman aged 50-69 years were met for DCIS cases and invasive cases  $\leq$  20 mm having breast conserving surgery (BCS). The BSA proportion of screen detected DCIS having BCS was 84.2%, and for invasive cancers having BCS was 77.5%, both of which were greater than the target value of >50%.

The BSA biennial (October 04 to September 06) proportion of women aged 50-69 years diagnosed with invasive cancer who had BCS, and went on to have radiotherapy was 95.5%, which was not statistically different from the target of  $\geq$  95%.

### **Time taken from screening visit to first offer of an assessment**

The biennial BSA programme percentage of women aged 50-69 years offered a first assessment appointment within 15 working days was 77%. This percentage was statistically below the target of 90% and >10% different in magnitude. The only Lead Provider above target was BSSL (93.0%).

### **Women having an Open Biopsy within 15 working days**

The biennial BSA programme percentage of women aged 50-69 years having an open biopsy within 15 working days was 66.1%. This biennial proportion was statistically below the target of at least 90%. Once again the only Lead Provider above target was BSSL (94.6%).

### **Time taken from final Diagnostic Biopsy to reporting assessment results**

The biennial BSA programme percentage of women aged 50-69 years receiving final diagnostic biopsy results within 5 working days (of all those receiving final diagnostic results) was 85.7%. This biennial rate was in line with the target value of 90% with a difference of <5% in magnitude.

### **First surgical treatment within 20 working days**

For the period October 04-September 06 the BSA programme percentage of women aged 50-69 years receiving their first surgical treatment within 20 days of receiving their final diagnostic results was 64.2%. This rate is statistically below the target value of 90% with a difference of >10% in magnitude. All five Lead Providers were statistically below the target value for this indicator and none had the target of 90% in their confidence intervals.

### **Recommendations and comments from the BSA Advisory Group**

1. BSA coverage is consistently low and the programme is not achieving the primary programme goal of 70% coverage. The BSA Advisory Group strongly suggests that further improvement to coverage is unlikely without seriously addressing this matter. Until BSA has access to a population register or can somehow identify eligible women who are not enrolled, coverage will not improve.
2. Coverage for Maori and Pacific Island women is significantly lower than for other women. BSA is not achieving its strategic goal of reducing inequalities, and providers and the NSU must address this urgently.
3. BSA remains a quality Programme. Of the 46 indicators, the Programme as a whole meets 41.
4. The BSA Advisory Group wish to note the continuing excellent results of BreastScreen South Limited in meeting and maintaining the coverage target.

**Members of the BSA Advisory Group**

Pru Wood	BreastCare Nurse
Barbara Beckford	Consumer Reference Group Representative
Scott McWilliams	Data Manager
Dr Richard Taylor	Epidemiologist
Dr Mary Obele	GP Representative
Lillian Ward	Health Promoter
Mhairi Porteous	Lead Provider Manager
Dr Sue Crengle	Maori Reference Group Representative
Dr Glenys Round	Medical Oncologist
Jeremy Nicoll	Medical Physicist
Marie-Therese Borland	Medical Radiation Technologist
Dr Juliet Walker	Pacific Representative
Dr Reena Ramsaroop	Pathologist
Dr Glyn Thomas	Radiologist
David Moss	Surgeon
Margreet Simpson	Treatment Data Collector

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## **FOREWORD: BSA MONITORING PROCESS**

Data are sent monthly from the eight BreastScreen Aotearoa Lead Providers (LPs) to the New Zealand Health Information Service of the Ministry of Health (NZHIS). The data are checked at NZHIS, amalgamated into a single file and sent to the National Screening Unit (NSU). The NSU runs further checks, encrypts the National Health Index (NHI) numbers and produces 6-monthly data and tables of performance indicators by lead provider.

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 further comment and a final version is produced. The NSU publishes the final report and distributes to providers.

This BSA Independent Monitoring Report was reviewed by the BSA Advisory Group on 26 November 2007.

## **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. This report has aggregated the upper age group and presents data for women aged 50-69 years as the target age group.

Data for women aged 45-49 years is presented separately. However, 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 age group is documented throughout the report, but there are no specific recommendations for this age group.

An additional development from the previous reporting period, which continues to impact upon data for the current reporting period, was the restructuring of BreastScreen Auckland & North (BSAN) into three Lead Providers BreastScreen Auckland Limited (BSAL), BreastScreen Counties Manukau (BSCM), and BreastScreen Waitemata Northland (BSWN). This occurred during the July to December (2005) reporting period, with BSCM beginning screens in September 2005. Data for all indicators are presented for these 3 new Lead Providers, however, as the data represent an incomplete biennium, only cumulative data are presented, without point estimates, 95% confidence intervals, or significance testing.

Interpreting trends in this report is problematic as indicators for a comparable age group are not available for periods prior to Jul-Dec, 2006. Trend data are still presented for women age 50-64 years (as per usual) for the program 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 current reporting period: BSAL, BSCM, BSWN. The following table provides a listing of Lead Providers clarifying these changes.

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

## Trends in program indicators

As noted above, this report presents trend data for women 50-64 years from the first reporting period in 2001 to June 2007. For the current reporting period a new time series has been established for women aged 50-69 years, which 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 case numbers), trend data has been presented for: (1) key program indicators relating to participation, referral to assessment, and cancer detection; and (2) for other indicators where noteworthy trends were evident. Trend data has not been presented for women aged 45-49 years.

## Population denominators

Population denominators for this report are based on smoothed estimates (by age group and ethnic group). Six-monthly population denominators are estimates based on weighted interpolation using annual population projections provided for each year. 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 the previous 6 months - 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

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  $\geq 5\%$  that are statistically significant based on CI's 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 are indicated by '✓✓✓' if better than the target or 'xxx' if worse than the target.



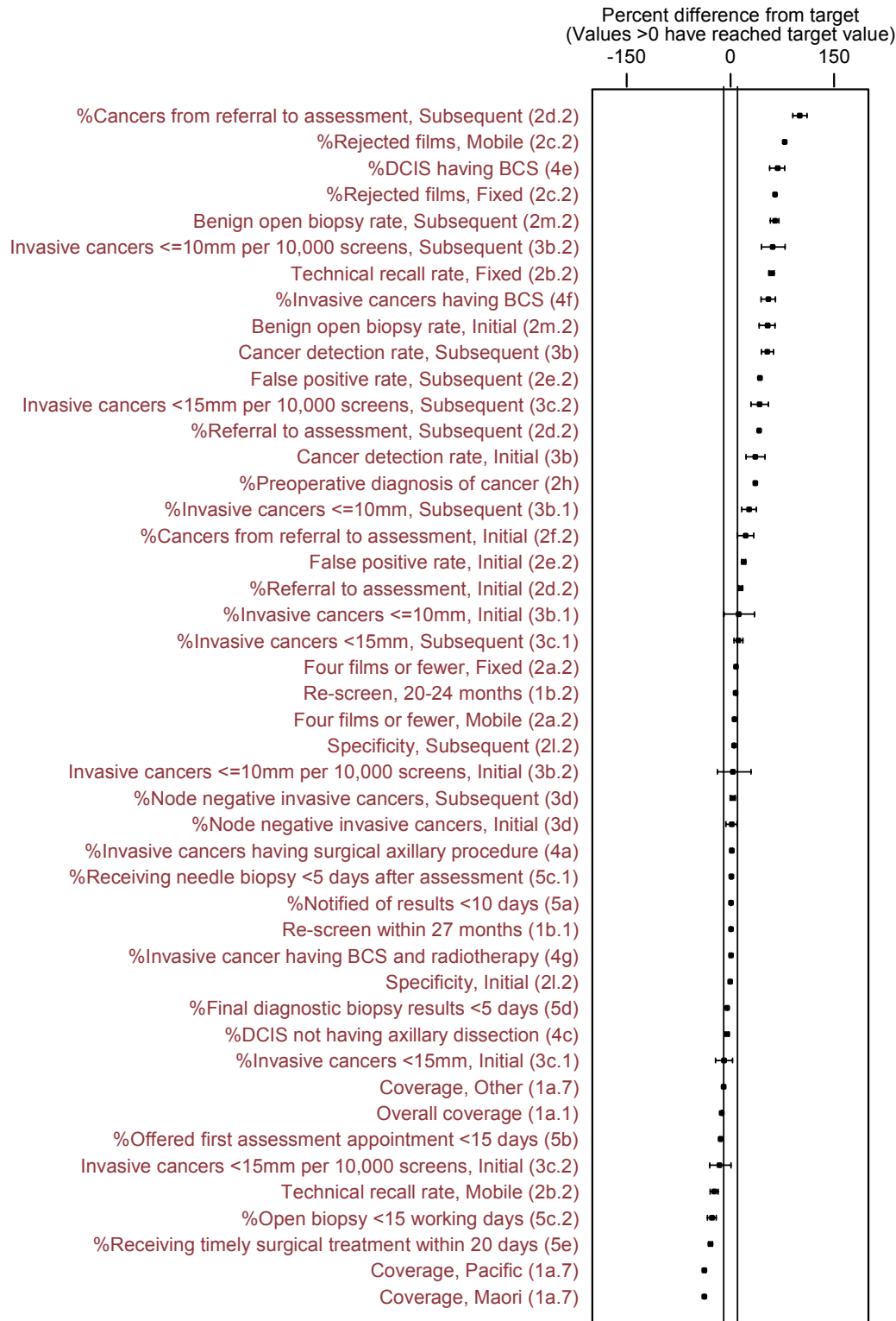
Differences of <5% (based on the point estimate and 95% confidence interval) are indicated by '✓' and are considered 'on target'. For each indicator, differences between the observed value and the target value need to be interpreted in the context and meaning of the indicator under investigation. If the standard is 80% then a 10% difference would contain values ranging from 72%-88%. If the standard is 10%, then a 10% difference would contain values ranging from 9%-11%. As a guide, slight differences can be considered to be of a relative magnitude of 0-5%, moderate differences of 5-9%, and large differences >10%.

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

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

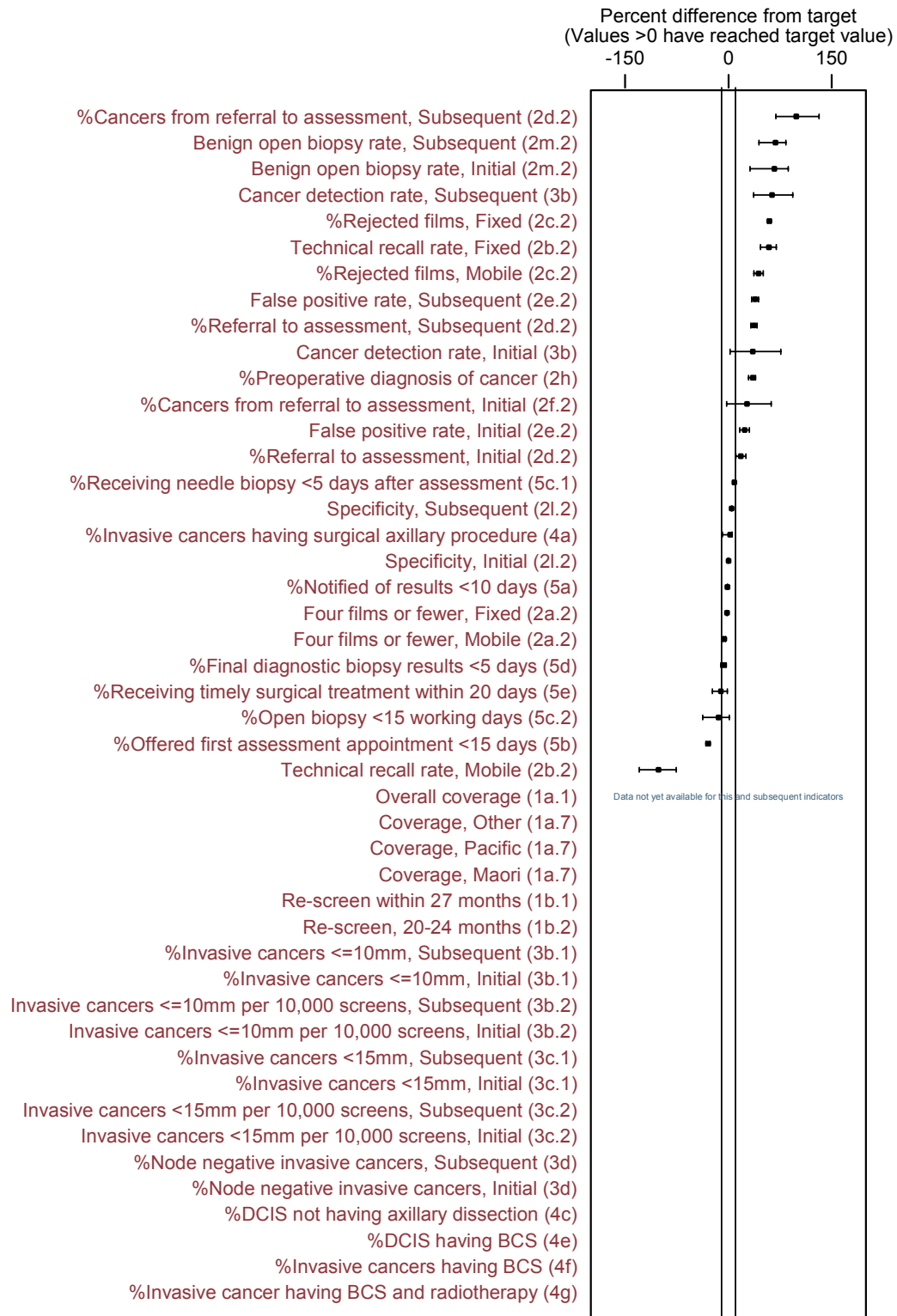
AT A GLANCE: BIENNIAL INDICATORS FOR WOMEN 50-69 YEARS

Figure 1: Biennial indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSA for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets)



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

**Figure 2: Indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSWN for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets). Note: These data are for an incomplete biennium following re-distribution of BSWN areas.**



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

**Figure 3: Indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSCM for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets). Note: These data are for an incomplete biennium following re-distribution of BSAN areas.**



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

**Figure 4: Indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSAL for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets). Note: These data are for an incomplete biennium following re-distribution of BSAN areas.**



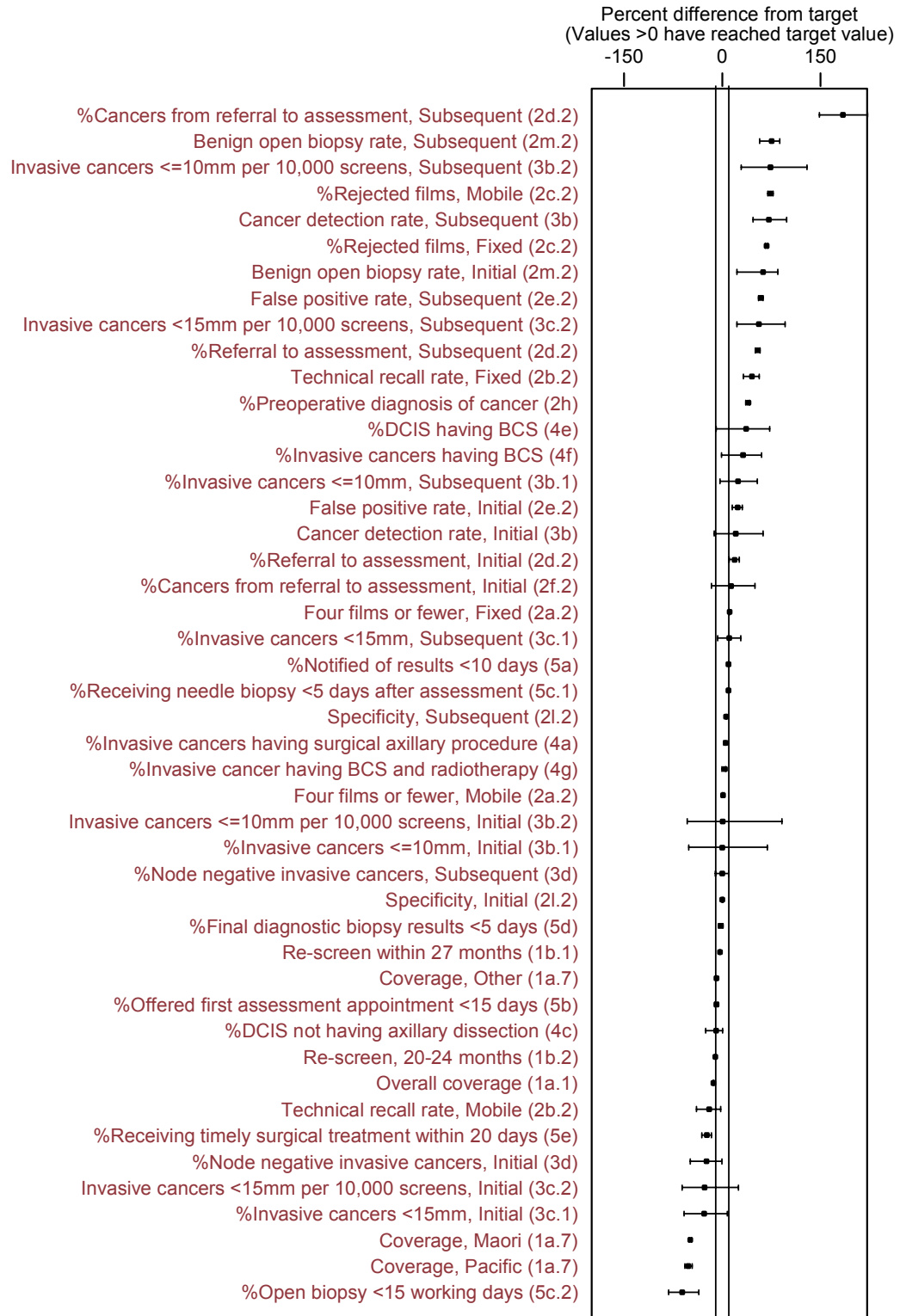
**NB:** The vertical line represent a  $\pm 10\%$  difference between the observed value and the target value

**Figure 5: Biennial indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSM for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets)**



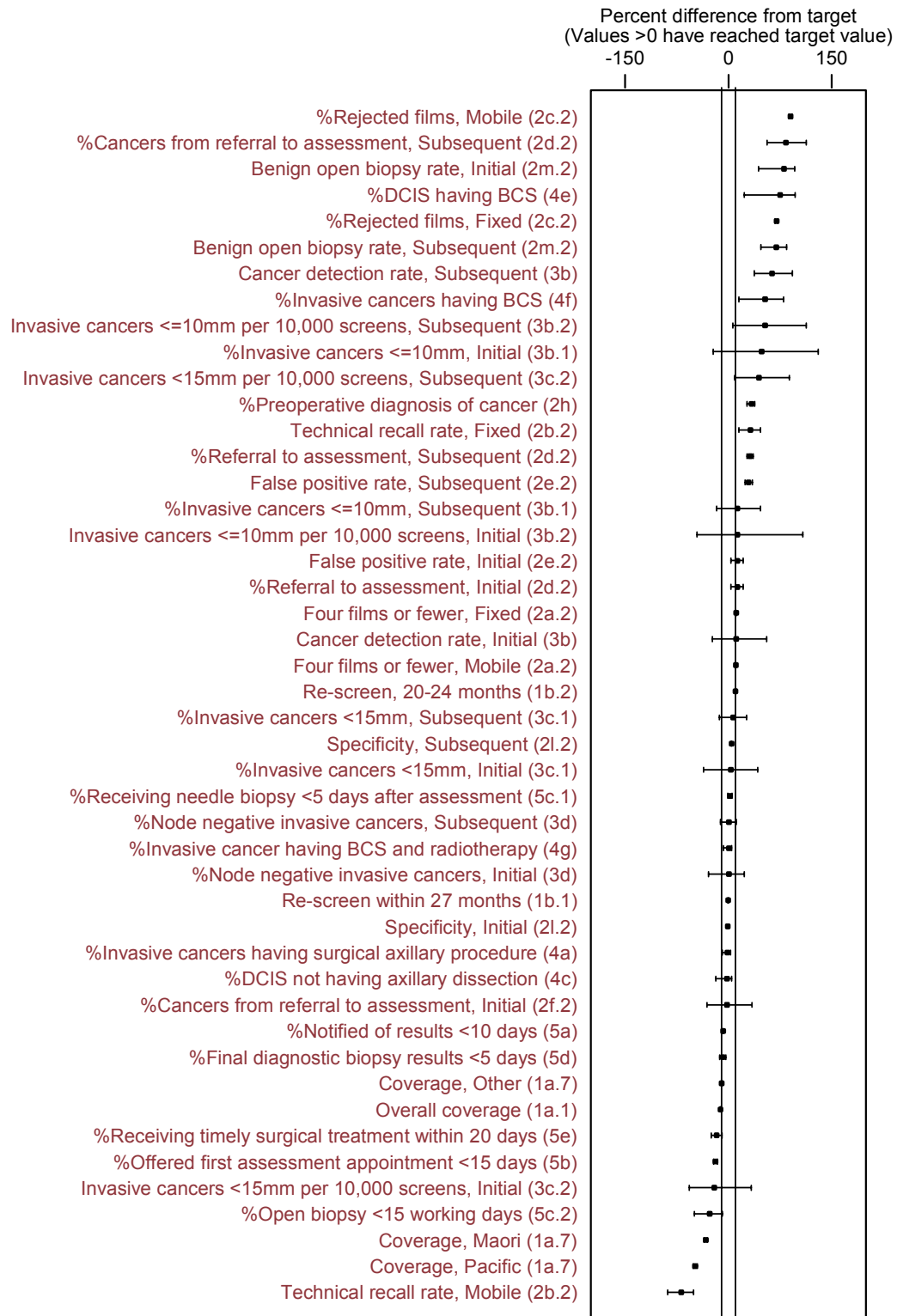
NB: The vertical line represent a  $\pm 10\%$  difference between the observed value and the target value

**Figure 6: Biennial indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSCtoC for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets)**



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

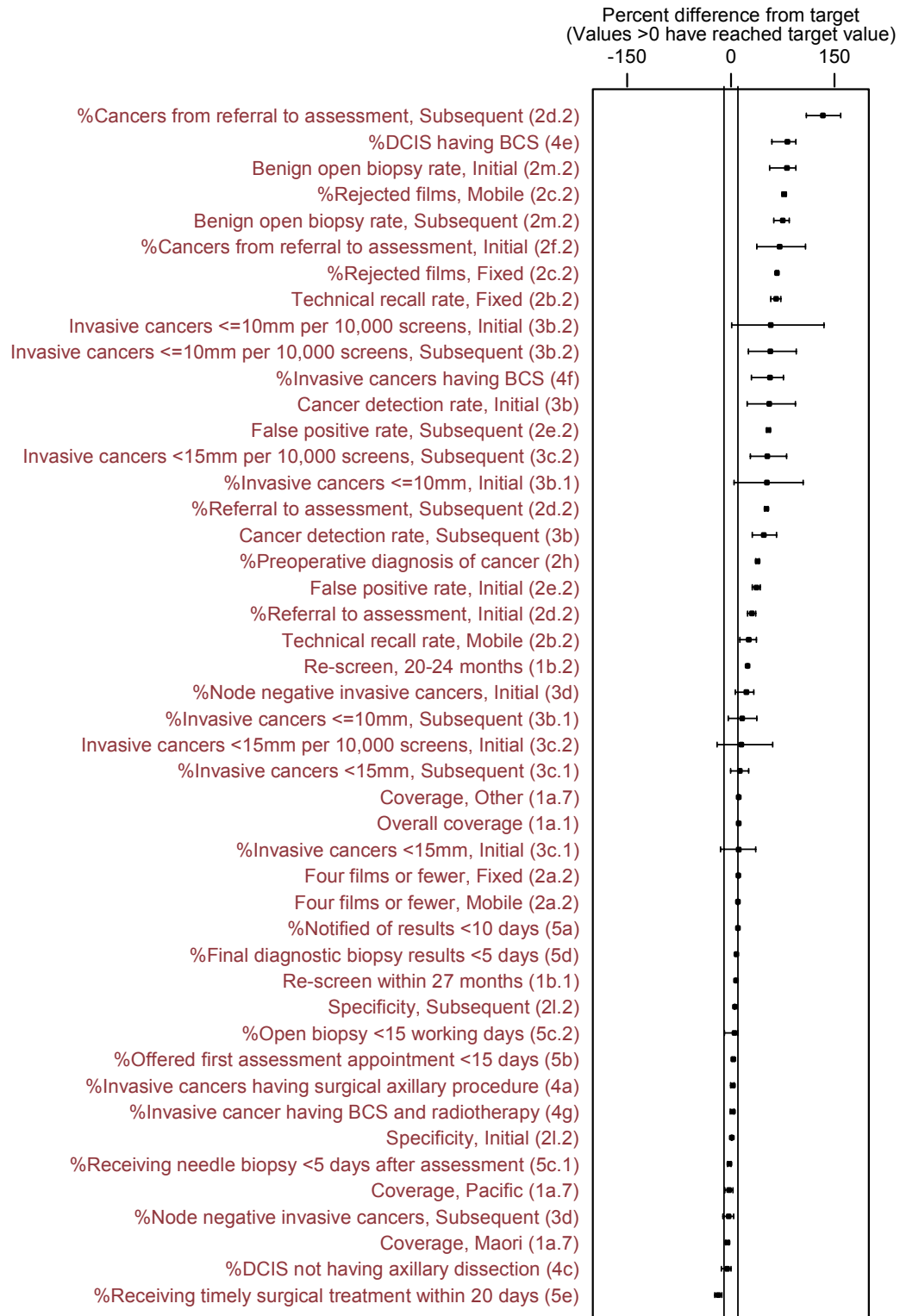
**Figure 7: Biennial indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSC for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets)**



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

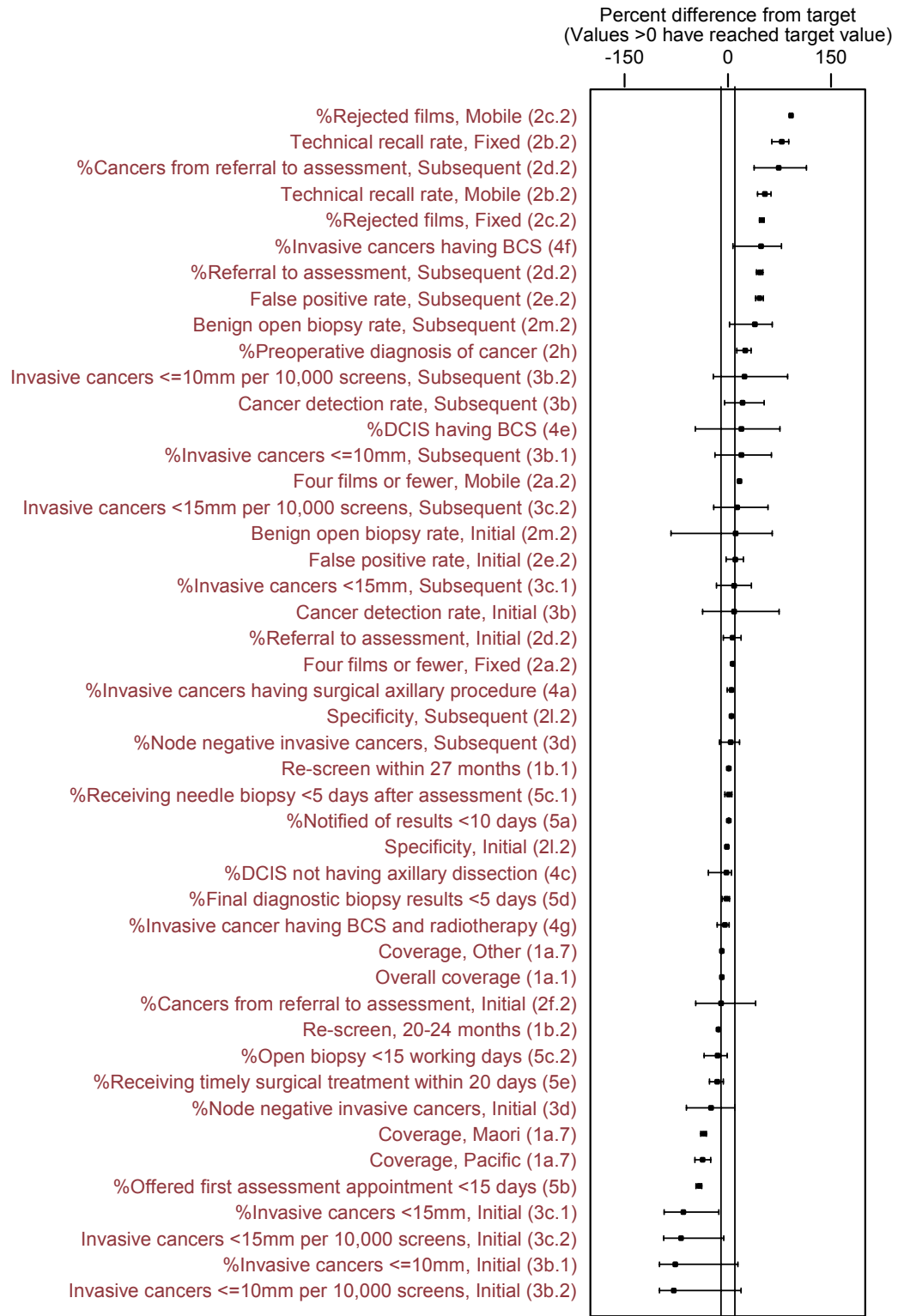


**Figure 8: Biennial indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSS for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets)**



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

**Figure 9: Biennial indicators ‘on target’, ‘better than target’, or ‘worse than target’ for BSHC for the reporting period Jan-Jun, 2007 as measured by percent difference between observed and target value (Table reference in brackets)**



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

# 1. COVERAGE

## 1.a. 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 program in the most recent 24-month period

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

	Last 6 months			Last 2 years				
	Number of women screened	Eligible Population	% (95%CI)	Number of women screened	Eligible Population	% (95%CI)		
<i>45-49 years</i>								
BSWN	3,293	25,260	13.0 (12.6-13.5)	8,118	25260			
BSCM	2,262	15,255	14.8 (14.3-15.4)	3,612	15255			
BSAL	1,520	15,370	9.9 (9.4-10.4)	4,833	15370			
BSM	2,467	23,590	10.5 (10.1-10.9)	9,884	23,590	41.9 (41.3-42.5)		
BSCtoC	2,439	20,035	12.2 (11.7-12.6)	7,848	20,035	39.2 (38.5-39.9)		
BSC	1,774	16,950	10.5 (10.0-10.9)	6,762	16,950	39.9 (39.2-40.6)		
BSS	4,308	26,290	16.4 (15.9-16.8)	21,774	26,290	82.8 (82.4-83.3)		
BSHC	800	10,890	7.3 (6.9-7.9)	4,152	10,890	38.1 (37.2-39.0)		
BSA Total	18,863	153,640	12.3 (12.1-12.4)	66,983	153,640	43.6 (43.3-43.8)		
<i>50-69 years</i>								
BSWN	10,656	68,335	15.6 (15.3-15.9)	29,460	68335			
BSCM	5,967	40,660	14.7 (14.3-15.0)	19,012	40660			
BSAL	4,587	38,200	12.0 (11.7-12.3)	29,201	38200			
BSM	9,368	67,755	13.8 (13.6-14.1)	40,342	67,755	59.5 (59.2-59.9)	xxx	*
BSCtoC	9,531	57,340	16.6 (16.3-16.9)	34,664	57,340	60.5 (60.1-60.9)	xxx	*
BSC	8,263	45,395	18.2 (17.8-18.6)	28,160	45,395	62.0 (61.6-62.5)	xxx	*
BSS	19,023	76,075	25.0 (24.7-25.3)	59,177	76,075	77.8 (77.5-78.1)	✓✓✓	*
BSHC	4,897	30,835	15.9 (15.5-16.3)	19,675	30,835	63.8 (63.3-64.3)	xx	*
BSA Total	72292	424595	17.0 (16.9-17.1)	259,691	424,595	61.2 (61.0-61.3)	xxx	*

Note: Eligible population is based on the 2006 projected population. Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

\* 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

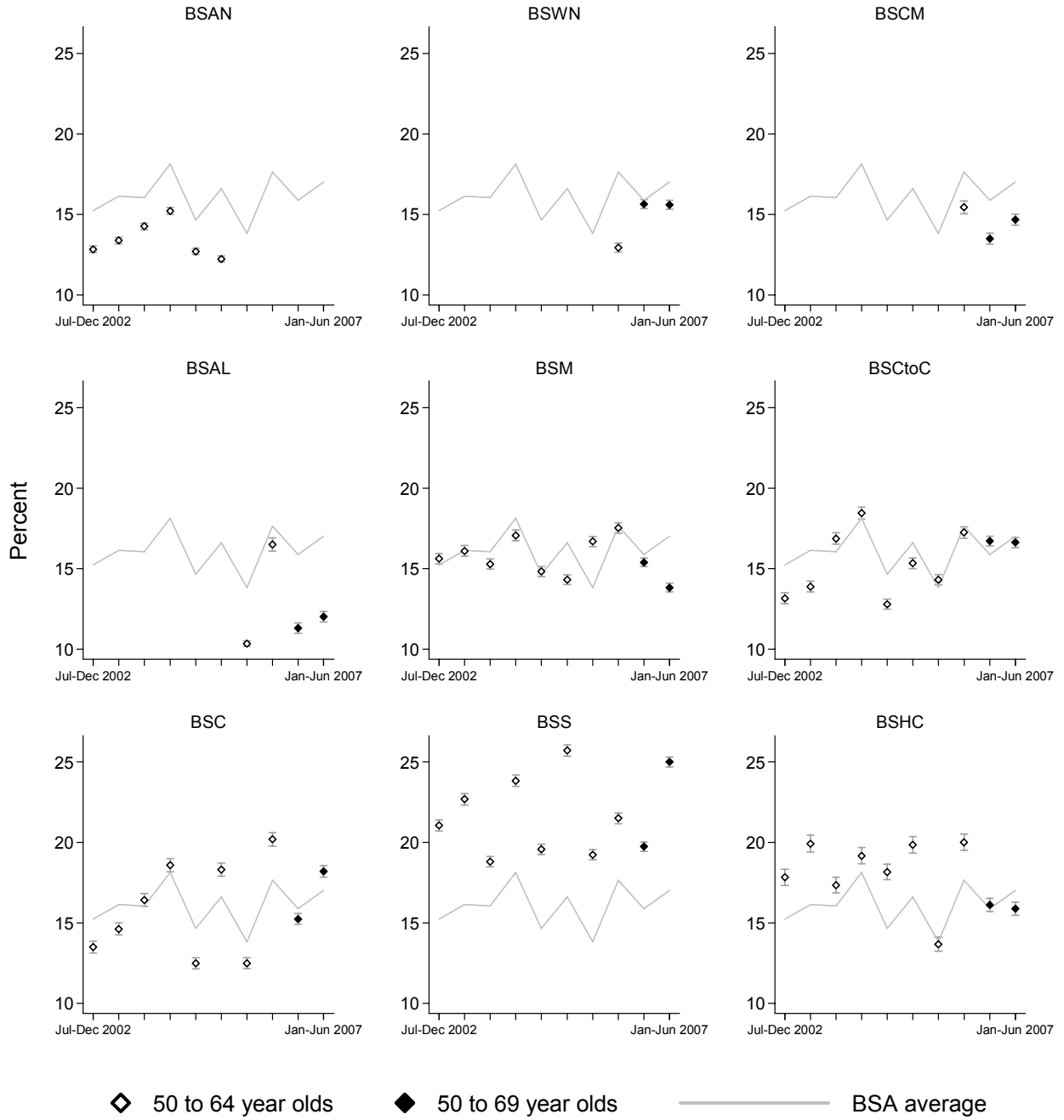
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

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

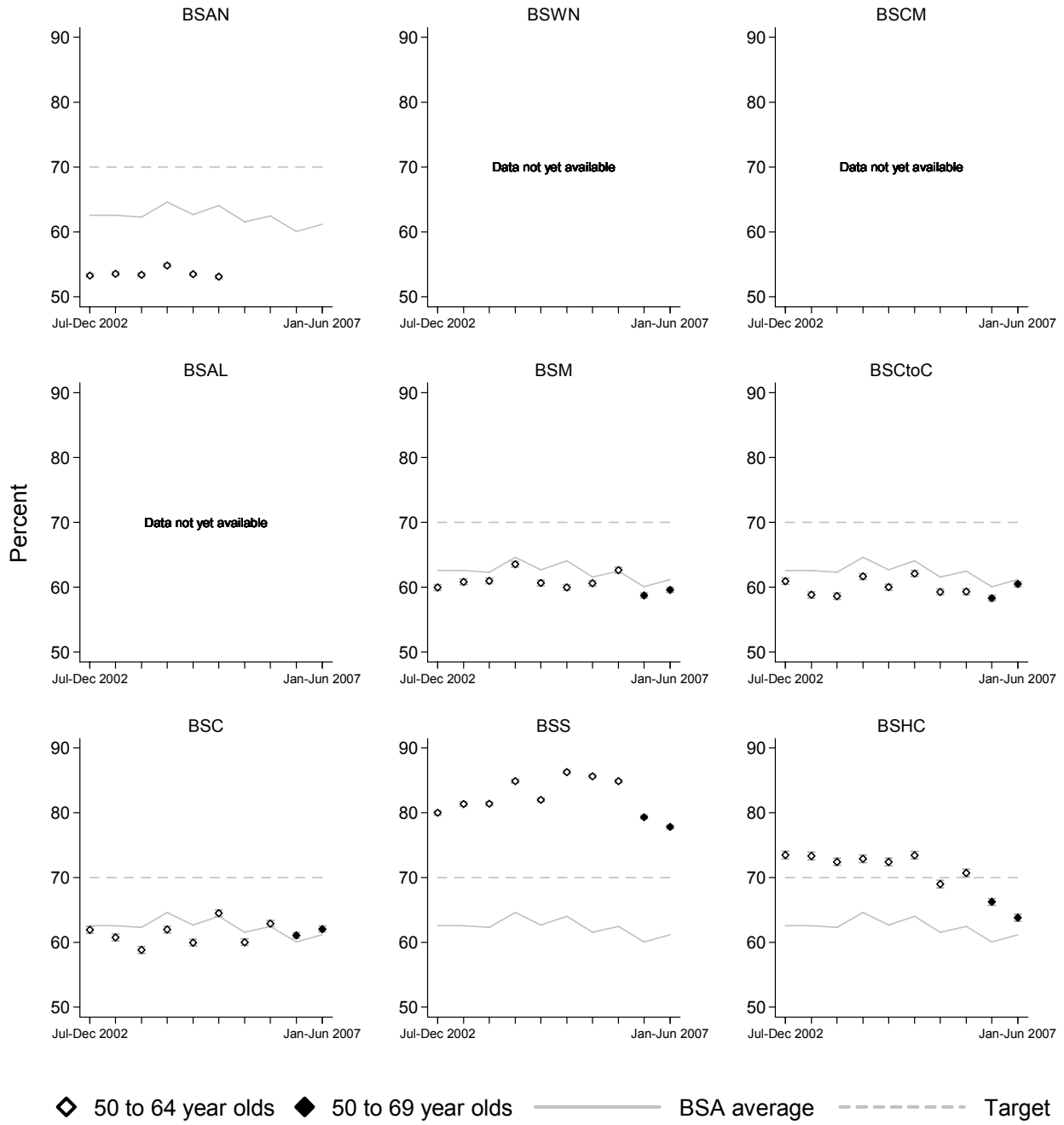
xx Difference of ≥5-9% magnitude worse than target value and statistically significant

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

**Figure1a.1: Trends in coverage of eligible women, last 6 months**



**Figure 1a.1: Trends in coverage of eligible women, last 2 years**



**Comment:**

BreastScreen Auckland and North (BSAN) has been split into 3 smaller lead-providers: BreastScreen Auckland Limited (BSAL), BreastScreen Counties Manukau (BSCM), BreastScreen Waitemata Northland (BSWN). Only 6-month data are presented for these new Lead Providers, as a biennium has not yet elapsed to present 2 yearly rates.

**Overall coverage of eligible women aged 50-69 years.**

The BSA program coverage in the January to June 2007 period increased slightly to 17.0% (compared with 15.9% in the previous reporting period). The biennial coverage was 61.2%. All Lead Providers were significantly lower than the 70% target, except for BSS. Biennial participation has remained relatively stable since 2002 (Figure 1a1).

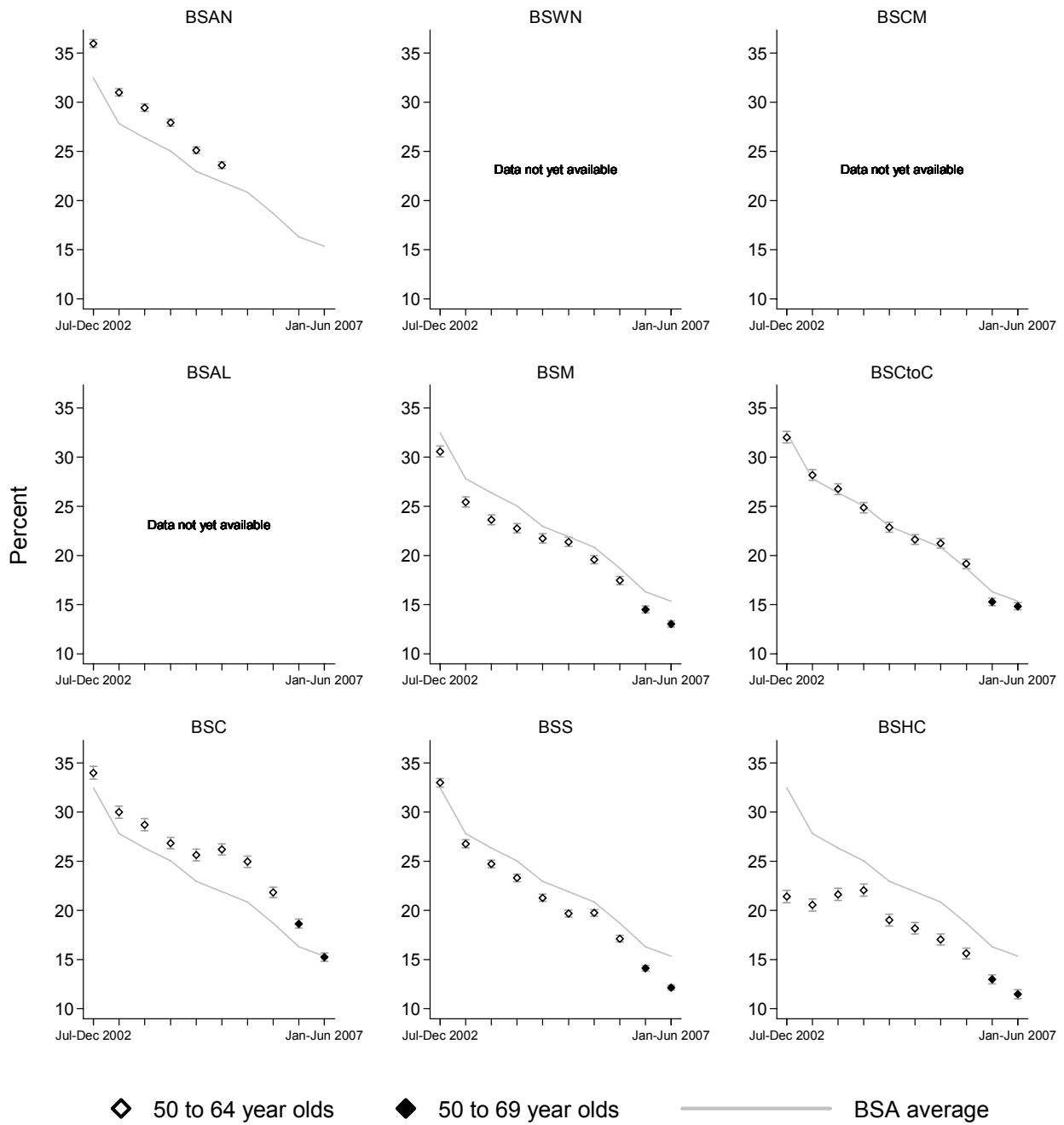
## 1.a.2. The percentage of screens that are initial and subsequent screens

**Table 1a.2: Percentage of screens that are initial and subsequent screens, last 2 years**

	Initial screens	Number of women screened	% (95%CI)	Subsequent screens	Number of women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	7,678	8,118		440	8,118	
BSCM	3,462	3,612		150	3,612	
BSAL	4,683	4,857		174	4,857	
BSM	9,090	10,135	89.7 (89.1-90.3)	1045	10,135	10.3 (9.7-10.9)
BSCtoC	7,366	7,986	92.2 (91.6-92.8)	620	7,986	7.8 (7.2-8.4)
BSC	6,531	7,098	92.0 (91.4-92.6)	567	7,098	8.0 (7.4-8.6)
BSS	21,623	21,805	99.2 (99.0-99.3)	182	21,805	0.8 (0.7-1.0)
BSHC	3,583	4,155	86.2 (85.1-87.3)	572	4,155	13.8 (12.7-14.9)
BSA Total	64,016	67,766	94.5 (94.3-94.6)	3750	67,766	5.5 (5.4-5.7)
<i>50-69 years</i>						
BSWN	5,992	29,462		23,470	29,462	
BSCM	4,207	19,022		14,815	19,022	
BSAL	5,735	29,833		24,098	29,833	
BSM	5,417	41,608	13.0 (12.7-13.3)	36,191	41,608	87.0 (86.7-87.3)
BSCtoC	5,284	35,623	14.8 (14.5-15.2)	30,339	35,623	85.2 (84.8-85.5)
BSC	4,432	29,070	15.2 (14.8-15.7)	24,638	29,070	84.8 (84.3-85.2)
BSS	7,550	62,153	12.1 (11.9-12.4)	54,603	62,153	87.9 (87.6-88.1)
BSHC	2,261	19,699	11.5 (11.0-11.9)	17,438	19,699	88.5 (88.1-89.0)
BSA Total	40,878	266,470	15.3 (15.2-15.5)	225,592	266,470	84.7 (84.5-84.8)

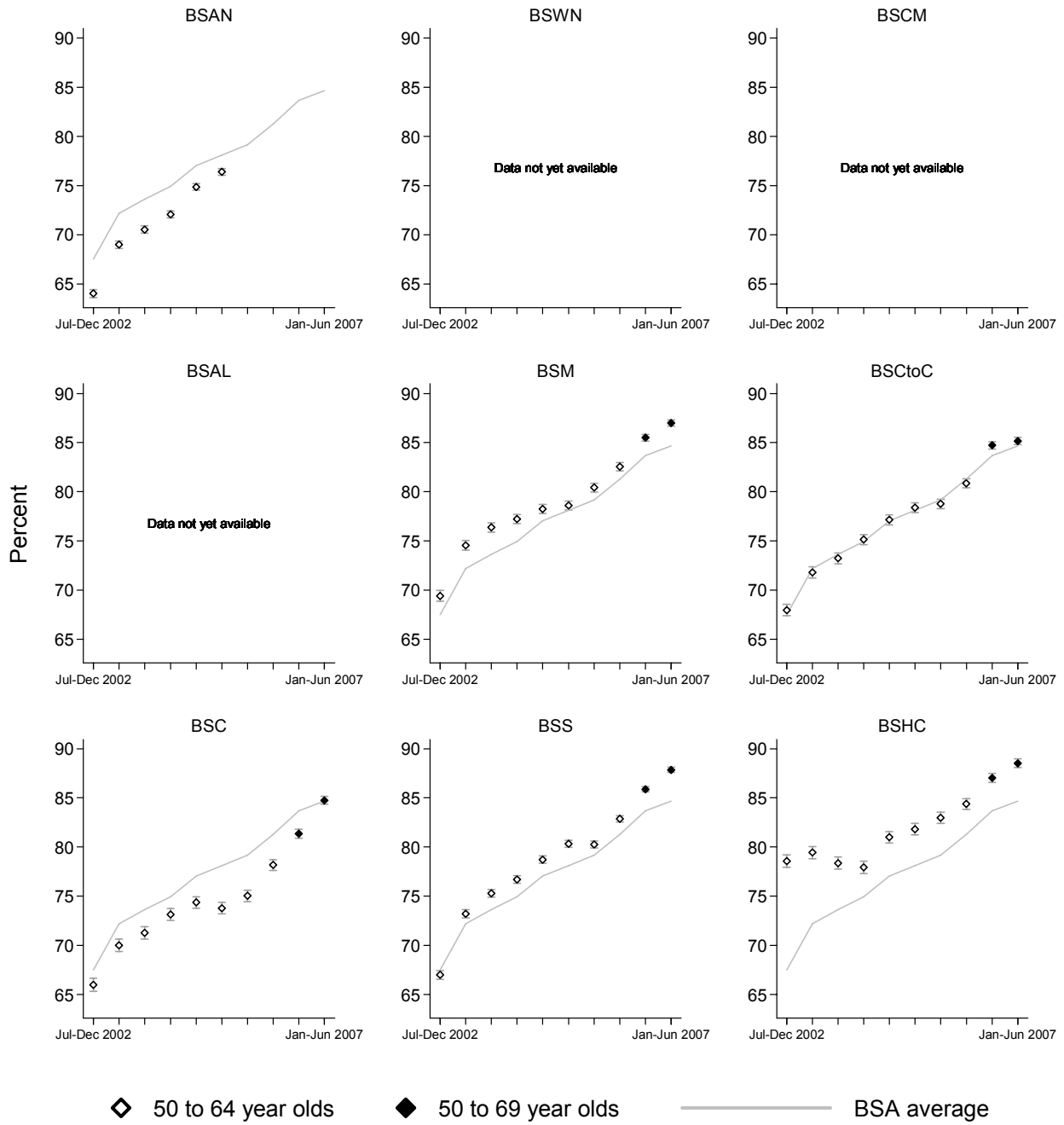
Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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





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



**Comment:**

The data presented in Table 1.a.2 are relative proportions of total women screened. An alternative indicator would be a population-based screening rate, which would comprise the number of women screened (for initial and subsequent) divided by the total number of eligible women in the population.

**The percentage of screens that are initial and subsequent screens, women aged 50-69 years**

Of the total number of screens for the biennium concluding in June 2007, 15.3% were initial screens and 84.7% were subsequent screens with little variation by Lead Provider. It is expected that the proportion of initial screens will decrease further as a proportion of total screens as the program matures (Figure 1a.2), and as a greater proportion of women return to the program for subsequent screens. Future initial screening should stabilise at a level reflecting the number of women who age into the target age group of the program.

### 1.a.3. The percentage of Women Screened by Type of Screening Unit

**Table 1a.3: Percentage of women screened by type of screening unit**

	Fixed site screens	Number of women screened	% (95%CI)	Mobile site screens,	Number of women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	7,132	8,118		986	8,118	
BSCM	2,764	3,612		848	3,612	
BSAL	3,458	4,857		1,399	4,857	
BSM	7,169	10,135	70.7 (69.8-71.6)	2,966	10,135	29.3 (28.4-30.2)
BSCtoC	6,822	7,986	85.4 (84.6-86.2)	1,164	7,986	14.6 (13.8-15.4)
BSC	5,647	7,098	79.6 (78.6-80.5)	1,451	7,098	20.4 (19.5-21.4)
BSS	19,097	21,805	87.6 (87.1-88.0)	2,708	21,805	12.4 (12.0-12.9)
BSHC	2,292	4,155	55.2 (53.6-56.7)	1,863	4,155	44.8 (43.3-46.4)
BSA Total	54,381	67,766	80.2 (79.9-80.5)	13,385	67,766	19.8 (19.5-20.1)
<i>50-69 years</i>						
BSWN	25,783	29,462		3,679	29,462	
BSCM	17,137	19,022		1885	19,022	
BSAL	25,384	29,833		4,449	29,833	
BSM	29,687	41,608	71.3 (70.9-71.8)	11,921	41,608	28.7 (28.2-29.1)
BSCtoC	30,938	35,623	86.8 (86.5-87.2)	4,685	35,623	13.2 (12.8-13.5)
BSC	22,701	29,070	78.1 (77.6-78.6)	6,369	29,070	21.9 (21.4-22.4)
BSS	55,147	62,153	88.7 (88.5-89.0)	7,006	62,153	11.3 (11.0-11.5)
BSHC	13,012	19,699	66.1 (65.4-66.7)	6,687	19,699	33.9 (33.3-34.6)
BSA Total	219,789	266,470	82.5 (82.3-82.6)	46,681	266,470	17.5 (17.4-17.7)

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

#### **Comment:**

The proportion of screens performed at fixed sites and mobile units depends on the geography and policies of various services, and subsequently there is a degree of variation across Lead Providers for this indicator.

#### **The percentage of women screened by type of screening unit, women aged 50-69 years**

For the biennium July 2005 to June 2007, 82.5% of BSA screens were conducted at fixed sites and 17.5% of BSA screens were conducted at mobile vans. This is similar to the previous 6-month reporting period.

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

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

	Last 6 months			Last 2 years				
	Number of women screened	Eligible Population	% (95%CI)	Number of women screened	Eligible Population	% (95%CI)		
<i>50-54 years</i>								
BSWN	3,080	21,110	14.6 (14.1-15.1)	8,402	21110			
BSCM	1,665	12,980	12.8 (12.3-13.4)	5,671	12980			
BSAL	1,435	13,000	11.0 (10.5-11.6)	8,318	13000			
BSM	2,555	20,580	12.4 (12.0-12.9)	10,767	20,580	52.3 (51.6-53.0)	xxx	*
BSCtoC	2,730	17,435	15.7 (15.1-16.2)	9,433	17,435	54.1 (53.4-54.8)	xxx	*
BSC	2,296	14,225	16.1 (15.5-16.8)	8,057	14,225	56.6 (55.8-57.5)	xxx	*
BSS	4,752	23,295	20.4 (19.9-20.9)	17,162	23,295	73.7 (73.1-74.2)	✓✓	*
BSHC	1,338	9,435	14.2 (13.5-14.9)	5,644	9,435	59.8 (58.8-60.8)	xxx	*
<b>BSA Total</b>	<b>19,851</b>	<b>132,060</b>	<b>15.0 (14.8-15.2)</b>	<b>73,454</b>	<b>132,060</b>	<b>55.6 (55.4-55.9)</b>	<b>xxx</b>	<b>*</b>
<i>55-59 years</i>								
BSWN	2,973	19,535	15.2 (14.7-15.7)	8,789	19535			
BSCM	1,672	11,670	14.3 (13.7-15.0)	5,562	11670			
BSAL	1,313	11,000	11.9 (11.3-12.6)	8,709	11000			
BSM	2,347	18,950	12.4 (11.9-12.9)	11,311	18,950	59.7 (59.0-60.4)	xxx	*
BSCtoC	2,606	16,190	16.1 (15.5-16.7)	10,299	16,190	63.6 (62.9-64.4)	xx	*
BSC	2,329	13,200	17.6 (17.0-18.3)	8,509	13,200	64.5 (63.6-65.3)	xx	*
BSS	5,570	21,945	25.4 (24.8-26.0)	17,444	21,945	79.5 (78.9-80.0)	✓✓✓	*
BSHC	1,291	8,760	14.7 (14.0-15.5)	5,697	8,760	65.0 (64.0-66.0)	xx	*
<b>BSA Total</b>	<b>20,101</b>	<b>121,250</b>	<b>16.6 (16.4-16.8)</b>	<b>76,320</b>	<b>121,250</b>	<b>62.9 (62.7-63.2)</b>	<b>xxx</b>	<b>*</b>
<i>60-64 years</i>								
BSWN	2,556	15,245	16.8 (16.2-17.4)	7,049	15245			
BSCM	1,499	8,975	16.7 (15.9-17.5)	4,555	8975			
BSAL	1112	7,840	14.2 (13.4-15.0)	6,795	7840			
BSM	2,110	15,055	14.0 (13.5-14.6)	10,162	15,055	67.5 (66.7-68.2)	✓	*
BSCtoC	2,256	12,585	17.9 (17.3-18.6)	8,314	12,585	66.1 (65.2-66.9)	xx	*
BSC	1,936	9,795	19.8 (19.0-20.6)	6,572	9,795	67.1 (66.2-68.0)	✓	*
BSS	4,742	16,705	28.4 (27.7-29.1)	13,771	16,705	82.4 (81.9-83.0)	✓✓✓	*
BSHC	1,183	6,670	17.7 (16.8-18.7)	4,596	6,670	68.9 (67.8-70.0)	✓	ns
<b>BSA Total</b>	<b>17,394</b>	<b>92,870</b>	<b>18.7 (18.5-19.0)</b>	<b>61,814</b>	<b>92,870</b>	<b>66.6 (66.3-66.9)</b>	<b>✓</b>	<b>*</b>
<i>65-69 years</i>								
BSWN	2,047	12,445	16.4 (15.8-17.1)	5,220	12445			
BSCM	1131	7,035	16.1 (15.2-17.0)	3,224	7035			
BSAL	727	6,360	11.4 (10.7-12.2)	5,379	6360			
BSM	2,356	13,170	17.9 (17.2-18.6)	8,102	13,170	61.5 (60.7-62.4)	xxx	*
BSCtoC	1,939	11,130	17.4 (16.7-18.1)	6,618	11,130	59.5 (58.5-60.4)	xxx	*
BSC	1,702	8,175	20.8 (19.9-21.7)	5,022	8,175	61.4 (60.4-62.5)	xxx	*
BSS	3,959	14,130	28.0 (27.3-28.8)	10,800	14,130	76.4 (75.7-77.1)	✓✓	*
BSHC	1,085	5,970	18.2 (17.2-19.2)	3,738	5,970	62.6 (61.4-63.8)	xxx	*
<b>BSA Total</b>	<b>14,946</b>	<b>78,415</b>	<b>19.1 (18.8-19.3)</b>	<b>48,103</b>	<b>78,415</b>	<b>61.3 (61.0-61.7)</b>	<b>xxx</b>	<b>*</b>

Note: Eligible population is based on the 2006 projected population. Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

\* 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

Comment:

**1.a.4. Coverage of 50-54 year old eligible women**

The 6-monthly coverage (15.0%) is similar to the previous period, as is the biennial coverage of 55.6% (compared with 55.4 for the previous period). There is some variation between Lead Providers with biennial coverage ranging from 52.3% (BSM) to 73.7% (BSS).

**1.a.5. Coverage of 55-59 year old eligible women**

The 6-monthly coverage (16.6%) has increased slightly compared to the previous period, although biennial coverage of 62.9% was similar to the previous period (62.1%). There is some variation between Lead Providers with biennial coverage ranging from 59.7% (BSM) to 79.5% (BSS).

**1.a.6. Coverage of 60-64 year old eligible women**

The 6-monthly coverage (18.7%) was slightly higher than the previous period. The biennial coverage was 66.6% (compared to 65.1% for the previous reporting period). There is some variation between Lead Providers with biennial coverage ranging from 66.1% (BSCtoC) to 82.4% (BSS).

**1.a.6. Coverage of 65-69 year old eligible women**

The 6-monthly coverage (19.1%) was slightly higher than the previous period. The biennial coverage was 61.3% (compared to 58.7% for the previous reporting period). There is some variation between Lead Providers, ranging from 59.5% (BSCtoC) to 76.4% (BSS).

### 1.a.7. Coverage by Ethnicity, Summary for last 2 years, women 50-69 years

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

	Last 6 months			Last 2 years				
	Number of women screened	Eligible population	% (95%CI)	Number of women screened	Eligible population	% (95%CI)		
<i>Maori</i>								
BSWN	926	6,180	15.0 (14.1-15.9)	2,198	6180			
BSCM	555	4,330	12.8 (11.8-13.8)	1,748	4330			
BSAL	237	2,360	10.0 (8.9-11.3)	1,871	2360			
BSM	977	10,050	9.7 (9.1-10.3)	3,995	10,050	39.8 (38.8-40.7)	xxx	*
BSCtoC	969	7,690	12.6 (11.9-13.4)	2,737	7,690	35.6 (34.5-36.7)	xxx	*
BSC	439	3,260	13.5 (12.3-14.7)	1,532	3,260	47.0 (45.3-48.7)	xxx	*
BSS	518	2,725	19.0 (17.6-20.5)	1,810	2,725	66.4 (64.6-68.2)	xx	*
BSHC	115	1,170	9.8 (8.2-11.7)	531	1,170	45.4 (42.5-48.3)	xxx	*
BSA Total	4,736	37,765	12.5 (12.2-12.9)	16,422	37,765	43.5 (43.0-44.0)	xxx	*
<i>Pacific Islander</i>								
BSWN	211	2,305	9.2 (8.0-10.4)	816	2305			
BSCM	615	5,280	11.6 (10.8-12.5)	2,052	5280			
BSAL	422	3,360	12.6 (11.5-13.7)	2,017	3360			
BSM	48	685	7.0 (5.2-9.2)	301	685	43.9 (40.2-47.8)	xxx	*
BSCtoC	66	560	11.8 (9.2-14.7)	189	560	33.8 (29.8-37.8)	xxx	*
BSC	156	2,195	7.1 (6.1-8.3)	795	2,195	36.2 (34.2-38.3)	xxx	*
BSS	99	510	19.4 (16.1-23.1)	348	510	68.2 (64.0-72.3)	✓	ns
BSHC	14	155	9.0 (5.0-14.7)	69	155	44.5 (36.5-52.7)	xxx	*
BSA Total	1,631	15,050	10.8 (10.3-11.3)	6,587	15,050	43.8 (43.0-44.6)	xxx	*
<i>Other</i>								
BSWN	9,500	59,850	15.9 (15.6-16.2)	26,382	59850			
BSCM	4,773	31,050	15.4 (15.0-15.8)	15,185	31050			
BSAL	3,868	32,480	11.9 (11.6-12.3)	24,983	32480			
BSM	8,338	57,020	14.6 (14.3-14.9)	36,037	57,020	63.2 (62.8-63.6)	xx	*
BSCtoC	8,411	49,090	17.1 (16.8-17.5)	31,347	49,090	63.9 (63.4-64.3)	xx	*
BSC	7,447	39,940	18.6 (18.3-19.0)	25,166	39,940	63.0 (62.5-63.5)	xx	*
BSS	18,326	72,840	25.2 (24.8-25.5)	56,775	72,840	77.9 (77.6-78.2)	✓✓✓	*
BSHC	4,733	29,510	16.0 (15.6-16.5)	18,897	29,510	64.0 (63.5-64.6)	xx	*
BSA Total	65,396	371,780	17.6 (17.5-17.7)	234,772	371,780	63.1 (63.0-63.3)	xx	*

Note: Eligible population is based on the 2006 projected population. Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

\* 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 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

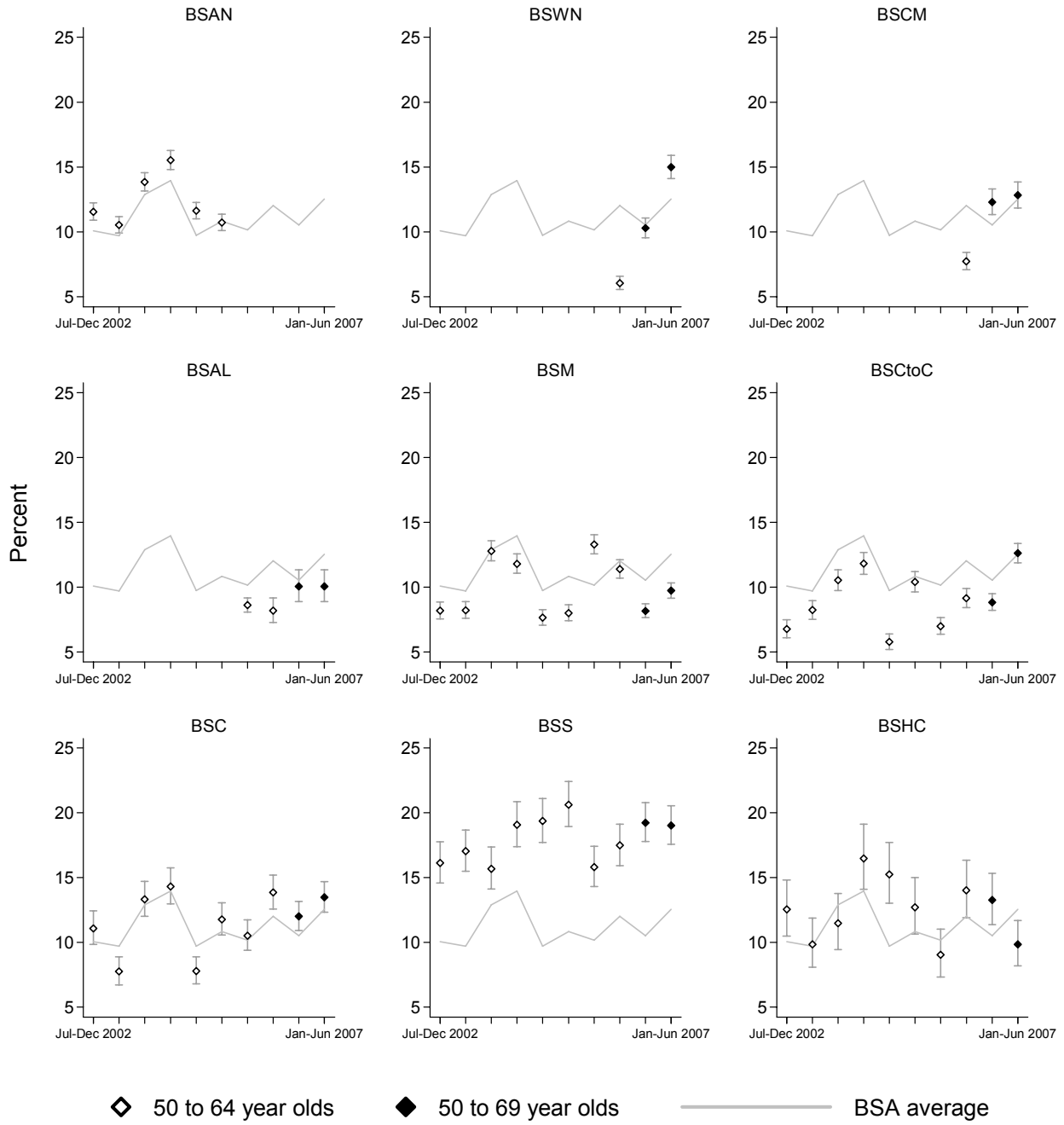
xxx Difference of ≥10% magnitude worse than target value and statistically significant

#### Comment:

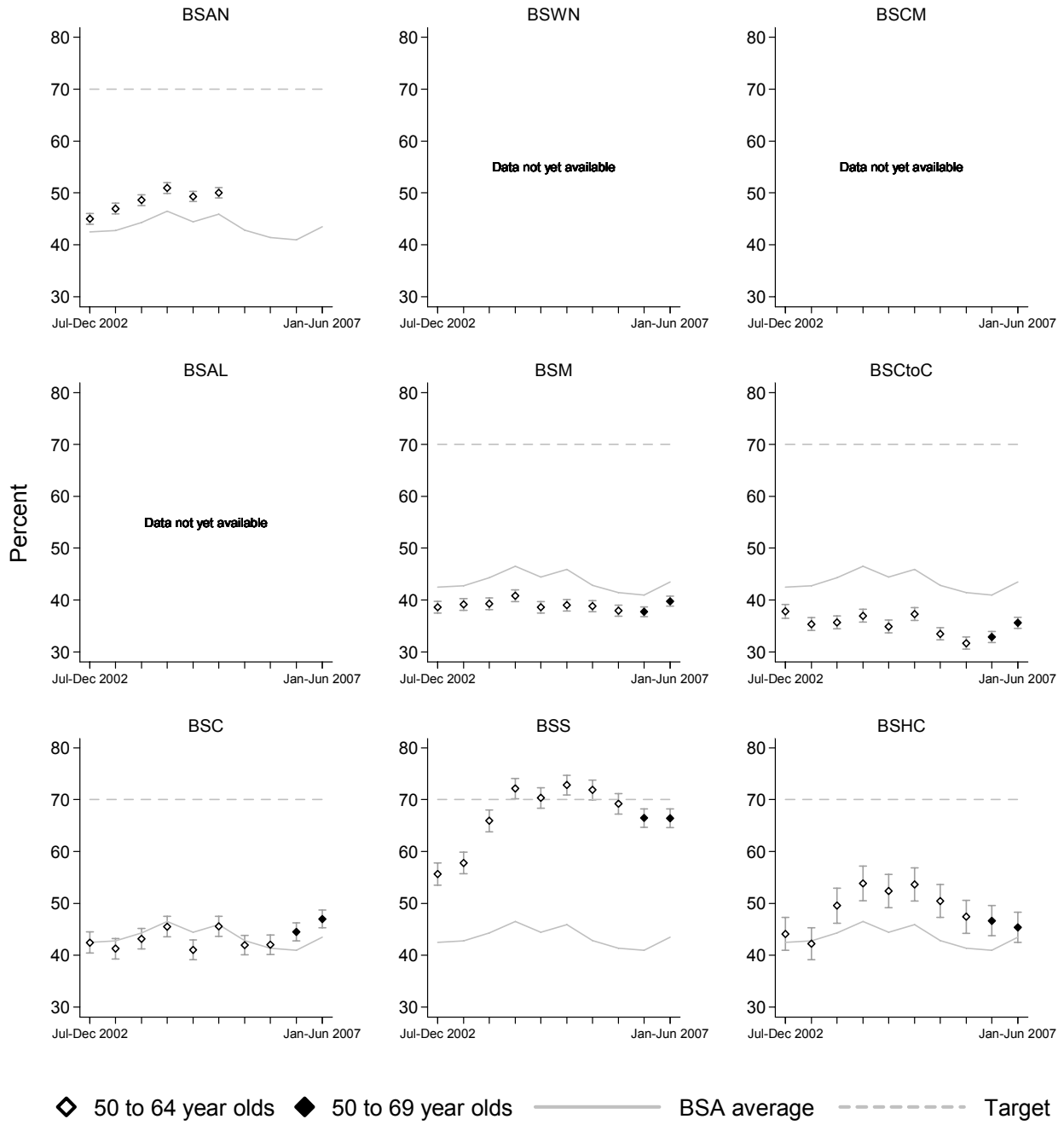
#### Coverage by Ethnicity, Summary for last 2 years, 50-69 years

The biennial coverage for July 2005 to June 2007 slightly increased in comparison to the previous period for each major ethnic group (notwithstanding aggregation of the 65-69 year age-group with the 50-64 year age-group). Similar BSA coverage is evident for Maori and Pacific Islanders (approximately 43.5% and 43.8% respectively). Coverage in the 'other' ethnic group was higher (63.1%) than Maori and Pacific Islander groups. There is a wide variation in coverage by Lead Provider for Maori and Pacific Islander groups, ranging from 35.6% (BSCtoC) to 66.4% (BSS) for Maori and, from 33.8% (BSCtoC) to 68.2% (BSS) for Pacific Islanders.

**Figure 1a7.1: Trends in coverage for Maori, women 50-69 years, last 6 months**

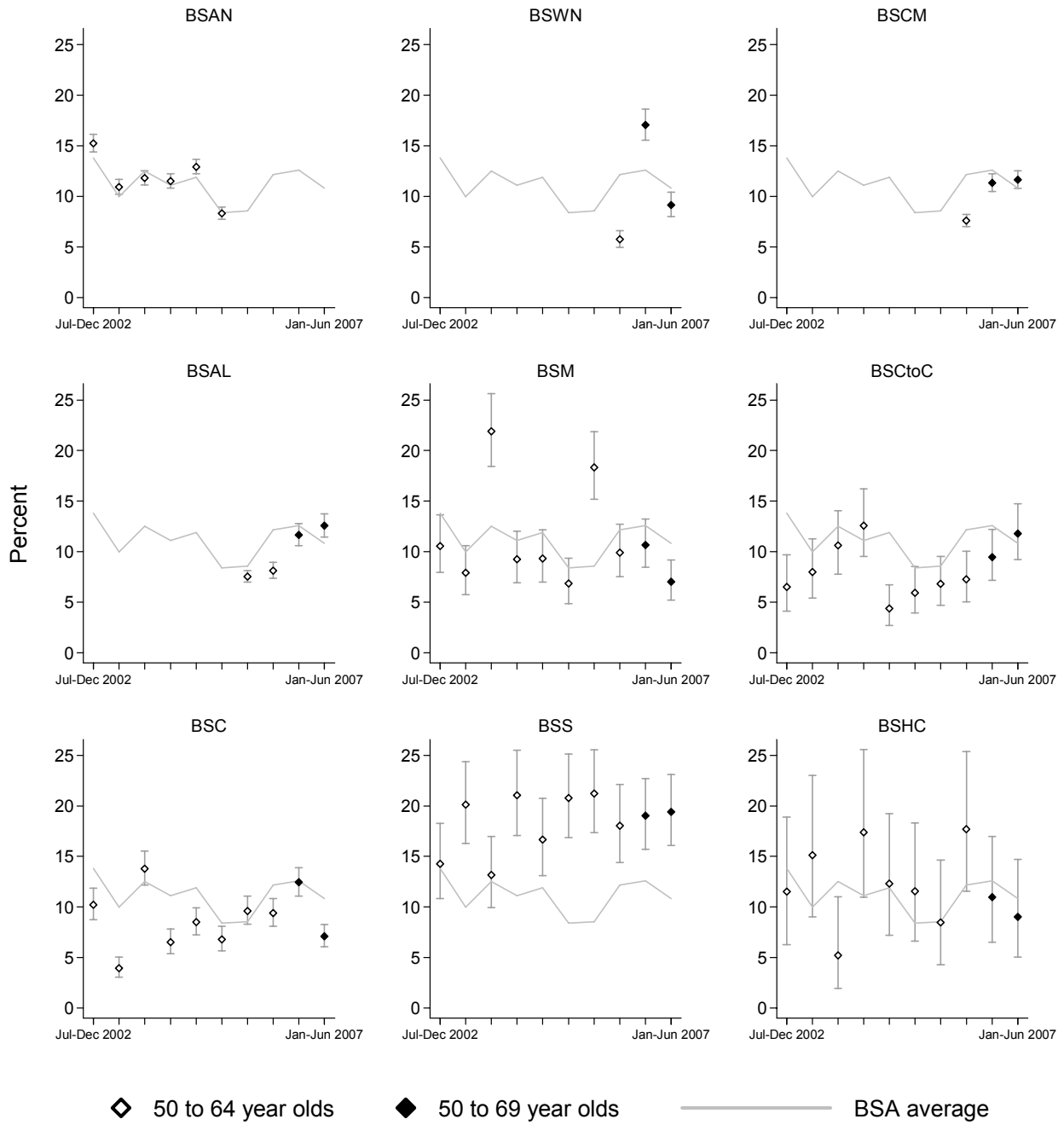


**Figure 1a7.1: Trends in coverage for Maori, women 50-69 years, last 2 years**

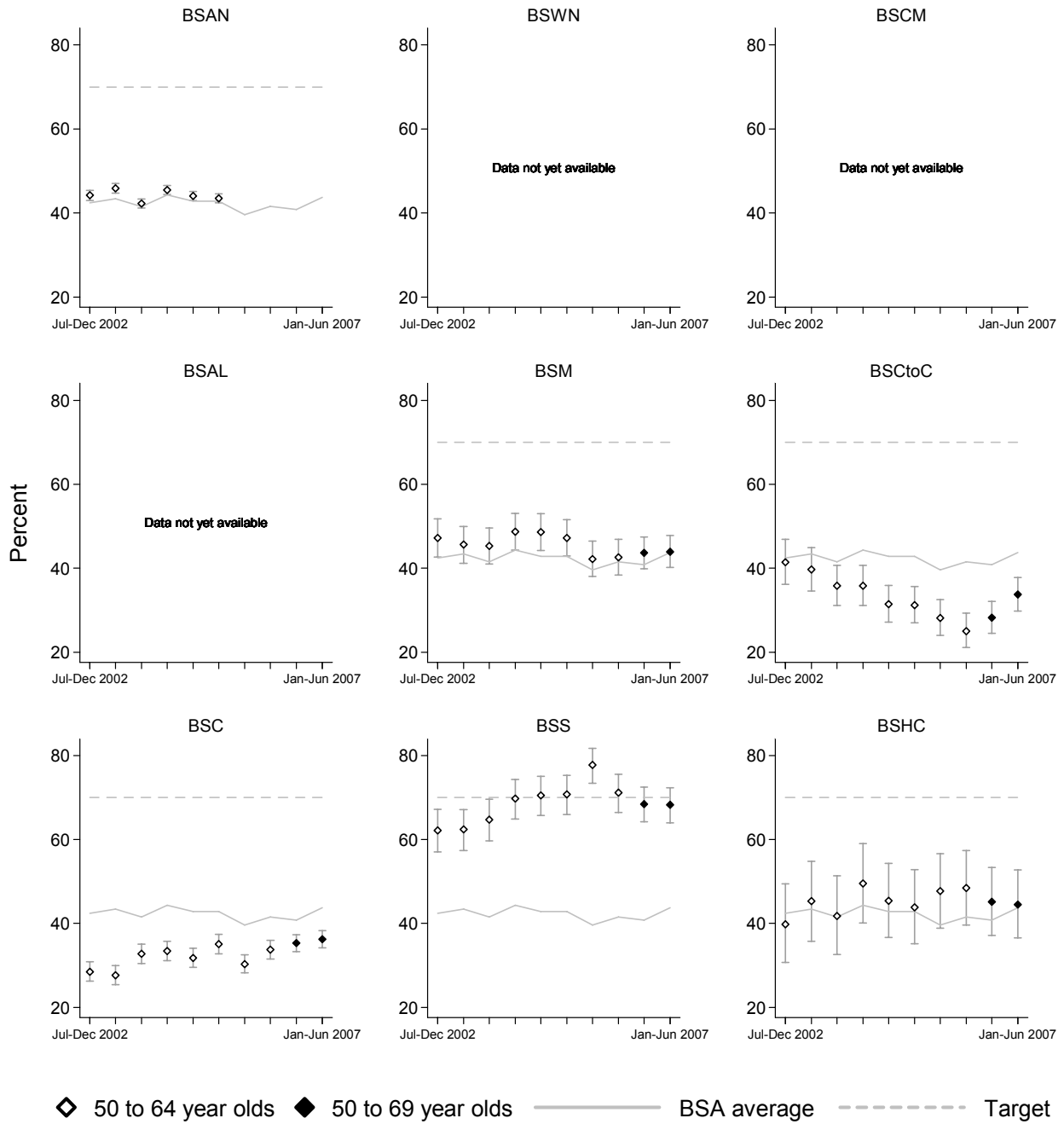




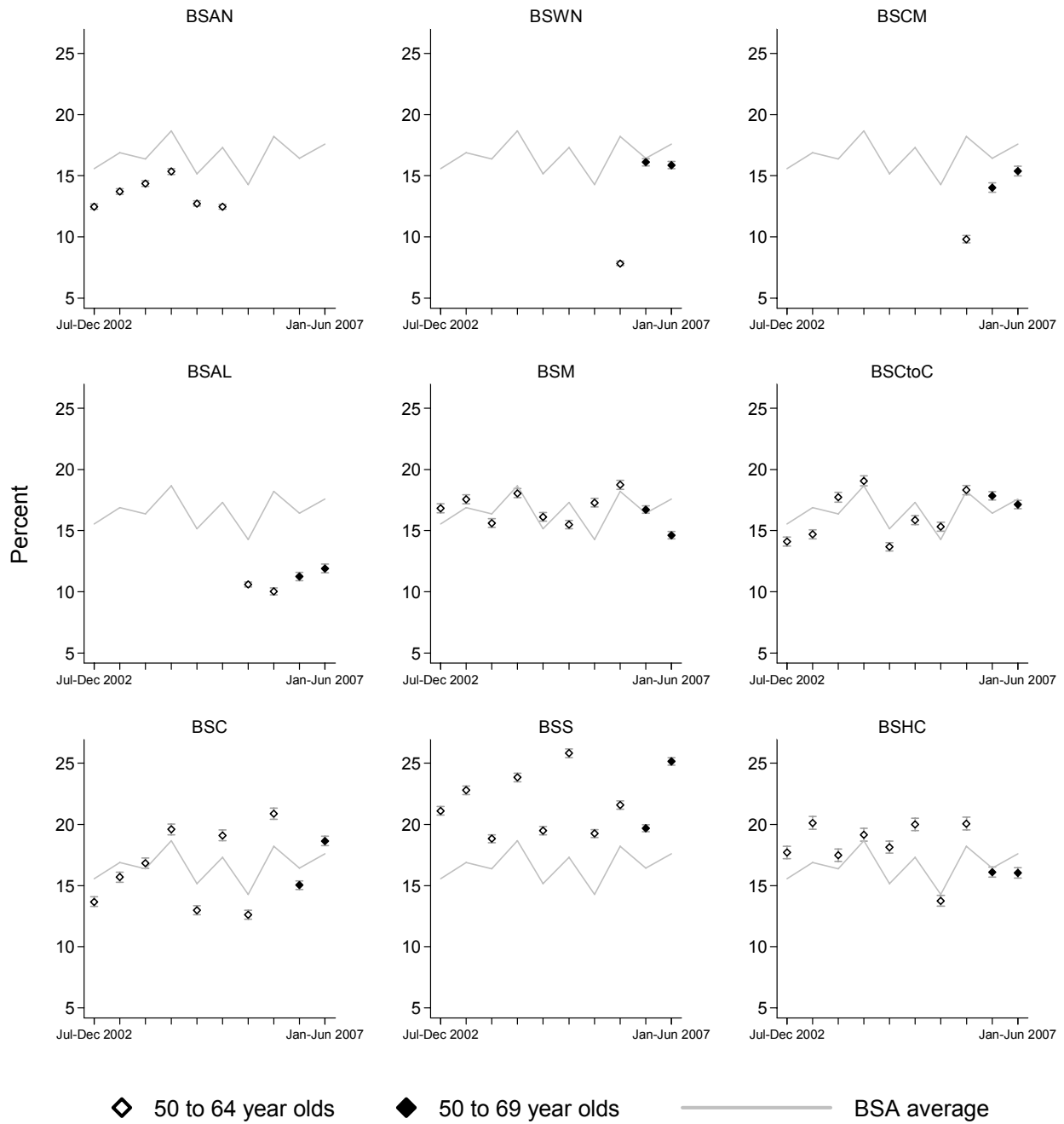
**Figure 1a7.2: Trends in coverage for Pacific Islanders, women 50-69 years, 2001-2007, last 6 months**



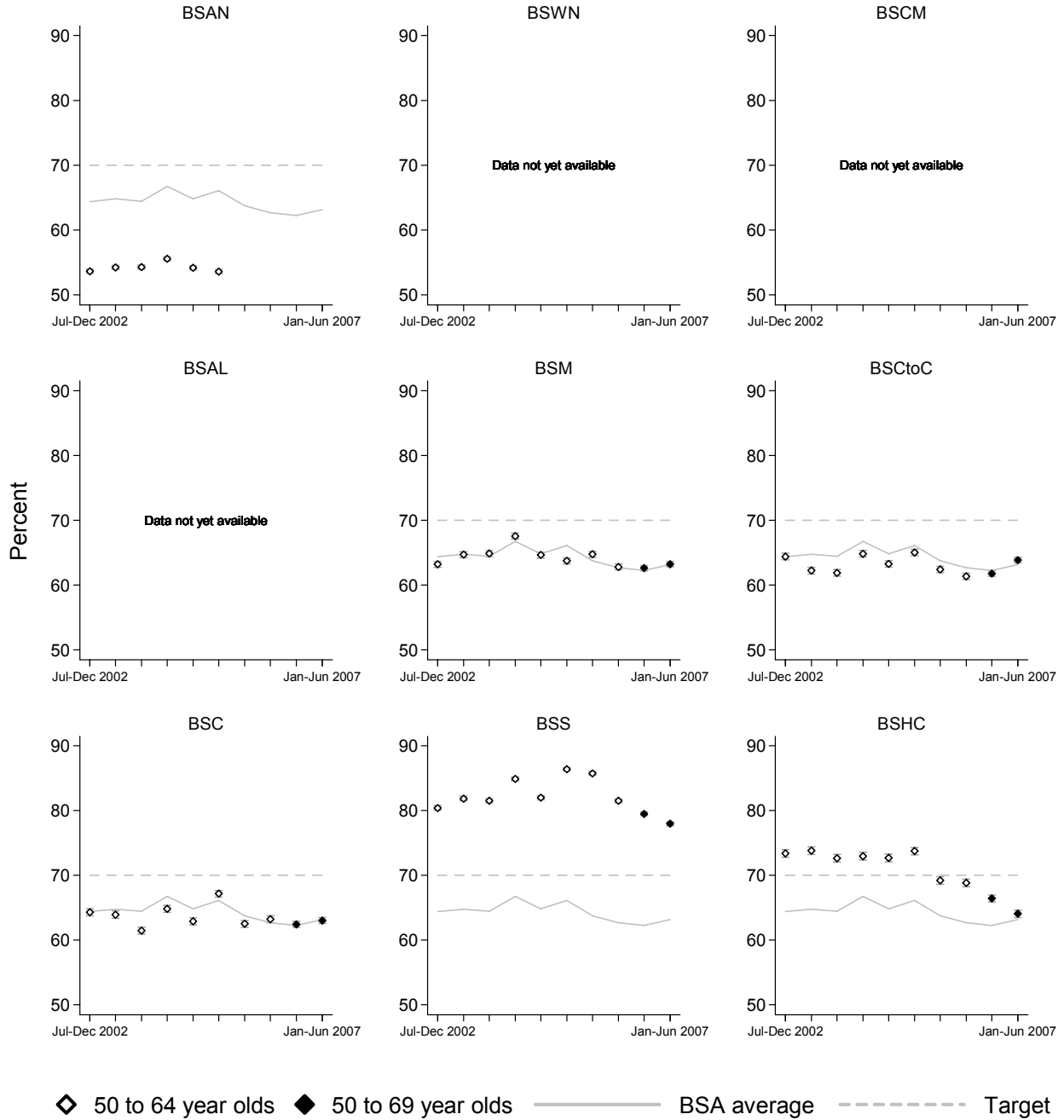
**Figure 1a7.2: Trends in coverage for Pacific Islanders, women 50-69 years, 2001-2007, last 2 years**



**Figure 1a7.3: Trends in coverage for other ethnic groups, women 50-69 years, last 6 months**



**Figure 1a7.3: Trends in coverage for Other ethnic groups, women 50-69 years, last 2 years**



## 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, 50-69 years**

	Last 6 months			Last 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)		
BSWN								
BSCM								
BSAL								
BSM	5,079	6,190	82.1 (81.1-83.0)	21,825	27,177	80.3 (79.8-80.8)	xx	*
BSCtoC	4,346	5,067	85.8 (84.8-86.7)	19,460	23,782	81.8 (81.3-82.3)	✓	*
BSC	3,627	4,204	86.3 (85.2-87.3)	16,453	19,451	84.6 (84.1-85.1)	✓	ns
BSS	8,570	9,420	91.0 (90.4-91.5)	39,313	43,135	91.1 (90.9-91.4)	✓✓	*
BSHC	3,022	3,497	86.4 (85.2-87.5)	12,983	15,054	86.2 (85.7-86.8)	✓	*
BSA Total	24,644	28,378	86.8 (86.4-87.2)	110,034	128,599	85.6 (85.4-85.8)	✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not 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 1b.2: Percentage of women who return for a screen who are re-screened within 20-24 months, 50 to 69 years**

	Last 6 months			Last 2 years				
	Women screened within 20-24 months	Women eligible for re-screen	% (95% CI)	Women screened within 20-24 months	Women eligible for re-screen	% (95% CI)		
BSWN								
BSCM								
BSAL								
BSM	4,628	5,079	91.1 (90.3-91.9)	16,985	21,825	77.8 (77.3-78.4)	✓	*
BSCtoC	3,508	4,346	80.7 (79.5-81.9)	12,988	19,460	66.7 (66.1-67.4)	xxx	*
BSC	3,024	3,627	83.4 (82.1-84.6)	13,610	16,453	82.7 (82.1-83.3)	✓✓✓	*
BSS	8,060	8,570	94.0 (93.5-94.5)	36,696	39,313	93.3 (93.1-93.6)	✓✓✓	*
BSHC	1,847	3,022	61.1 (59.4-62.9)	8,422	12,983	64.9 (64.0-65.7)	xxx	*
BSA Total	21,067	24,644	85.5 (85.0-85.9)	88,701	110,034	80.6 (80.4-80.8)	✓✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not 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

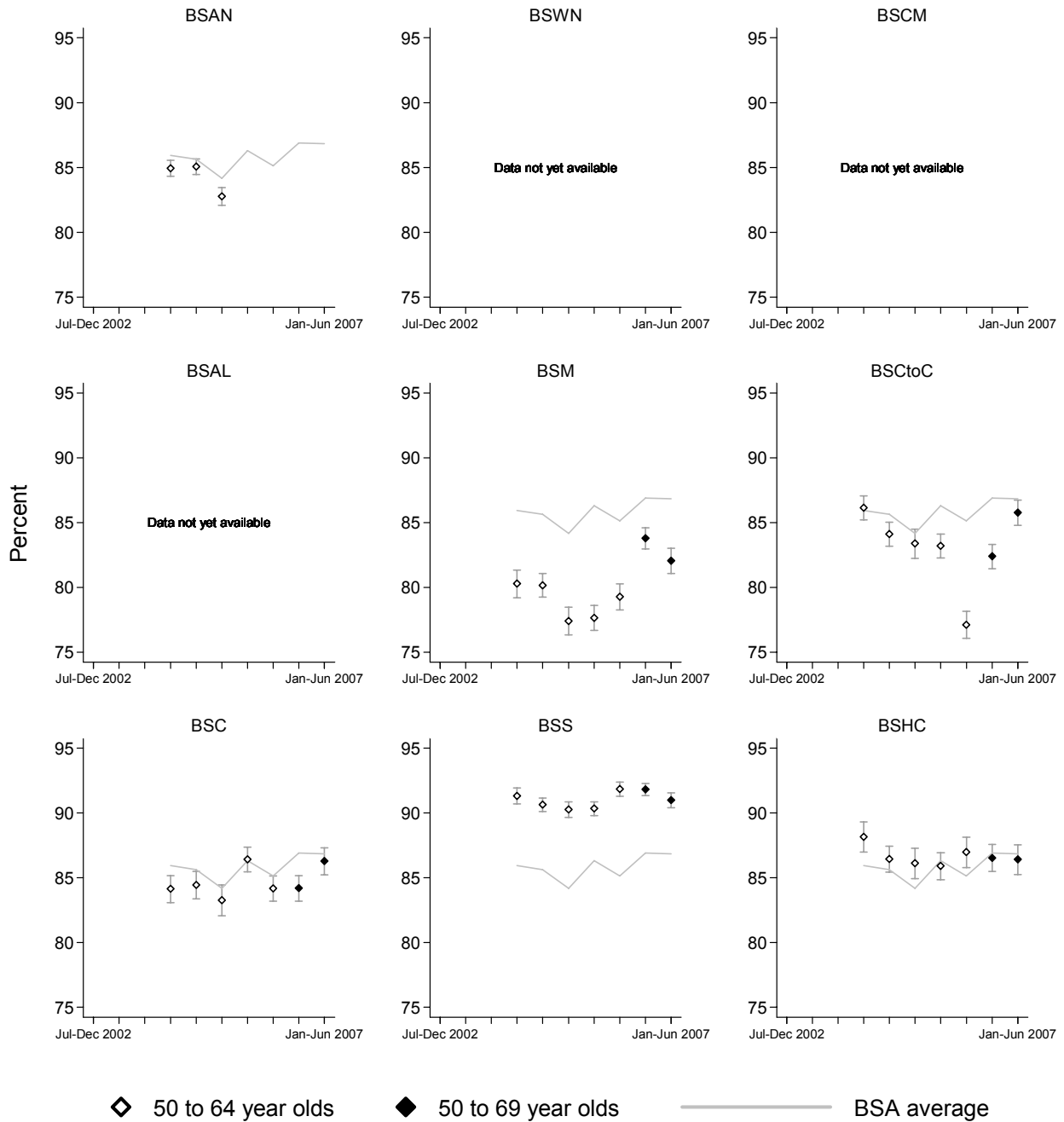
✓✓ Difference of 5-9% magnitude better than target value and statistically significant

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

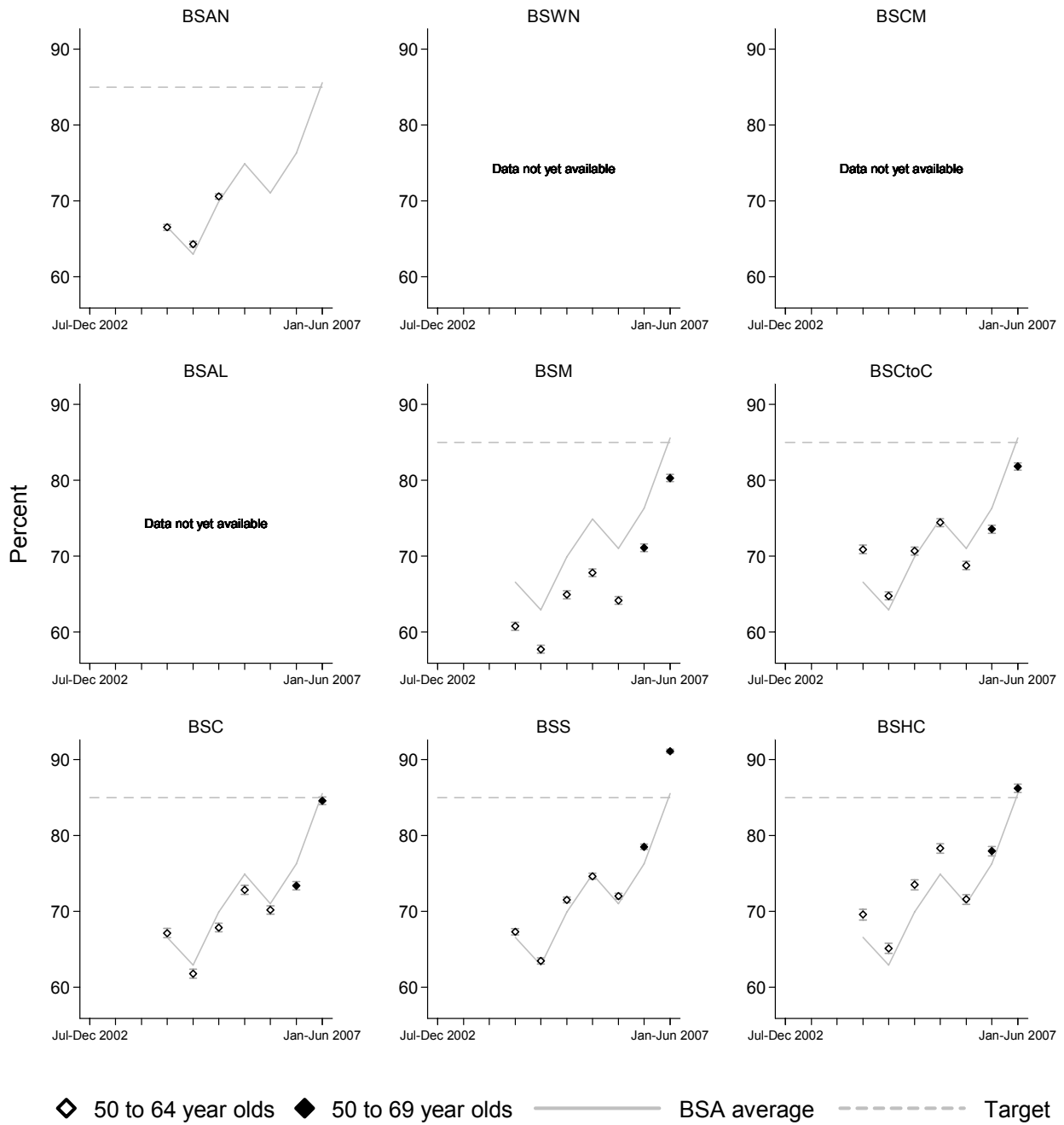
xx Difference of ≥5-9% magnitude worse than target value and statistically significant

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

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



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



**Comment:**

**1.b.1. Re-screened within 27 months**

The BSA re-screen rate exceeded the target for both 6 months and 2 year periods, and continues the upward improvement trend.

**1.b.2. Re-screened 20-24 months**

Both six monthly and 2 yearly data show that the target of 75% is being met overall by BSA, with BSS achieving a biennial re-screen rate nearly 20% above the target value. All Lead Providers reached the target for the biennium, with the exception of BSCtoC and BSHC.



## 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.

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

	Fixed site			Mobile site		
	Women having ≤4 films	Women screened	% (95%CI)	Women having ≤4 films	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	2,479	2,946	84.1 (82.8-85.4)	281	347	81.0 (76.4-85.0)
BSCM	1349	1,581	85.3 (83.5-87.0)	571	681	83.8 (80.9-86.5)
BSAL	1029	1,308	78.7 (76.3-80.9)	150	212	70.8 (64.1-76.8)
BSM	1,649	1,784	92.4 (91.1-93.6)	596	683	87.3 (84.5-89.7)
BSCtoC	1987	2,228	89.2 (87.8-90.4)	161	211	76.3 (70.0-81.9)
BSC	1,389	1,533	90.6 (89.0-92.0)	226	241	93.8 (89.9-96.5)
BSS	3,496	3,899	89.7 (88.7-90.6)	377	409	92.2 (89.1-94.6)
BSHC	404	459	88.0 (84.7-90.8)	322	341	94.4 (91.4-96.6)
BSA Total	13,782	15,738	87.6 (87.0-88.1)	2,684	3,125	85.9 (84.6-87.1)
<i>50-69 years</i>						
BSWN	7,403	9,047	81.8 (81.0-82.6)	1268	1609	78.8 (76.7-80.8)
BSCM	3,826	4,517	84.7 (83.6-85.7)	1281	1450	88.3 (86.6-90.0)
BSAL	3,342	4,139	80.7 (79.5-81.9)	321	447	71.8 (67.4-75.9)
BSM	6,201	6,689	92.7 (92.1-93.3)	2,303	2,679	86.0 (84.6-87.3)
BSCtoC	7,710	8,654	89.1 (88.4-89.7)	669	877	76.3 (73.3-79.1)
BSC	5,636	6,301	89.4 (88.7-90.2)	1,822	1,962	92.9 (91.6-94.0)
BSS	15,503	17,388	89.2 (88.7-89.6)	1,493	1,635	91.3 (89.8-92.6)
BSHC	2,784	3,310	84.1 (82.8-85.3)	1,492	1,587	94.0 (92.7-95.1)
BSA Total	52,405	60,045	87.3 (87.0-87.5)	10,649	12,246	87.0 (86.3-87.6)

**Comment:**

**Percentage of women (50-69 years) having 4 films or less by Lead Provider, last 6 months**

The BSA program percentage and all Lead Providers had estimates above 80% for fixed sites. Similarly for mobile sites, the BSA program percentage was above 80%, with exception of BSWN, BSAL and BSCtoC which were significantly lower than estimates of other Lead Providers.

**Description:**

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

**Target:**

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

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

	Fixed site			Mobile site		
	Women having ≤4 films	Women screened	% (95%CI)	Women having ≤4 films	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	5,871	7,132		752	986	
BSCM	2339	2,764		719	848	
BSAL	2,805	3,458		1,132	1,399	
BSM	6,433	7,169	89.7 (89.0-90.4)	2,442	2,966	82.3 (80.9-83.7)
BSCtoC	6,099	6,822	89.4 (88.6-90.1)	979	1,164	84.1 (81.9-86.2)
BSC	5,127	5,647	90.8 (90.0-91.5)	1,316	1,451	90.7 (89.1-92.1)
BSS	16,925	19,097	88.6 (88.2-89.1)	2,405	2,708	88.8 (87.6-90.0)
BSHC	2,008	2,292	87.6 (86.2-88.9)	1,757	1,863	94.3 (93.2-95.3)
BSA Total	47,607	54,381	87.5 (87.3-87.8)	11,502	13,385	85.9 (85.3-86.5)
<i>50-69 years</i>						
BSWN	20,231	25,783		2,765	3,679	
BSCM	14,613	17,137		1625	1885	
BSAL	20,785	25,384		3,341	4,449	
BSM	26,766	29,687	90.2 (89.8-90.5) ✓✓✓ *	9,881	11,921	82.9 (82.2-83.6) ✓ *
BSCtoC	27,433	30,938	88.7 (88.3-89.0) ✓✓✓ *	3,781	4,685	80.7 (79.5-81.8) ✓ ns
BSC	20,259	22,701	89.2 (88.8-89.6) ✓✓✓ *	5,643	6,369	88.6 (87.8-89.4) ✓✓✓ *
BSS	48,928	55,147	88.7 (88.5-89.0) ✓✓✓ *	6,170	7,006	88.1 (87.3-88.8) ✓✓✓ *
BSHC	11,139	13,012	85.6 (85.0-86.2) ✓✓ *	6,244	6,687	93.4 (92.8-94.0) ✓✓✓ *
BSA Total	190,154	219,789	86.5 (86.4-86.7) ✓✓ *	39,450	46,681	84.5 (84.2-84.8) ✓✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

\* 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

**Comment:**

**Percentage of women (50-69 years) having 4 films or less by Lead Provider, last 2 years**

The BSA program percentage exceeded the target of 80% for fixed sites and mobile sites. There was slight variability across Lead Providers.

## 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%

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

	Fixed site			Mobile site		
	Women having technical recall	Women screened	% (95%CI)	Women having technical recall	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	4	2,946	0.1 (0.0-0.3)	14	347	4.0 (2.2-6.8)
BSCM	2	1,581	0.1 (0.0-0.5)	26	681	3.8 (2.5-5.6)
BSAL	13	1,308	1.0 (0.5-1.7)	8	212	3.8 (1.6-7.4)
BSM	1	1,784	0.1 (0.0-0.3)	27	683	4.0 (2.6-5.8)
BSCtoC	11	2,228	0.5 (0.2-0.9)	6	211	2.8 (1.0-6.2)
BSC	17	1,533	1.1 (0.6-1.8)	9	241	3.7 (1.7-7.1)
BSS	8	3,899	0.2 (0.1-0.4)	8	409	2.0 (0.8-3.9)
BSHC	2	459	0.4 (0.1-1.6)	14	341	4.1 (2.2-6.9)
BSA Total	58	15,738	0.4 (0.3-0.5)	112	3,125	3.6 (3.0-4.3)
<i>50-69 years</i>						
BSWN	4	9,047	0.0 (0.0-0.1)	73	1609	4.5 (3.6-5.7)
BSCM	4	4,517	0.1 (0.0-0.2)	45	1450	3.1 (2.3-4.2)
BSAL	15	4,139	0.4 (0.2-0.6)	18	447	4.0 (2.4-6.4)
BSM	10	6,689	0.1 (0.1-0.3)	105	2,679	3.9 (3.2-4.7)
BSCtoC	40	8,654	0.5 (0.3-0.6)	40	877	4.6 (3.3-6.2)
BSC	25	6,301	0.4 (0.3-0.6)	87	1,962	4.4 (3.6-5.5)
BSS	23	17,388	0.1 (0.1-0.2)	17	1,635	1.0 (0.6-1.7)
BSHC	9	3,310	0.3 (0.1-0.5)	30	1,587	1.9 (1.3-2.7)
BSA Total	130	60,045	0.2 (0.2-0.3)	415	12,246	3.4 (3.1-3.7)

Poisson 95% Confidence Intervals presented

#### Comment:

#### Women having technical recall as a percentage of Women screened, last 6 Months, women aged 50-69 years

The BSA program percentage and all Lead Providers were equal to or below 0.5% for fixed sites. For mobile sites the BSA program percentage was 3.4%. Five Lead Providers (BSWN, BSAL, BSM, BSCtoC and BSC) had estimates statistically above the overall BSA estimate. Overall BSA technical recall has decreased over time (Figure 2b1).

*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%

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

	Fixed site			Mobile site		
	Women having technical recall	Women screened	% (95%CI)	Women having technical recall	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	34	7,132		73	986	
BSCM	5	2,764		29	848	
BSAL	39	3,458		70	1,399	
BSM	18	7,169	0.3 (0.1-0.4)	126	2,966	4.2 (3.5-5.1)
BSCtoC	23	6,822	0.3 (0.2-0.5)	39	1,164	3.4 (2.4-4.6)
BSC	34	5,647	0.6 (0.4-0.8)	65	1,451	4.5 (3.5-5.7)
BSS	52	19,097	0.3 (0.2-0.4)	63	2,708	2.3 (1.8-3.0)
BSHC	3	2,292	0.1 (0.0-0.4)	33	1,863	1.8 (1.2-2.5)
BSA Total	208	54,381	0.4 (0.3-0.4)	498	13,385	3.7 (3.4-4.1)
<i>50-69 years</i>						
BSWN	53	25,783		222	3,679	
BSCM	16	17,137		56	1885	
BSAL	61	25,384		298	4,449	
BSM	44	29,687	0.1 (0.1-0.2) ✓✓✓ *	413	11,921	3.5 (3.1-3.8) *** *
BSCtoC	85	30,938	0.3 (0.2-0.3) ✓✓✓ *	169	4,685	3.6 (3.1-4.2) *** *
BSC	77	22,701	0.3 (0.3-0.4) ✓✓✓ *	322	6,369	5.1 (4.5-5.6) *** *
BSS	95	55,147	0.2 (0.1-0.2) ✓✓✓ *	156	7,006	2.2 (1.9-2.6) ✓✓✓ *
BSHC	14	13,012	0.1 (0.1-0.2) ✓✓✓ *	93	6,687	1.4 (1.1-1.7) ✓✓✓ *
BSA Total	445	219,789	0.2 (0.2-0.2) ✓✓✓ *	1,729	46,681	3.7 (3.5-3.9) *** *

Poisson 95% Confidence Intervals presented. Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

\* 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

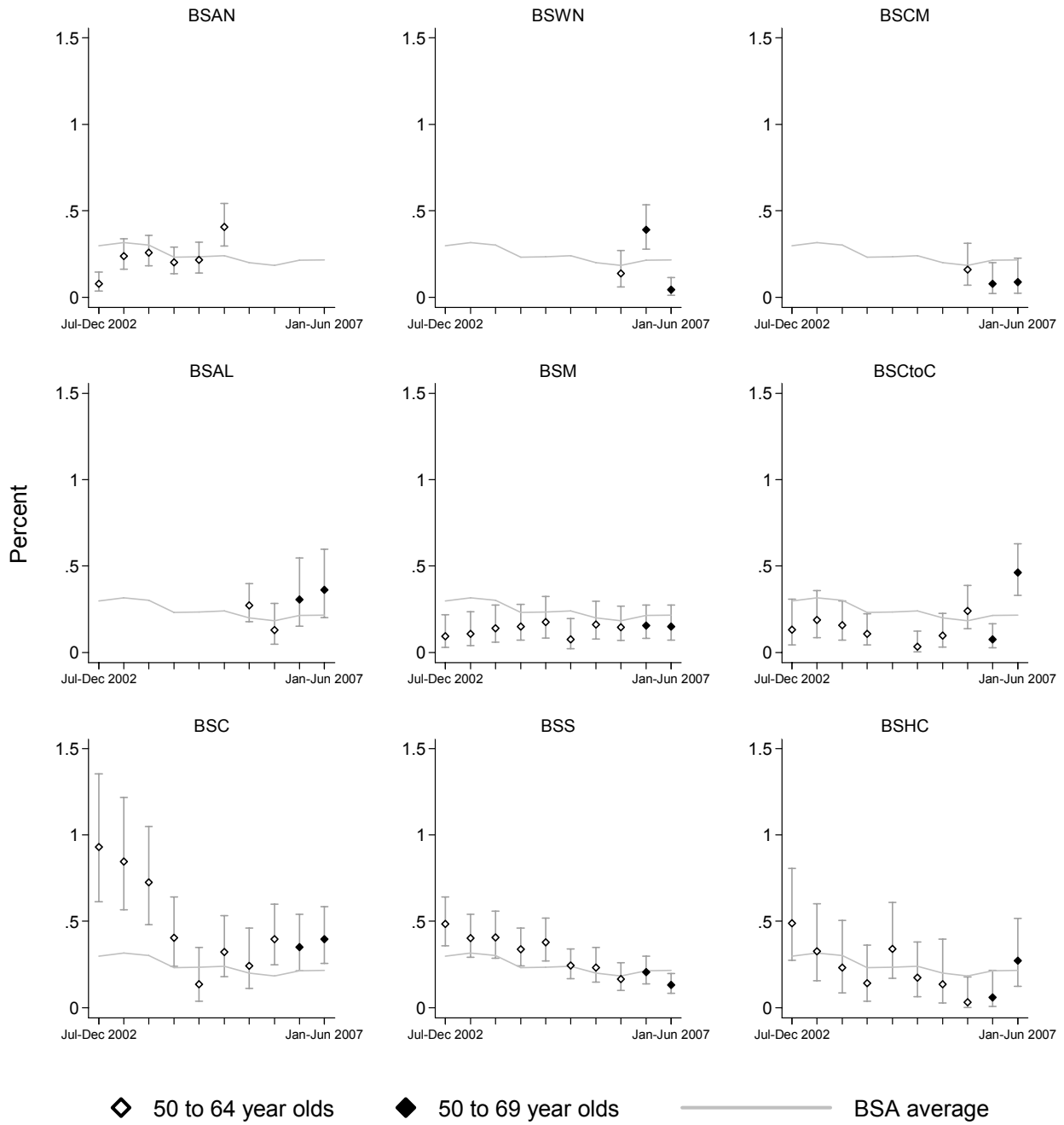
xxx Difference of ≥10% magnitude worse than target value and statistically significant

### Comment:

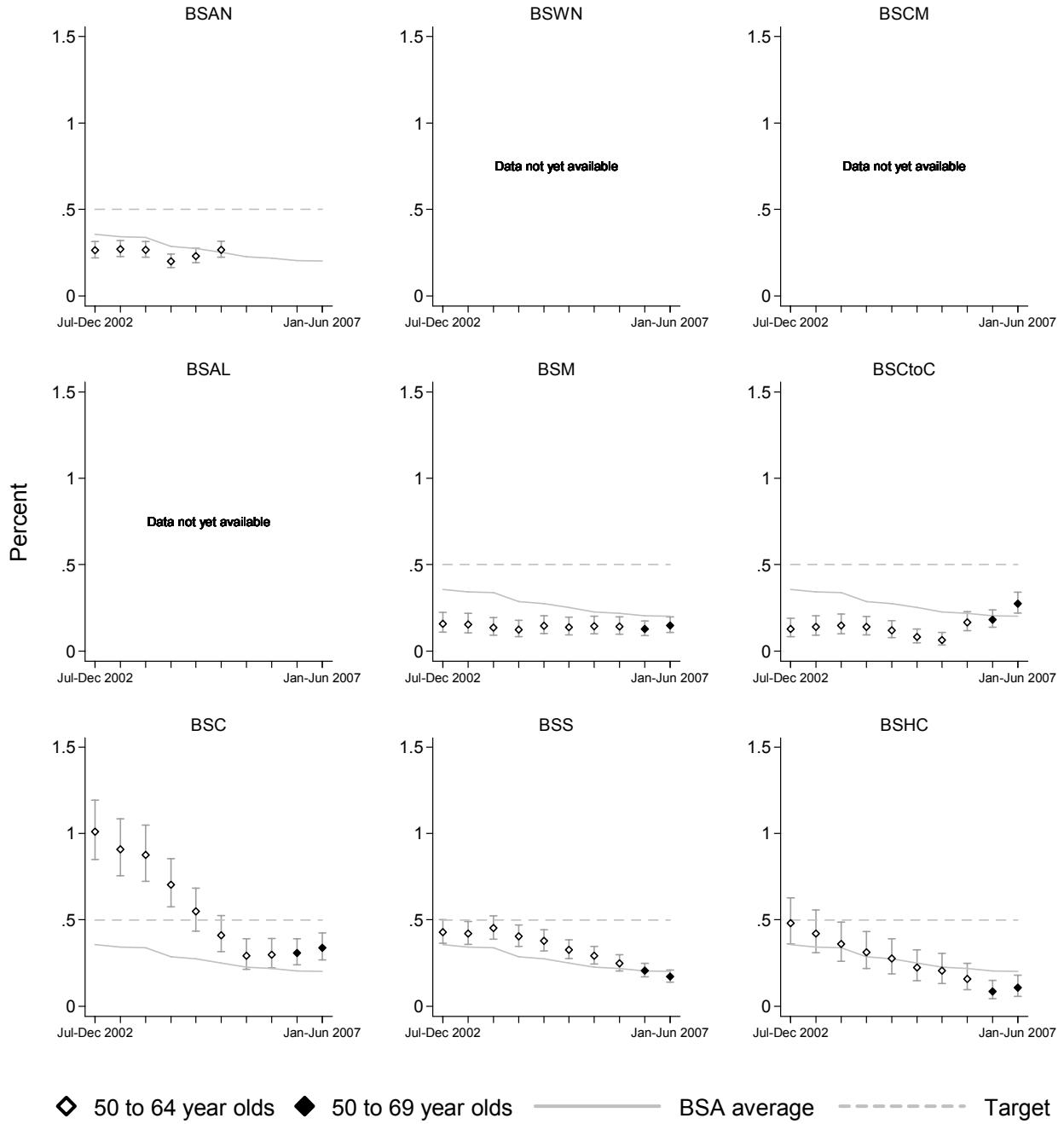
#### Women having technical recall as a percentage of women screened, last 2 years, 50-69 years

The BSA program percentage (0.2%) was statistically below the target of <0.5% for fixed sites, but for mobile sites the BSA program percentage (3.7%) was ≥10% over the target of <3% and was statistically different. Three Lead Providers (BSM, BSCtoC and BSC) had estimates significantly over the target value for mobile sites. Overall BSA technical recall has remained similar over time (Figure 2b2).

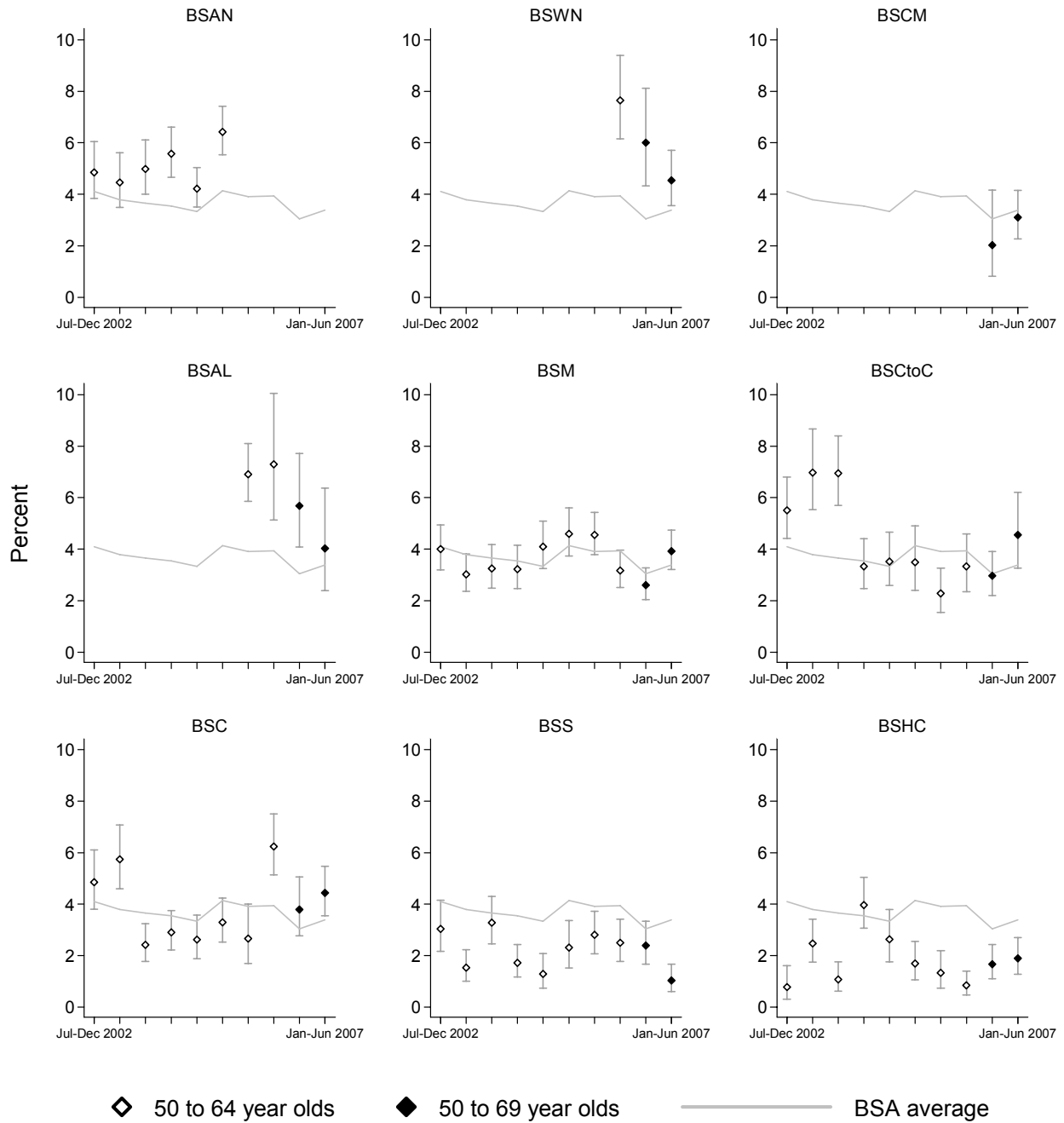
**Figure 2b1: Technical recall rates for fixed sites, women aged 50-69 years, fixed sites, last 6 months**



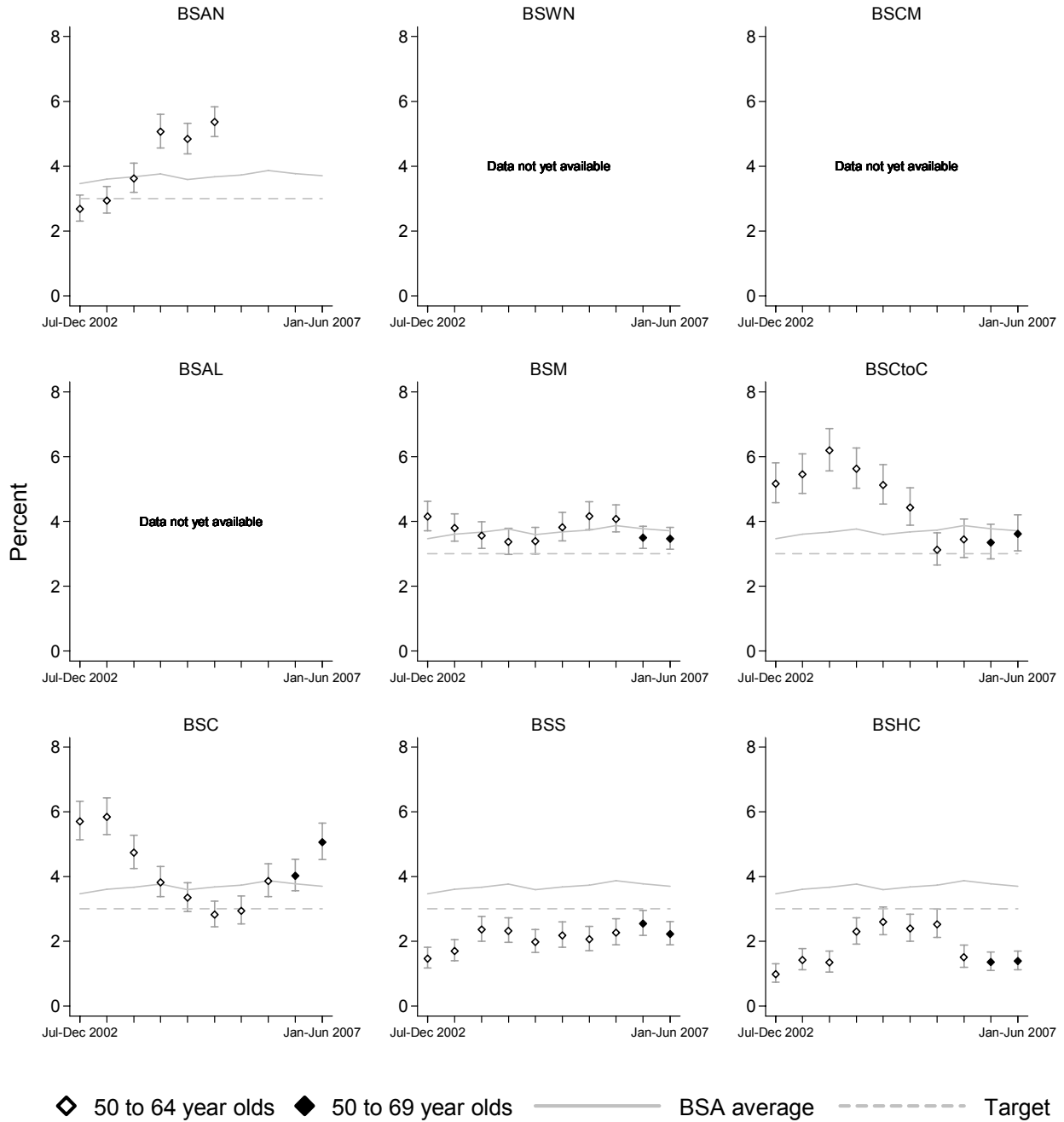
**Figure 2b1: Technical recall rates for fixed sites, women aged 50-69 years, fixed sites, last years**



**Figure 2b.2a: Technical recall rates for mobile sites, women aged 50-64 years, last 6 months**



**Figure 2b.2b: Technical recall rates for mobile sites, women aged 50-64 years, last 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, last 6 Months

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

	Fixed site			Mobile site		
	Films rejected	Total films taken	% (95%CI)	Films rejected	Total films taken	% (95%CI)
<i>45-49 years</i>						
BSWN	117	12,503	0.9 (0.8-1.1)	28	1,509	1.9 (1.2-2.7)
BSCM	76	6,705	1.1 (0.9-1.4)	27	2,918	0.9 (0.6-1.3)
BSAL	58	5,680	1.0 (0.8-1.3)	4	953	0.4 (0.1-1.1)
BSM	42	7,373	0.6 (0.4-0.8)	15	2,870	0.5 (0.3-0.9)
BSCtoC	109	9,270	1.2 (1.0-1.4)	5	934	0.5 (0.2-1.2)
BSC	48	6,367	0.8 (0.6-1.0)	1	987	0.1 (0.0-0.6)
BSS	143	16,246	0.9 (0.7-1.0)	7	1,695	0.4 (0.2-0.9)
BSHC	20	1,915	1.0 (0.6-1.6)	3	1,390	0.2 (0.0-0.6)
<b>BSA Total</b>	<b>613</b>	<b>66,059</b>	<b>0.9 (0.9-1.0)</b>	<b>90</b>	<b>13,256</b>	<b>0.7 (0.5-0.8)</b>
<i>50-69 years</i>						
BSWN	376	38,699	1.0 (0.9-1.1)	80	7,020	1.1 (0.9-1.4)
BSCM	248	19,111	1.3 (1.1-1.5)	33	6,066	0.5 (0.4-0.8)
BSAL	152	17,802	0.9 (0.7-1.0)	3	1,998	0.2 (0.0-0.4)
BSM	160	27,524	0.6 (0.5-0.7)	53	11,314	0.5 (0.4-0.6)
BSCtoC	424	35,931	1.2 (1.1-1.3)	40	3,863	1.0 (0.7-1.4)
BSC	284	26,122	1.1 (1.0-1.2)	13	8,033	0.2 (0.1-0.3)
BSS	642	72,161	0.9 (0.8-1.0)	26	6,787	0.4 (0.3-0.6)
BSHC	268	14,055	1.9 (1.7-2.1)	13	6,476	0.2 (0.1-0.3)
<b>BSA Total</b>	<b>2,554</b>	<b>251,405</b>	<b>1.0 (1.0-1.1)</b>	<b>261</b>	<b>51,557</b>	<b>0.5 (0.4-0.6)</b>

Poisson 95% Confidence Intervals presented

### Comment:

#### Rejected films as a percentage of total films taken, last 6 Months, women aged 50-69 years

The BSA program percentage was below 3% for fixed and mobile sites, with little variability across Lead Providers.

*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, last 2 Years

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

	Fixed site			Mobile site		
	Films rejected	Total films taken	% (95%CI)	Films rejected	Total films taken	% (95%CI)
<i>45-49 years</i>						
BSWN	344	30,548		76	4,352	
BSCM	161	11,745		28	3620	
BSAL	220	14,913		41	6,029	
BSM	232	29,903	0.8 (0.7-0.9)	77	12,729	0.6 (0.5-0.8)
BSCtoC	283	28,354	1.0 (0.9-1.1)	34	4,978	0.7 (0.5-1.0)
BSC	205	23,417	0.9 (0.8-1.0)	16	6,031	0.3 (0.2-0.4)
BSS	866	79,777	1.1 (1.0-1.2)	78	11,393	0.7 (0.5-0.9)
BSHC	134	9,654	1.4 (1.2-1.6)	24	7,605	0.3 (0.2-0.5)
BSA Total	2,445	228,311	1.1 (1.0-1.1)	374	56,737	0.7 (0.6-0.7)
<i>50-69 years</i>						
BSWN	1361	111,654		274	16,308	
BSCM	1065	72,375		42	7,957	
BSAL	1,311	108,669		220	19,690	
BSM	918	123,389	0.7 (0.7-0.8) ✓✓✓ *	235	50,982	0.5 (0.4-0.5) ✓✓✓ *
BSCtoC	1,246	128,640	1.0 (0.9-1.0) ✓✓✓ *	162	20,264	0.8 (0.7-0.9) ✓✓✓ *
BSC	851	94,287	0.9 (0.8-1.0) ✓✓✓ *	79	26,583	0.3 (0.2-0.4) ✓✓✓ *
BSS	2,293	229,256	1.0 (1.0-1.0) ✓✓✓ *	201	29,470	0.7 (0.6-0.8) ✓✓✓ *
BSHC	837	55,029	1.5 (1.4-1.6) ✓✓✓ *	67	27,415	0.2 (0.2-0.3) ✓✓✓ *
BSA Total	9,882	923,299	1.1 (1.0-1.1) ✓✓✓ *	1,280	198,669	0.6 (0.6-0.7) ✓✓✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

### Comment:

#### 2.c.2. Rejected films as a percentage of total films taken, last 2 Years, women aged 50-69 years

The BSA program percentage reached the target of <3% for fixed and mobile sites, with all Lead Providers ≥10% below the target value.

## 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, last 6 Months

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

	Initial			Subsequent		
	Referral to assessment	Women screened	% (95%CI)	Referral to assessment	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	286	2,912	9.8 (8.7-11.0)	13	381	3.4 (1.8-5.8)
BSCM	187	2,114	8.8 (7.6-10.2)	6	148	4.1 (1.5-8.8)
BSAL	99	1,368	7.2 (5.9-8.8)	5	152	3.3 (1.1-7.7)
BSM	122	1,521	8.0 (6.7-9.6)	42	946	4.4 (3.2-6.0)
BSCtoC	132	1,910	6.9 (5.8-8.2)	10	529	1.9 (0.9-3.5)
BSC	120	1,297	9.3 (7.7-11.1)	22	477	4.6 (2.9-7.0)
BSS	264	4,155	6.4 (5.6-7.2)	4	153	2.6 (0.7-6.7)
BSHC	39	388	10.1 (7.1-13.7)	23	412	5.6 (3.5-8.4)
BSA Total	1,249	15,665	8.0 (7.5-8.4)	125	3198	3.9 (3.3-4.7)
<i>50-69 years</i>						
BSWN	232	2,352	9.9 (8.6-11.2)	286	8,304	3.4 (3.1-3.9)
BSCM	108	1,268	8.5 (7.0-10.3)	111	4,699	2.4 (1.9-2.8)
BSAL	89	991	9.0 (7.2-11.1)	97	3,595	2.7 (2.2-3.3)
BSM	91	971	9.4 (7.5-11.5)	285	8,397	3.4 (3.0-3.8)
BSCtoC	110	1,472	7.5 (6.1-9.0)	152	8,059	1.9 (1.6-2.2)
BSC	85	908	9.4 (7.5-11.6)	242	7,355	3.3 (2.9-3.7)
BSS	105	1,517	6.9 (5.7-8.4)	377	17,506	2.2 (1.9-2.4)
BSHC	40	329	12.2 (8.7-16.6)	151	4,568	3.3 (2.8-3.9)
BSA Total	860	9,808	8.8 (8.2-9.4)	1,701	62,483	2.7 (2.6-2.9)

Poisson 95% Confidence Intervals presented

### Comment:

#### Referral to Assessment as a percentage of Women screened, last 6 Months, women aged 50-69 years

For initial screens, the BSA program percentage was 8.8%, which is above the desired value of 7% but less than the expected value of <10%. There was significant variation among Lead Providers. The 95% confidence interval did not contain the desired target value for four Lead Providers (BSWN, BSM, BSC, BSHC). The overall trend for BSA has remained relatively stable since 2001 (Figure 2d.1). For subsequent screens, the BSA program percentage and all Lead Providers were below 5%. A slight decreasing trend for BSA overall is evident for referrals to assessment for subsequent screens (Figure 2d.2).

*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.2. Referral to Assessment as a percentage of Women screened, last 2 Years**

**Table 2d.2: Referral to assessment as a percentage of women screened, last 2 years**

	Initial			Subsequent		
	Referral to assessment	Women screened	% (95%CI)	Referral to assessment	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	662	7,678		19	440	
BSCM	329	3,462		6	150	
BSAL	363	4,683		5	174	
BSM	854	9,090	9.4 (8.8-10.0)	48	1045	4.6 (3.4-6.1)
BSCtoC	543	7,366	7.4 (6.8-8.0)	15	620	2.4 (1.4-4.0)
BSC	540	6,531	8.3 (7.6-9.0)	31	567	5.5 (3.7-7.8)
BSS	1,357	21,623	6.3 (5.9-6.6)	5	182	2.7 (0.9-6.4)
BSHC	309	3,583	8.6 (7.7-9.6)	33	572	5.8 (4.0-8.1)
BSA Total	4,957	64,016	7.7 (7.5-8.0)	162	3750	4.3 (3.7-5.0)
<i>50-69 years</i>						
BSWN	490	5,992		738	23,470	
BSCM	461	4,207		525	14,815	
BSAL	471	5,735		721	24,098	
BSM	519	5,417	9.6 (8.8-10.4) ✓ ns	1,307	36,191	3.6 (3.4-3.8) ✓✓✓ *
BSCtoC	431	5,284	8.2 (7.4-9.0) ✓✓✓ *	701	30,339	2.3 (2.1-2.5) ✓✓✓ *
BSC	386	4,432	8.7 (7.9-9.6) ✓✓✓ *	843	24,638	3.4 (3.2-3.7) ✓✓✓ *
BSS	527	7,550	7.0 (6.4-7.6) ✓✓✓ *	1,325	54,603	2.4 (2.3-2.6) ✓✓✓ *
BSHC	210	2,261	9.3 (8.1-10.6) ✓ ns	467	17,438	2.7 (2.4-2.9) ✓✓✓ *
BSA Total	3,495	40,878	8.5 (8.3-8.8) ✓✓✓ *	6,627	225,592	2.9 (2.9-3.0) ✓✓✓ *

Note. Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

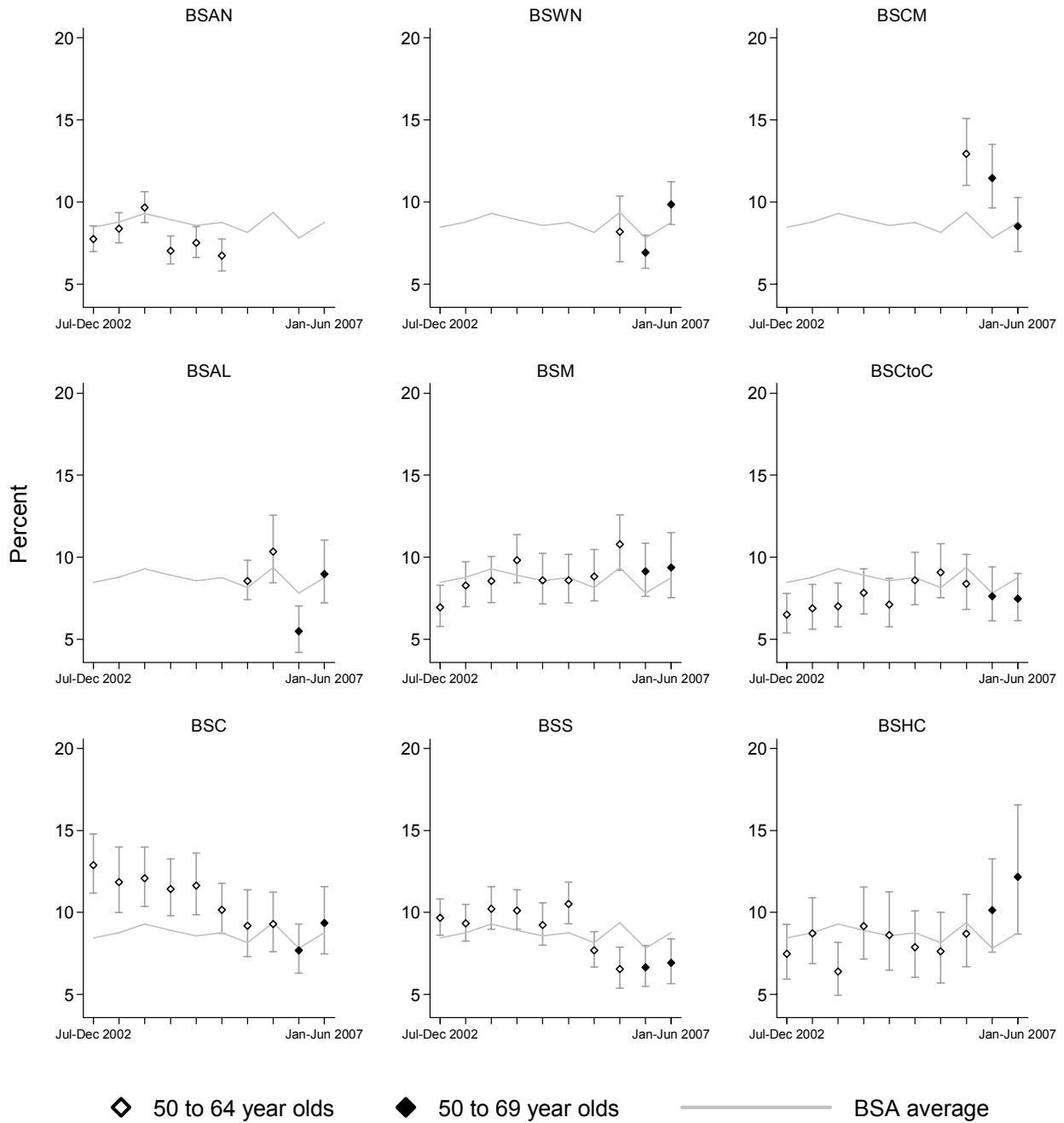
xxx Difference of ≥10% magnitude worse than target value and statistically significant

**Comment:**

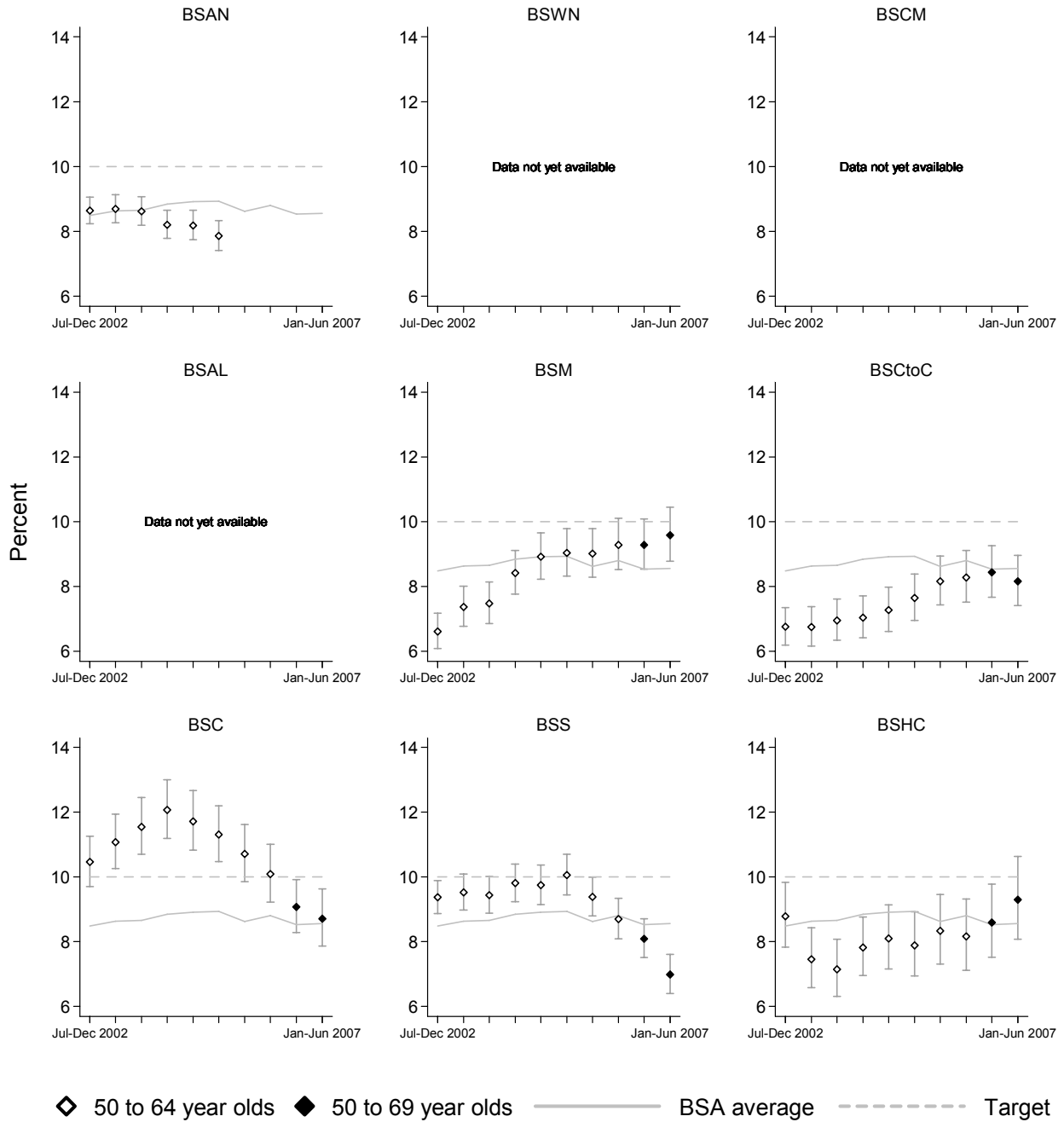
**Referral to Assessment as a percentage of Women screened, last 2 Years, women 50-69 years**

For initial screens the BSA program percentage (8.5%), and all Lead Providers, met the expected target value of <10% for the biennium, but not the desired value of 7%, except for BSS which was 7%. Trends in BSA biennial referral to assessment for initial screens have remained stable (Figure 2d.1). For subsequent screens, the BSA percentage (2.9%) met the desired value of <4%, which was also the case for all Lead Providers. Biennial referral to assessment for subsequent screens has decreased slightly over time (Figure 2d.2).

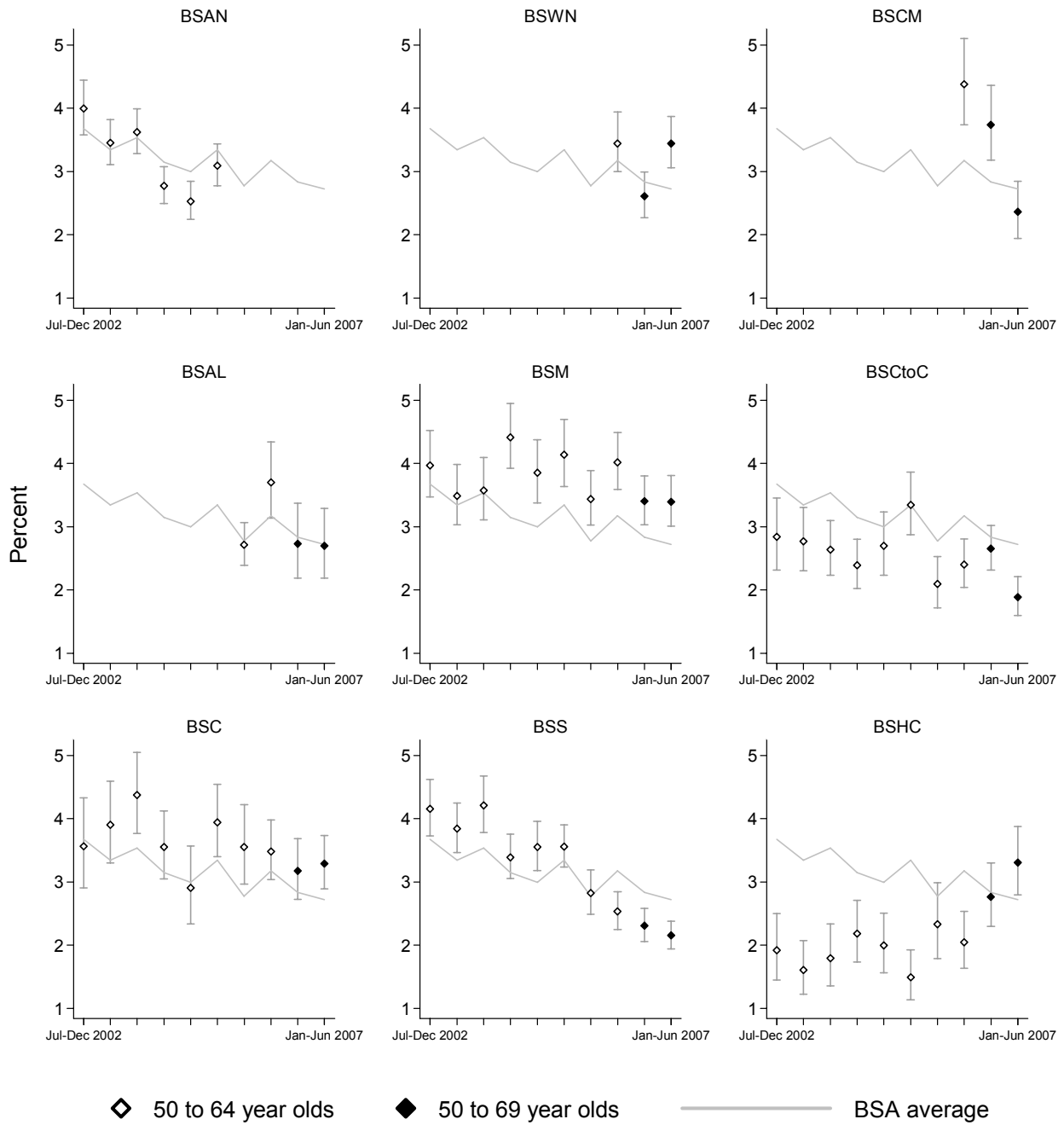
**Figure 2d.1: Trends in referral to assessment for initial screens, 6 month rate**



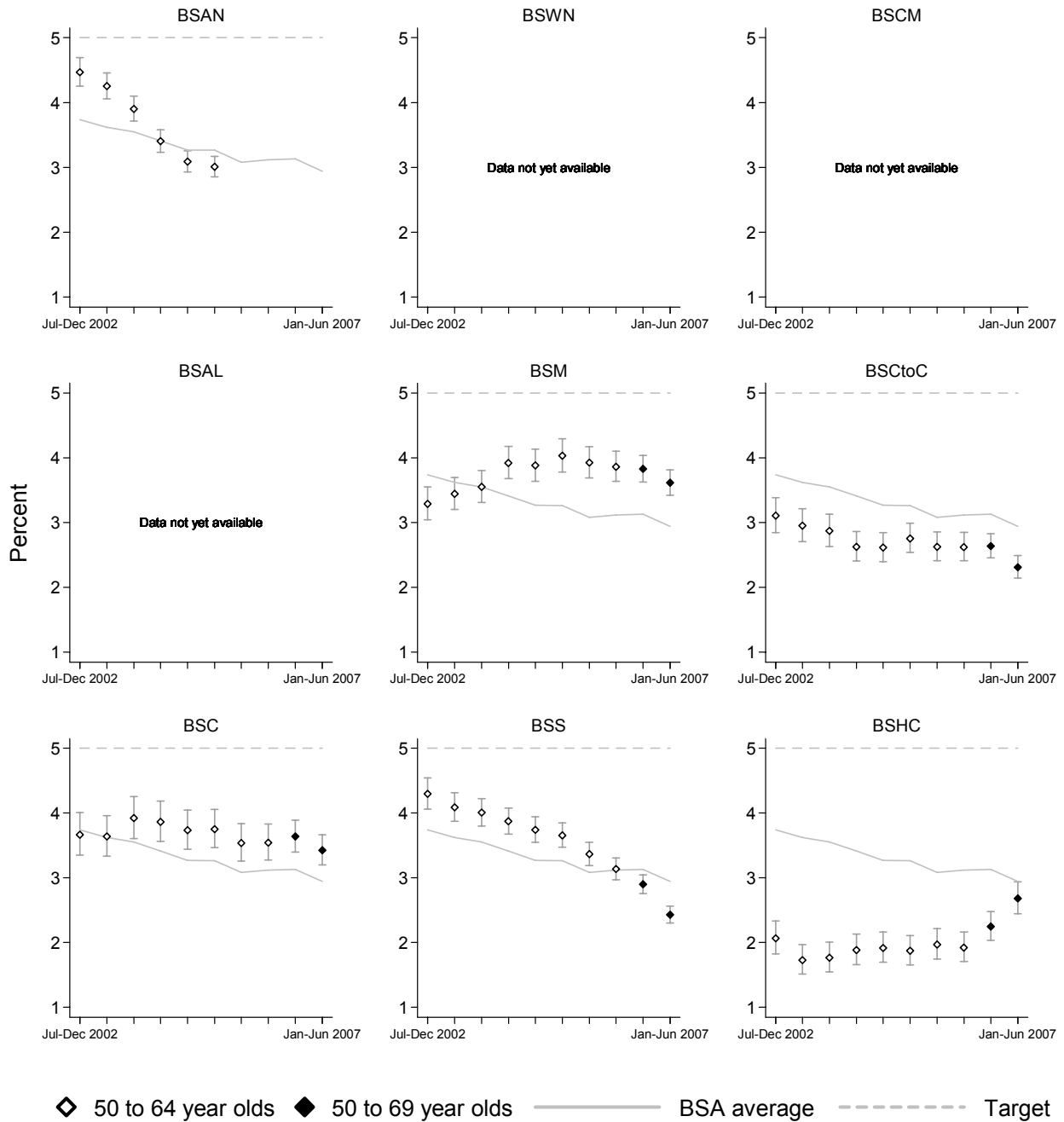
**Figure 2d.1: Trends in referral to assessment for initial screens, biennial rate**



**Figure 2d.2: Trends in referral to assessment for subsequent screens, 6 month rate**



**Figure 2d.2: Trends in referral to assessment for subsequent screens, biennial rate**





## 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

### 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, last 6 months

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

	Initial			Subsequent		
	Number of false positives	Women screened	% (95%CI)	Number of false positives	Women screened	% (95%CI)
<i>45-49 years</i>						
BSWN	256	2,912	8.8 (7.8-9.9)	11	381	2.9 (1.4-5.1)
BSCM	176	2,114	8.3 (7.2-9.6)	4	148	2.7 (0.7-6.8)
BSAL	72	1,368	5.3 (4.1-6.6)	5	152	3.3 (1.1-7.5)
BSM	106	1,521	7.0 (5.7-8.4)	37	946	3.9 (2.8-5.4)
BSCtoC	122	1,910	6.4 (5.3-7.6)	8	529	1.5 (0.7-3.0)
BSC	114	1,297	8.8 (7.3-10.5)	18	477	3.8 (2.3-5.9)
BSS	234	4,155	5.6 (5.0-6.4)	3	153	2.0 (0.4-5.6)
BSHC	35	388	9.0 (6.4-12.3)	19	412	4.6 (2.8-7.1)
BSA Total	1,115	15,665	7.1 (6.7-7.5)	105	3198	3.3 (2.7-4.0)
<i>50-69 years</i>						
BSWN	200	2,352	8.5 (7.4-9.7)	225	8,304	2.7 (2.4-3.1)
BSCM	83	1,268	6.5 (5.2-8.1)	83	4,699	1.8 (1.4-2.2)
BSAL	77	991	7.8 (6.2-9.6)	72	3,595	2.0 (1.6-2.5)
BSM	77	971	7.9 (6.3-9.8)	219	8,397	2.6 (2.3-3.0)
BSCtoC	86	1,472	5.8 (4.7-7.2)	105	8,059	1.3 (1.1-1.6)
BSC	78	908	8.6 (6.8-10.6)	197	7,355	2.7 (2.3-3.1)
BSS	72	1,517	4.7 (3.7-5.9)	257	17,506	1.5 (1.3-1.7)
BSHC	36	329	10.9 (7.8-14.8)	125	4,568	2.7 (2.3-3.3)
BSA Total	709	9,808	7.2 (6.7-7.8)	1,283	62,483	2.1 (1.9-2.2)

Exact binomial 95% Confidence Intervals presented

*Description:*

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

*Target:*

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

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

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

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

	Initial			Subsequent						
	Number of false positives	Women screened	% (95%CI)	Number of false positives	Women screened	% (95%CI)				
<i>45-49 years</i>										
BSWN	592	7,678		17	440					
BSCM	309	3,462		4	150					
BSAL	295	4,683		5	174					
BSM	796	9,090	8.8 (8.2-9.4)	43	1045	4.1 (3.0-5.5)				
BSCtoC	496	7,366	6.7 (6.2-7.3)	13	620	2.1 (1.1-3.6)				
BSC	510	6,531	7.8 (7.2-8.5)	26	567	4.6 (3.0-6.6)				
BSS	1,263	21,623	5.8 (5.5-6.2)	4	182	2.2 (0.6-5.5)				
BSHC	288	3,583	8.0 (7.2-9.0)	29	572	5.1 (3.4-7.2)				
BSA Total	4,549	64,016	7.1 (6.9-7.3)	141	3750	3.8 (3.2-4.4)				
<i>50-69 years</i>										
BSWN	412	5,992		573	23,470					
BSCM	408	4,207		442	14,815					
BSAL	377	5,735		560	24,098					
BSM	458	5,417	8.5 (7.7-9.2)	✓	ns	1,061	36,191	2.9 (2.8-3.1)	✓✓✓	*
BSCtoC	366	5,284	6.9 (6.3-7.6)	✓✓✓	*	503	30,339	1.7 (1.5-1.8)	✓✓✓	*
BSC	347	4,432	7.8 (7.1-8.7)	✓✓✓	*	695	24,638	2.8 (2.6-3.0)	✓✓✓	*
BSS	428	7,550	5.7 (5.2-6.2)	✓✓✓	*	991	54,603	1.8 (1.7-1.9)	✓✓✓	*
BSHC	182	2,261	8.0 (7.0-9.2)	✓	ns	375	17,438	2.2 (1.9-2.4)	✓✓✓	*
BSA Total	2,978	40,878	7.3 (7.0-7.5)	✓✓✓	*	5,200	225,592	2.3 (2.2-2.4)	✓✓✓	*

Note. Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

### Description:

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

### Target:

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

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

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

	Initial			Subsequent		
	Number of cancers	Number of referrals	% (95%CI)	Number of cancers	Number of referrals	% (95%CI)
<i>45-49 years</i>						
BSWN	21	286	7.3 (4.6-11.0)	1	13	7.7 (0.2-36.0)
BSCM	10	187	5.3 (2.6-9.6)	2	6	33.3 (4.3-77.7)
BSAL	13	99	13.1 (7.2-21.4)	0	5	0.0 (0.0-52.2)
BSM	7	122	5.7 (2.3-11.5)	3	42	7.1 (1.5-19.5)
BSCtoC	3	132	2.3 (0.5-6.5)	1	10	10.0 (0.3-44.5)
BSC	4	120	3.3 (0.9-8.3)	4	22	18.2 (5.2-40.3)
BSS	14	264	5.3 (2.9-8.7)	0	4	0.0 (0.0-60.2)
BSHC	1	39	2.6 (0.1-13.5)	2	23	8.7 (1.1-28.0)
BSA Total	73	1,249	5.8 (4.6-7.3)	13	125	10.4 (5.7-17.1)
<i>50-69 years</i>						
BSWN	25	232	10.8 (7.1-15.5)	52	286	18.2 (13.9-23.1)
BSCM	17	108	15.7 (9.4-24.0)	24	111	21.6 (14.4-30.4)
BSAL	5	89	5.6 (1.8-12.6)	16	97	16.5 (9.7-25.4)
BSM	6	91	6.6 (2.5-13.8)	33	285	11.6 (8.1-15.9)
BSCtoC	8	110	7.3 (3.2-13.8)	44	152	28.9 (21.9-36.8)
BSC	6	85	7.1 (2.6-14.7)	42	242	17.4 (12.8-22.7)
BSS	17	105	16.2 (9.7-24.7)	68	377	18.0 (14.3-22.3)
BSHC	3	40	7.5 (1.6-20.4)	19	151	12.6 (7.7-19.0)
BSA Total	87	860	10.1 (8.2-12.3)	298	1,701	17.5 (15.7-19.4)

Exact binomial 95% Confidence Intervals presented

### Comment:

#### Breast Cancers as a percentage of Referrals to Assessment, Last 6 Months, women aged 50-69 years

For initial screens the BSA program percentage was 10.1%. There was variation among Lead Providers, with estimates ranging from 5.6% (BSAL) to 16.2% (BSS). For subsequent screens, the overall percentage was 17.5%. All Lead Providers were above 9%, with percentages ranging from 11.6% to 28.9%. Overall BSA percentages have remained similar over the period 2001-2007 (Figure 2f1 and 2f2)

*Description:*

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

*Target:*

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

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

**Table 2f.2: Cancers as a percentage of referrals to assessment, last 2 years**

	Initial			Subsequent		
	Number of cancers	Number of referrals	% (95%CI)	Number of cancers	Number of referrals	% (95%CI)
<i>45-49 years</i>						
BSWN	46	662		1	19	
BSCM	19	329		2	6	
BSAL	37	363		0	5	
BSM	44	854	5.2 (3.8-6.9)	3	48	6.3 (1.3-17.2)
BSCtoC	32	543	5.9 (4.1-8.2)	1	15	6.7 (0.2-31.9)
BSC	28	540	5.2 (3.5-7.4)	5	31	16.1 (5.5-33.7)
BSS	77	1,357	5.7 (4.5-7.0)	0	5	0.0 (0.0-52.2)
BSHC	11	309	3.6 (1.8-6.3)	2	33	6.1 (0.7-20.2)
BSA Total	294	4,957	5.9 (5.3-6.6)	14	162	8.6 (4.8-14.1)
<i>50-69 years</i>						
BSWN	56	490		132	738	
BSCM	43	461		72	525	
BSAL	61	471		122	721	
BSM	47	519	9.1 (6.7-11.9) ✓ ns	198	1,307	15.1 (13.2-17.2) ✓✓✓ *
BSCtoC	44	431	10.2 (7.5-13.5) ✓ ns	179	701	25.5 (22.3-28.9) ✓✓✓ *
BSC	34	386	8.8 (6.2-12.1) ✓ ns	139	843	16.5 (14.0-19.2) ✓✓✓ *
BSS	81	527	15.4 (12.4-18.7) ✓✓✓ *	278	1,325	21.0 (18.8-23.3) ✓✓✓ *
BSHC	17	210	8.1 (4.8-12.6) ✓ ns	73	467	15.6 (12.5-19.2) ✓✓✓ *
BSA Total	383	3,495	11.0 (9.9-12.0) ✓✓✓ *	1,193	6,627	18.0 (17.1-18.9) ✓✓✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

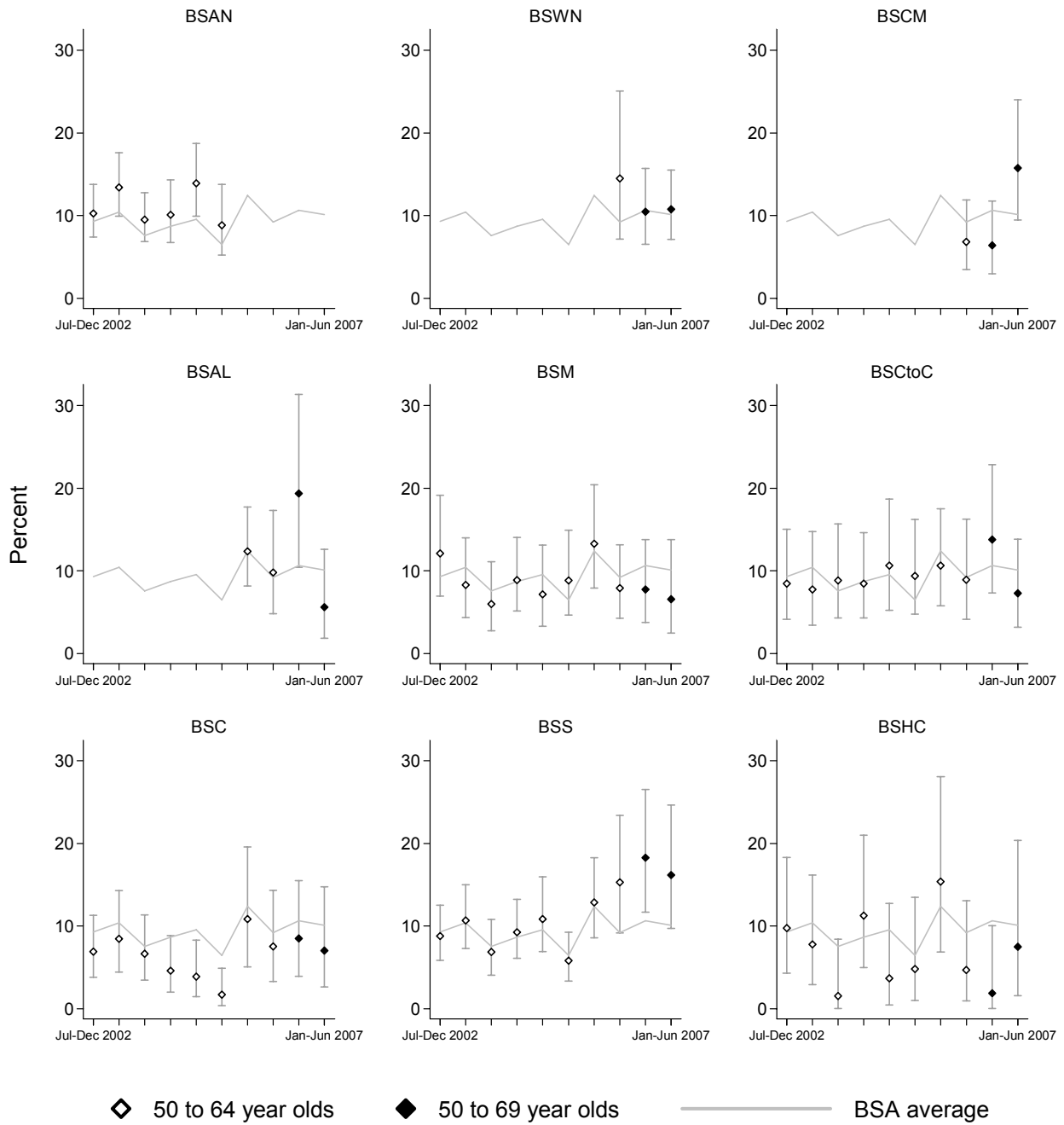
xxx Difference of ≥10% magnitude worse than target value and statistically significant

**Comment:**

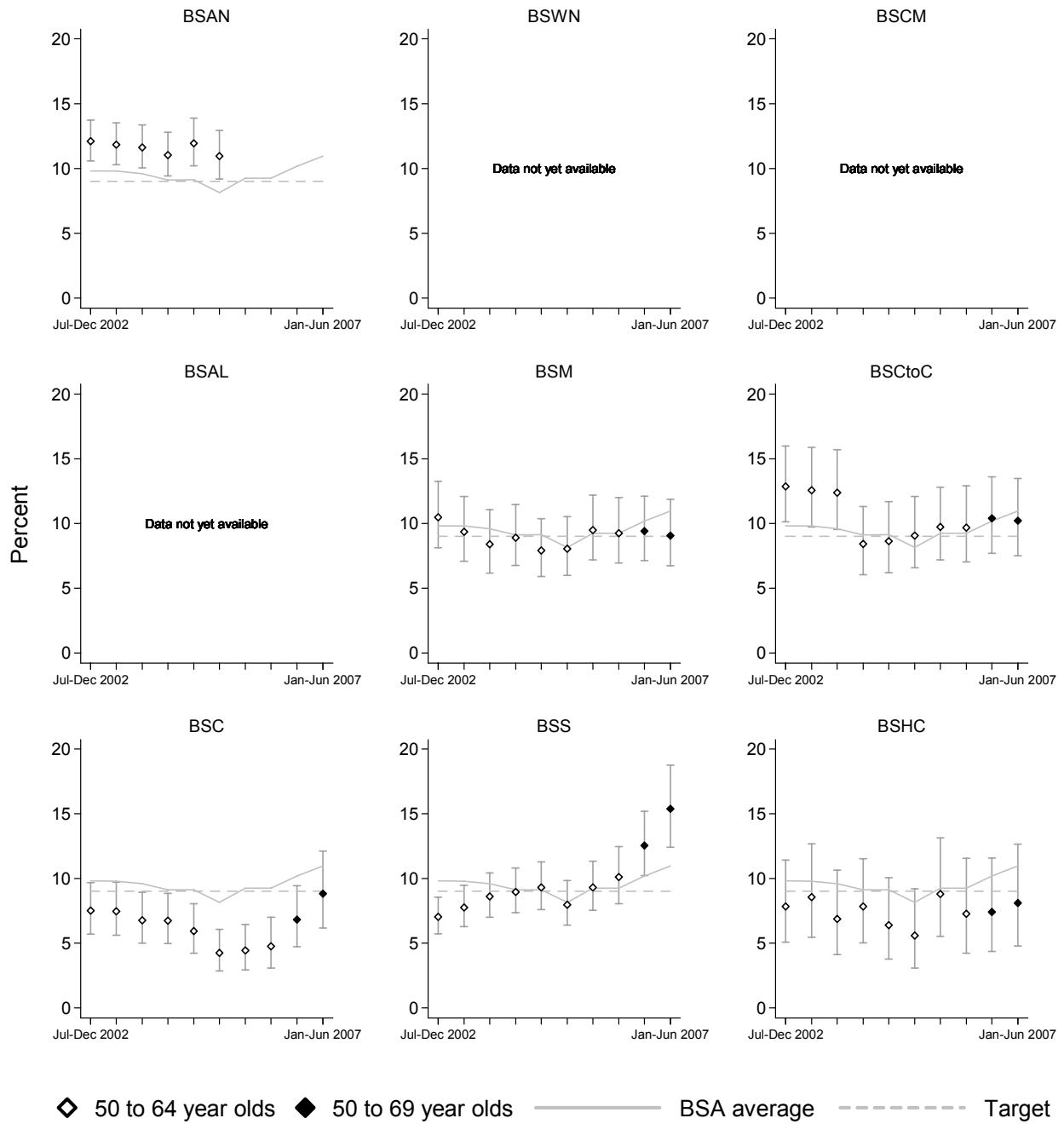
**Breast Cancers as a percentage of Referrals to Assessment, Last 2 Years, women 50-69 years**

For initial screens the BSA program percentage (11.0%) was statistically above the target value of ≥9%, and ≥10% different in relative magnitude. There was variation among Lead Providers with the 95% confidence intervals for all providers containing the target value. For subsequent screens, the overall percentage (18.0%) was statistically higher than the target value of ≥9% and was a difference of ≥10% relative magnitude. This was the case for all Lead Providers. Overall BSA percentages have remained similar over the period 2001-2007 (Figure 2f1 and 2f2)

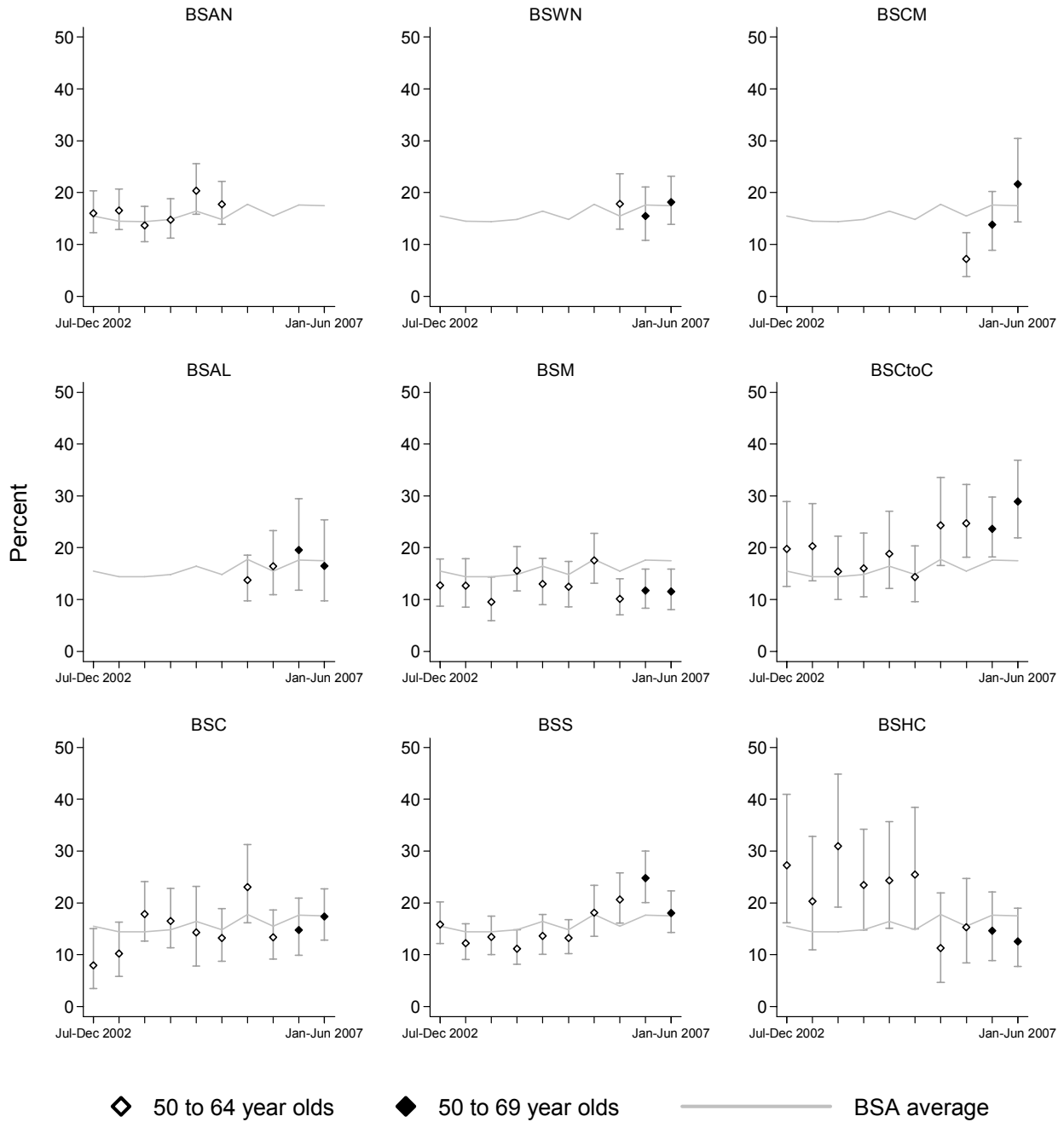
**Figure 2f.1a: Cancers as a percentage of referrals to assessment for initial screens, women 50-69 years, last 6 months**



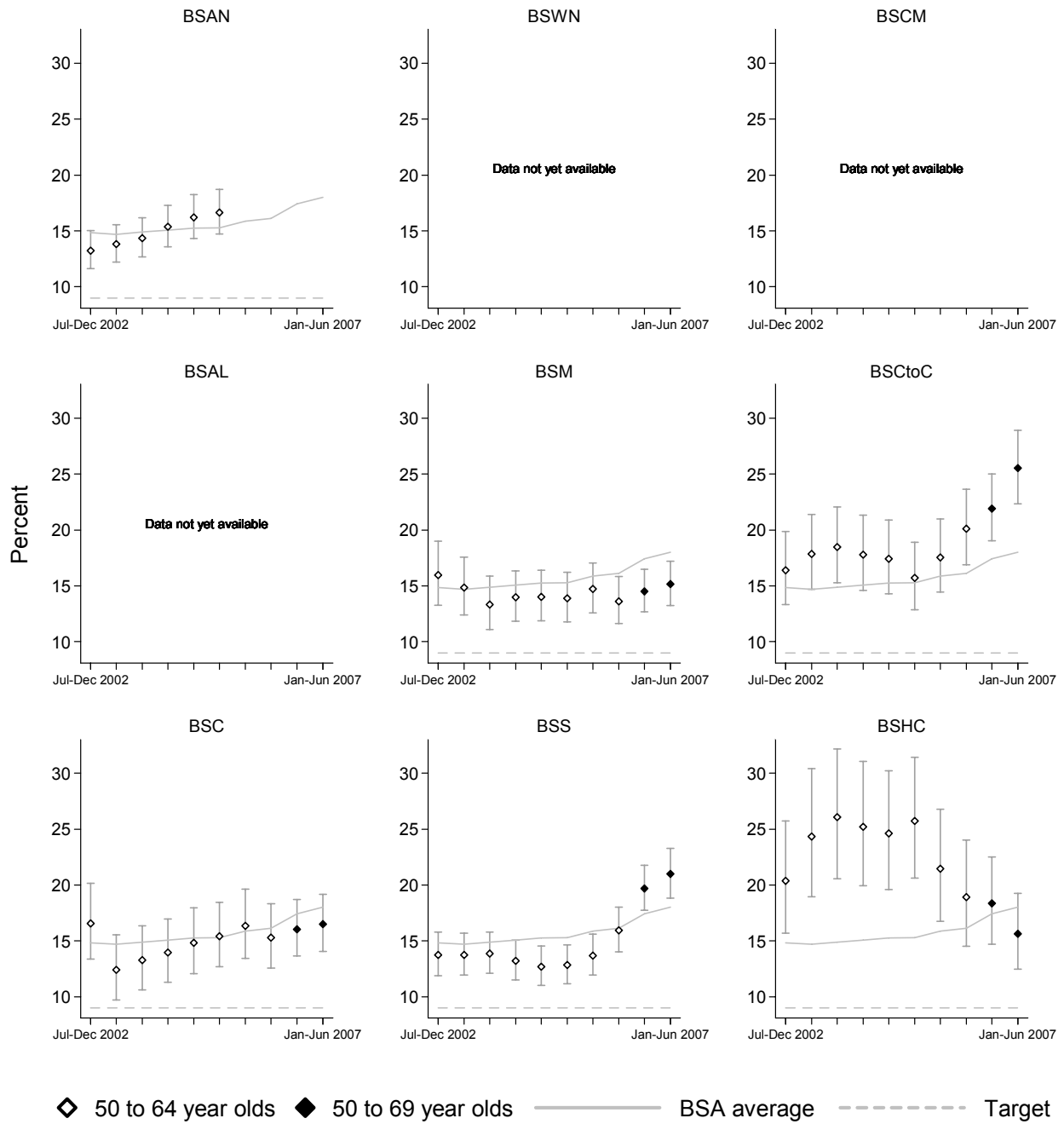
**Figure 2f.1b: Cancers as a percentage of referrals to assessment for initial screens, women 50-69 years, last 2 years**



**Figure 2f.2a: Cancers as a percentage of referrals to assessment for subsequent screens, women 50-69 years, last 6 months**



**Figure 2f.2b: Cancers as a percentage of referrals to assessment for subsequent screens, women 50-69 years, last 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, last 2 years, women aged 45-69 years

**Table 2g: Benign open biopsies weighing < 30 g as a percent of all benign open biopsies, last 2 years**

	Total benign open biopsies	≤30 gm	% (95% CIs)	31-50 gm	% (95% CIs)	51-70 gm	% (95% CIs)	≥70 gm	% (95% CIs)	Unknown	% (95% CIs)
<i>45-49 years</i>											
BSWN	15	10		3		1		0		1	
BSCM	7	6		1		0		0		0	
BSAL	11	11		0		0		0		0	
BSM	17	16	94.1 (71.3-99.9)	1	5.9 (0.1-28.7)	0	0.0 (0.0-19.5)	0	0.0 (0.0-19.5)	0	0.0 (0.0-19.5)
BSCtoC	10	5	50.0 (18.7-81.3)	1	10.0 (0.3-44.5)	2	20.0 (2.5-55.6)	1	10.0 (0.3-44.5)	1	10.0 (0.3-44.5)
BSC	6	4	66.7 (22.3-95.7)	2	33.3 (4.3-77.7)	0	0.0 (0.0-45.9)	0	0.0 (0.0-45.9)	0	0.0 (0.0-45.9)
BSS	21	13	61.9 (38.4-81.9)	2	9.5 (1.2-30.4)	2	9.5 (1.2-30.4)	4	19.0 (5.4-41.9)	0	0.0 (0.0-16.1)
BSHC	10	6	60.0 (26.2-87.8)	2	20.0 (2.5-55.6)	2	20.0 (2.5-55.6)	0	0.0 (0.0-30.8)	0	0.0 (0.0-30.8)
<b>BSA Total</b>	<b>97</b>	<b>71</b>	<b>73.2 (63.2-81.7)</b>	<b>12</b>	<b>12.4 (6.6-20.6)</b>	<b>7</b>	<b>7.2 (3.0-14.3)</b>	<b>5</b>	<b>5.2 (1.7-11.6)</b>	<b>2</b>	<b>2.1 (0.3-7.3)</b>
<i>50-69 years</i>											
BSWN	22	19		1		1		0		1	
BSCM	18	16		1		1		0		0	
BSAL	39	37		2		0		0		0	
BSM	35	25	71.4 (53.7-85.4)	5	14.3 (4.8-30.3)	1	2.9 (0.1-14.9)	1	2.9 (0.1-14.9)	3	8.6 (1.8-23.1)
BSCtoC	19	5	26.3 (9.1-51.2)	3	15.8 (3.4-39.6)	0	0.0 (0.0-17.6)	1	5.3 (0.1-26.0)	10	52.6 (28.9-75.6)
BSC	17	14	82.4 (56.6-96.2)	1	5.9 (0.1-28.7)	1	5.9 (0.1-28.7)	0	0.0 (0.0-19.5)	1	5.9 (0.1-28.7)
BSS	27	17	63.0 (42.4-80.6)	8	29.6 (13.8-50.2)	1	3.7 (0.1-19.0)	1	3.7 (0.1-19.0)	0	0.0 (0.0-12.8)
BSHC	24	17	70.8 (48.9-87.4)	2	8.3 (1.0-27.0)	1	4.2 (0.1-21.1)	0	0.0 (0.0-14.2)	4	16.7 (4.7-37.4)
<b>BSA Total</b>	<b>201</b>	<b>150</b>	<b>74.6 (68.0-80.5)</b>	<b>23</b>	<b>11.4 (7.4-16.7)</b>	<b>6</b>	<b>3.0 (1.1-6.4)</b>	<b>3</b>	<b>1.5 (0.3-4.3)</b>	<b>19</b>	<b>9.5 (5.8-14.4)</b>

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**

	Last 6 months			Last 2 years		
	Preoperative diagnosis of cancer	Number of cancers	% (95%CI)	Preoperative diagnosis of cancer	Number of cancers	% (95%CI)
<i>45-49 years</i>						
BSWN	22	22		41	47	
BSCM	12	12		20	21	
BSAL	11	13		35	37	
BSM	10	10		44	47	93.6 (82.5-98.7)
BSCtoC	4	4		31	33	93.9 (79.8-99.3)
BSC	7	8		27	33	81.8 (64.5-93.0)
BSS	13	14		72	77	93.5 (85.5-97.9)
BSHC	3	3		12	13	92.3 (64.0-99.8)
BSA Total	82	86	95.3 (88.5-98.7)	282	308	91.6 (87.9-94.4)
<i>50-69 years</i>						
BSWN	71	77	92.2 (83.8-97.1) ✓✓✓ *	178	188	
BSCM	38	41	92.7 (80.1-98.5) ✓✓✓ *	109	115	
BSAL	21	21	100.0 (83.9-100.0) ✓✓✓ *	174	183	
BSM	34	39	87.2 (72.6-95.7) ✓✓✓ *	228	245	93.1 (89.1-95.9) ✓✓✓ *
BSCtoC	52	52	100.0 (93.2-100.0) ✓✓✓ *	218	223	97.8 (94.8-99.3) ✓✓✓ *
BSC	48	48	100.0 (92.6-100.0) ✓✓✓ *	162	173	93.6 (88.9-96.8) ✓✓✓ *
BSS	83	85	97.6 (91.8-99.7) ✓✓✓ *	349	359	97.2 (94.9-98.7) ✓✓✓ *
BSHC	19	22	86.4 (65.1-97.1) ✓ ns	79	90	87.8 (79.2-93.7) ✓✓✓ *
BSA Total	366	385	95.1 (92.4-97.0) ✓✓✓ *	1,497	1,576	95.0 (93.8-96.0) ✓✓✓ *

Note: Estimates for small numbers not presented

Due to re-configuration of BSA into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

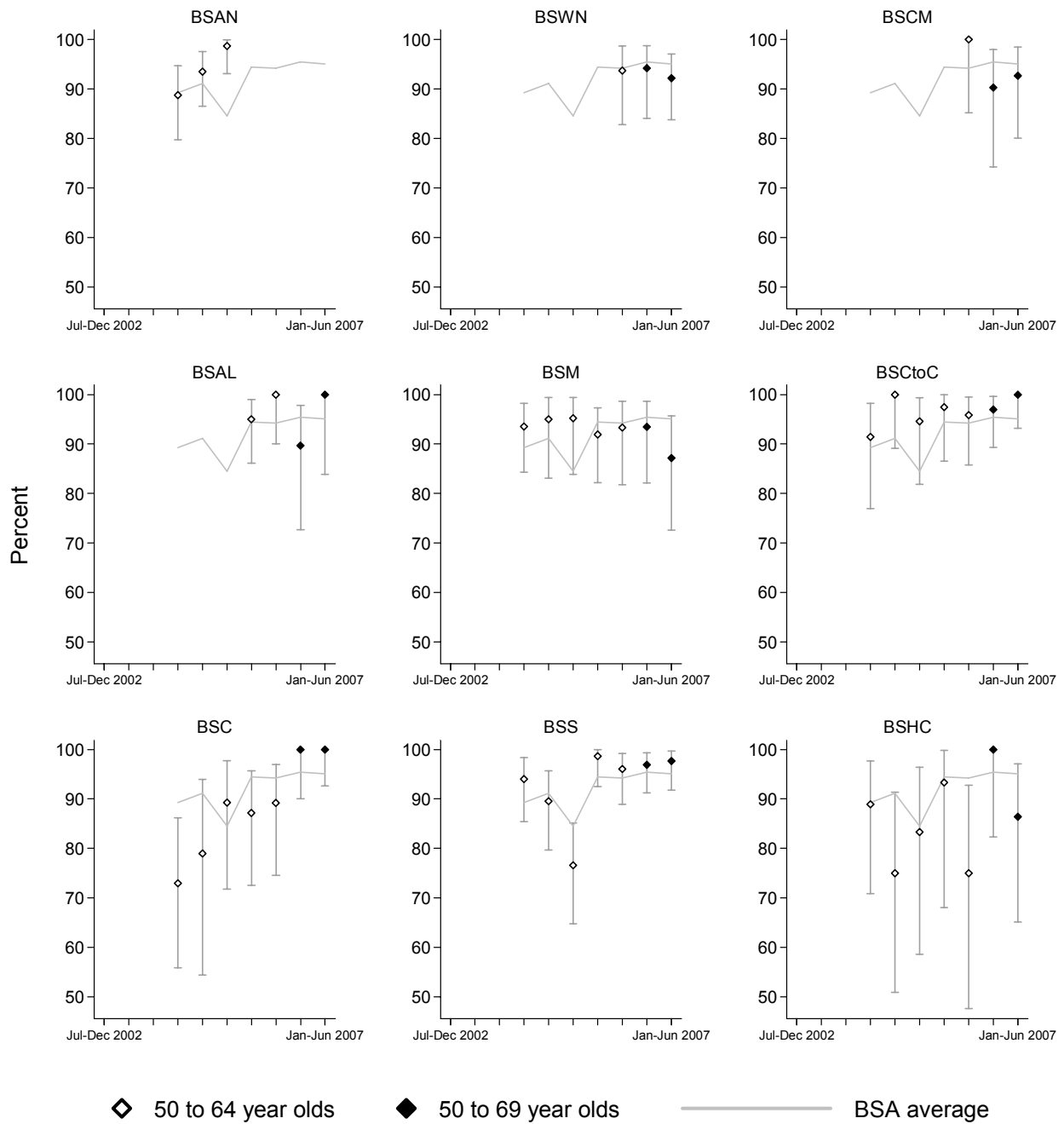
xxx Difference of ≥10% magnitude worse than target value and statistically significant

### Comment:

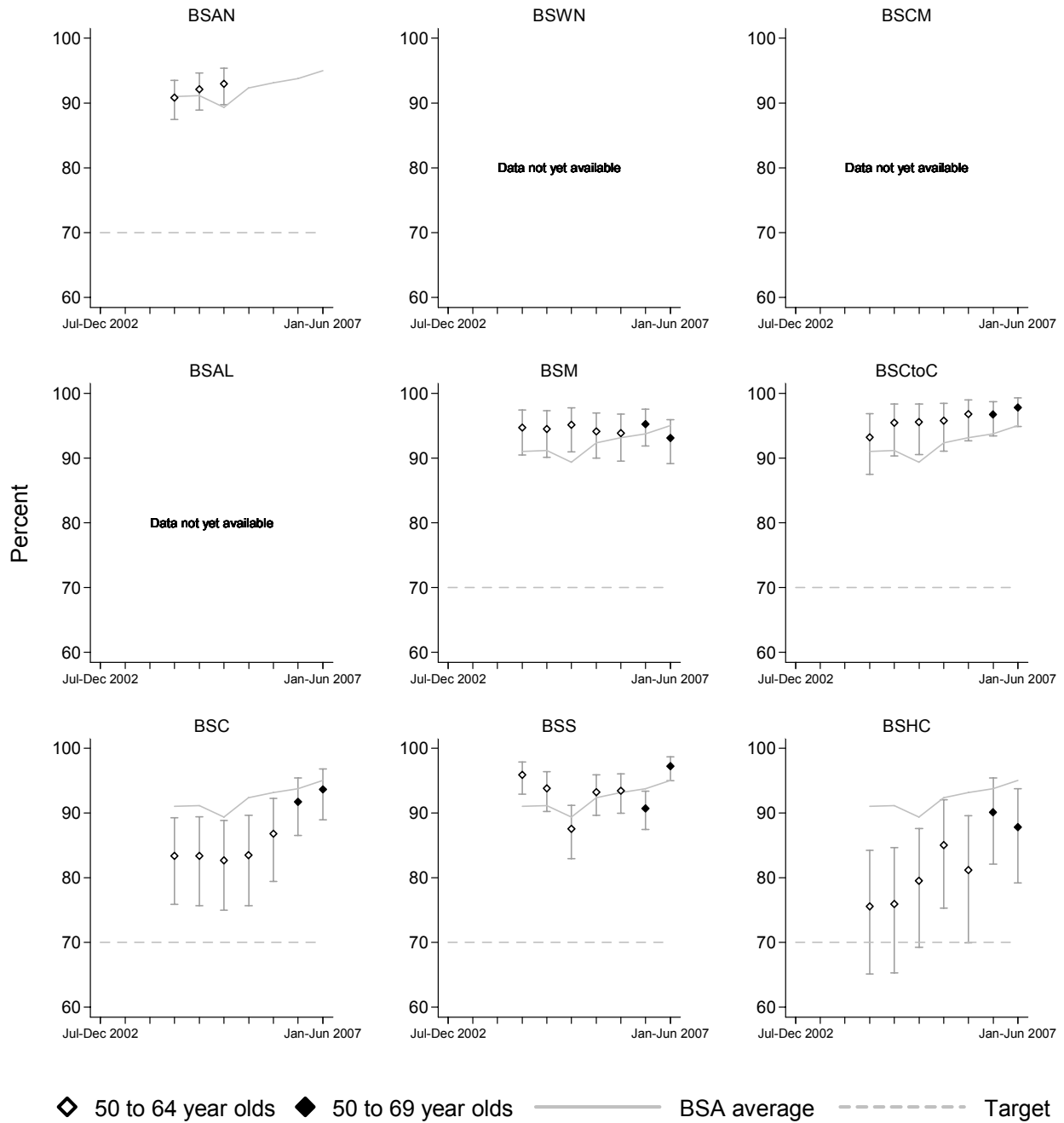
#### Pre-operative diagnosis rate, women aged 50-69 years

For both the last 6 months and the last 2 years the BSA program percentage of women diagnosed by needle biopsy was statistically higher than the expected value of >70% and the desired value of >90%. There was little variation across Lead Providers with all achieving the target. Trends over time indicate that Lead Providers have consistently been above the target value (Figure 2hb).

**Figure 2h.a: Percentage of women with a preoperative diagnosis of cancer, last 6 months**



**Figure 2h.b: Percentage of women with a preoperative diagnosis of cancer, last 2 years**



## 2.1. Specificity

### Description:

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

This is calculated as: number with true negative screening results as a percentage of this number plus the number with false positive screening results.

### Target:

> 93 %

### 2.1.1. Specificity, last 6 months

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

	Initial			Subsequent		
	Negative screens (PRS from Screen)	Negative screen plus False Positives	Estimated Specificity % (95% CI)	Negative screens (PRS from Screen)	Negative screen plus False Positives	Estimated Specificity % (95% CI)
<i>45-49 years</i>						
BSWN	2,626	2,882	91.1 (90.0-92.1)	368	379	97.1 (94.9-98.5)
BSCM	1,927	2,103	91.6 (90.4-92.8)	142	146	97.3 (93.1-99.2)
BSAL	1,269	1,341	94.6 (93.3-95.8)	147	152	96.7 (92.5-98.9)
BSM	1,399	1,505	93.0 (91.5-94.2)	904	941	96.1 (94.6-97.2)
BSCtoC	1,778	1,900	93.6 (92.4-94.6)	519	527	98.5 (97.0-99.3)
BSC	1,177	1,291	91.2 (89.5-92.7)	455	473	96.2 (94.1-97.7)
BSS	3,891	4,125	94.3 (93.6-95.0)	149	152	98.0 (94.3-99.6)
BSHC	349	384	90.9 (87.6-93.6)	389	408	95.3 (92.8-97.2)
<b>BSA Total</b>	<b>14,416</b>	<b>15,531</b>	<b>92.8 (92.4-93.2)</b>	<b>3073</b>	<b>3178</b>	<b>96.7 (96.0-97.3)</b>
<i>50-69 years</i>						
BSWN	2,120	2,320	91.4 (90.2-92.5)	8,018	8,243	97.3 (96.9-97.6)
BSCM	1,160	1,243	93.3 (91.8-94.6)	4,588	4,671	98.2 (97.8-98.6)
BSAL	902	979	92.1 (90.3-93.7)	3,498	3,570	98.0 (97.5-98.4)
BSM	880	957	92.0 (90.0-93.6)	8,112	8,331	97.4 (97.0-97.7)
BSCtoC	1,362	1,448	94.1 (92.7-95.2)	7,907	8,012	98.7 (98.4-98.9)
BSC	823	901	91.3 (89.3-93.1)	7,113	7,310	97.3 (96.9-97.7)
BSS	1,412	1,484	95.1 (93.9-96.2)	17,129	17,386	98.5 (98.3-98.7)
BSHC	289	325	88.9 (85.0-92.1)	4,417	4,542	97.2 (96.7-97.7)
<b>BSA Total</b>	<b>8,948</b>	<b>9,657</b>	<b>92.7 (92.1-93.2)</b>	<b>60,782</b>	<b>62,065</b>	<b>97.9 (97.8-98.0)</b>

Exact binomial 95% Confidence Intervals presented  
 Nb: Interval cancers are not included in calculations.

**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.

**Target:**

> 93 %

**2.1.2. Specificity, last 2 years**

**Table 21.2: Estimated specificity of BSA by Lead Provider, last 2 years**

	Initial			Subsequent		
	Negative screens (PRS from Screen)	Negative screen plus False Positives	Estimated Specificity % (95% CI)	Negative screens (PRS from Screen)	Negative screen plus False Positives	Estimated Specificity % (95% CI)
<i>45-49 years</i>						
BSWN	7,016	7,608		421	438	
BSCM	3,133	3,442		144	148	
BSAL	4,320	4,615		169	174	
BSM	8,236	9,032	91.2 (90.6-91.8)	997	1040	95.9 (94.5-97.0)
BSCtoC	6,823	7,319	93.2 (92.6-93.8)	605	618	97.9 (96.4-98.9)
BSC	5,991	6,501	92.2 (91.5-92.8)	536	562	95.4 (93.3-97.0)
BSS	20,266	21,529	94.1 (93.8-94.4)	177	181	97.8 (94.4-99.4)
BSHC	3,274	3,562	91.9 (91.0-92.8)	539	568	94.9 (92.7-96.6)
BSA Total	59,059	63,608	92.8 (92.6-93.0)	3588	3729	96.2 (95.6-96.8)
<i>50-69 years</i>						
BSWN	5,502	5,914		22,732	23305	
BSCM	3,746	4,154		14,290	14732	
BSAL	5,264	5,641		23,377	23937	
BSM	4,898	5,356	91.4 (90.7-92.2) ✓ *	34,884	35945	97.0 (96.9-97.2) ✓ *
BSCtoC	4,853	5,219	93.0 (92.3-93.7) ✓ ns	29,638	30141	98.3 (98.2-98.5) ✓✓ *
BSC	4,046	4,393	92.1 (91.3-92.9) ✓ *	23,795	24490	97.2 (96.9-97.4) ✓ *
BSS	7,023	7,451	94.3 (93.7-94.8) ✓ *	53,278	54269	98.2 (98.1-98.3) ✓✓ *
BSHC	2,051	2,233	91.8 (90.6-93.0) ✓ *	16,971	17346	97.8 (97.6-98.0) ✓✓ *
BSA Total	37,383	40,361	92.6 (92.4-92.9) ✓ *	218,965	224165	97.7 (97.6-97.7) ✓✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

NB: Interval cancers excluded

**Comment:**

**Specificity, last 2 years, 50-69 years**

For initial screens, BSA program specificity for the biennium was 92.6%, which approached the target value of >93%.

There was little variation across Lead Providers. For subsequent screens the overall specificity for BSA(97.7%), and the specificity for each Lead Provider, achieved the target of >93%.

## 2.m. Benign Biopsy Rate

### 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

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

**Table 2m.2: Benign open biopsies, last 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)
<i>45-49 years</i>						
BSWN	15	7,678		0	440	
BSCM	7	3,462		0	150	
BSAL	11	4,683		0	174	
BSM	17	9,090	1.9 (1.1-3.0)	0	1045	
BSCtoC	10	7,366	1.4 (0.7-2.5)	0	620	
BSC	5	6,531	0.8 (0.2-1.8)	1	567	
BSS	20	21,623	0.9 (0.6-1.4)	0	182	
BSHC	10	3,583	2.8 (1.3-5.1)	0	572	
BSA Total	95	64,016	1.5 (1.2-1.8)	1	3750	
<i>50-69 years</i>						
BSWN	7	5,992		12	23,470	
BSCM	11	4,207		7	14,815	
BSAL	14	5,735		24	24,098	
BSM	12	5,417	2.2 (1.1-3.9) ✓ ns	23	36,191	0.6 (0.4-1.0) ✓✓✓ *
BSCtoC	7	5,284	1.3 (0.5-2.7) ✓✓✓ *	12	30,339	0.4 (0.2-0.7) ✓✓✓ *
BSC	3	4,432	0.7 (0.1-2.0) ✓✓✓ *	12	24,638	0.5 (0.3-0.9) ✓✓✓ *
BSS	5	7,550	0.7 (0.2-1.5) ✓✓✓ *	22	54,603	0.4 (0.3-0.6) ✓✓✓ *
BSHC	7	2,261	3.1 (1.2-6.4) ✓ ns	17	17,438	1.0 (0.6-1.6) ✓✓✓ *
BSA Total	66	40,878	1.6 (1.2-2.1) ✓✓✓ *	129	225,592	0.6 (0.5-0.7) ✓✓✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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  $\geq 10\%$  magnitude better than target value and statistically significant

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

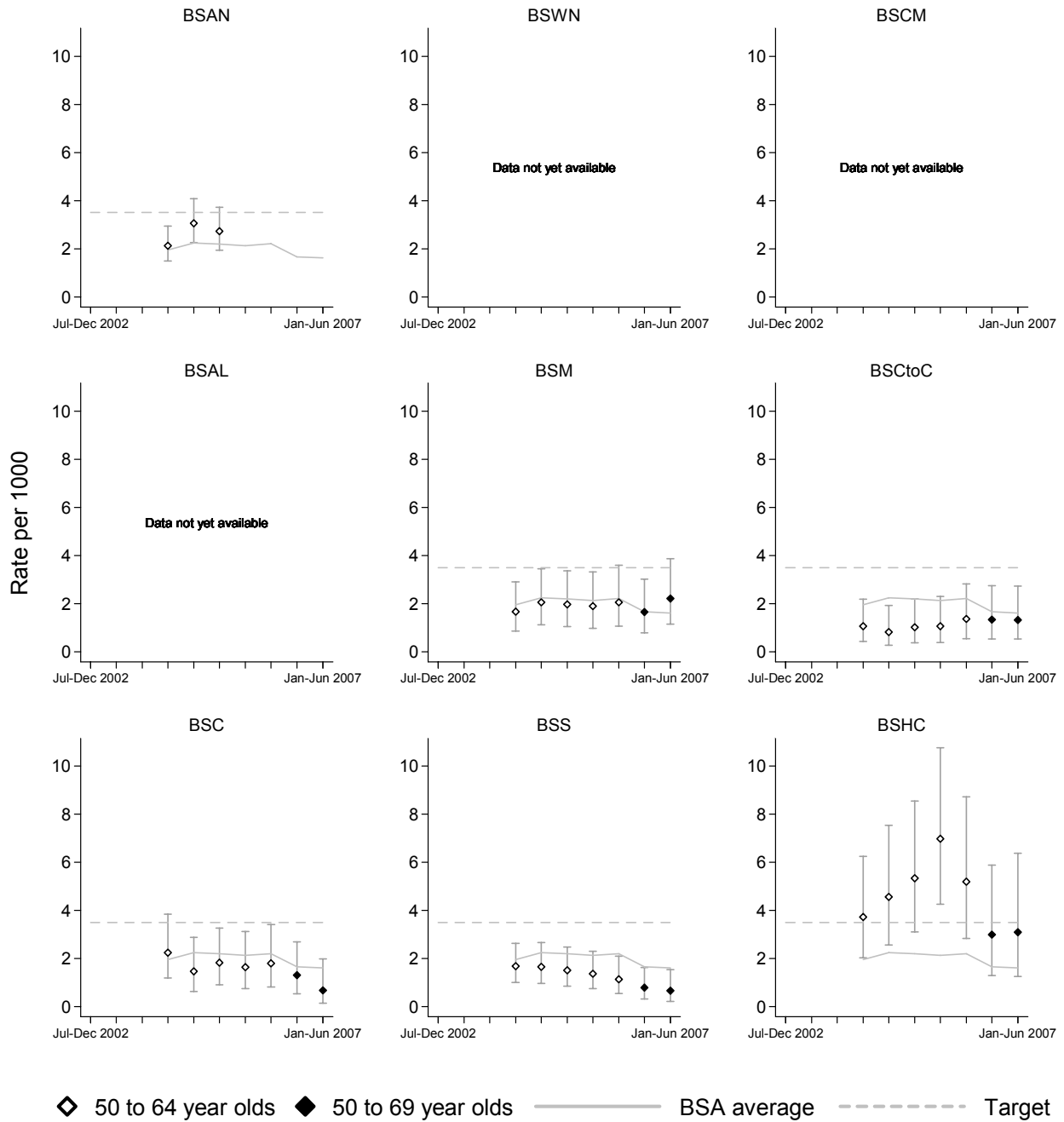
xxx Difference of  $\geq 10\%$  magnitude worse than target value and statistically significant

### Comment:

#### Benign open biopsies, last 2 years, women aged 50-69 years

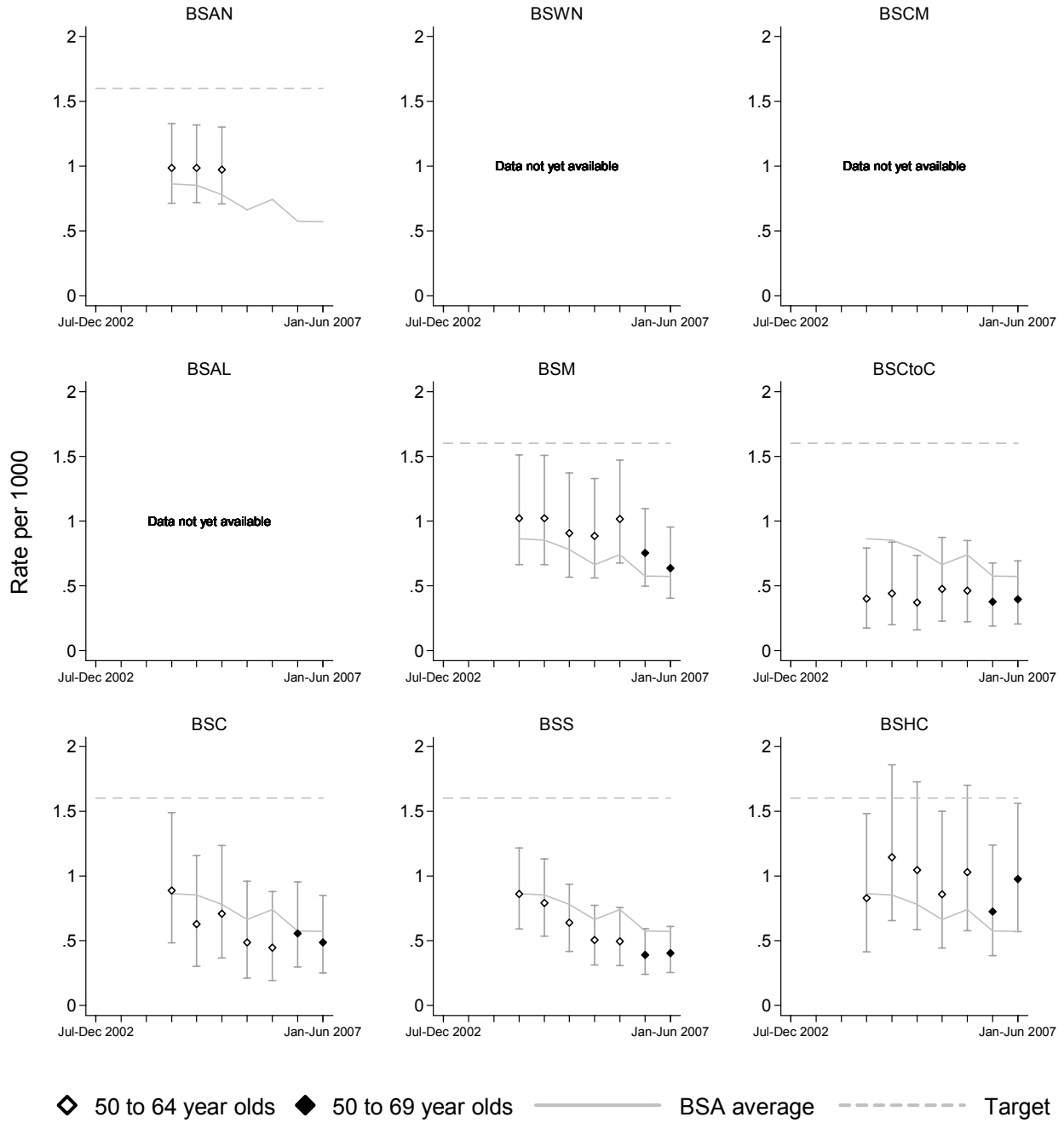
For initial screens the BSA benign open biopsy rate was 1.6 per 1,000, which met the expected target of  $\leq 3.5$  per 1000 women screened (statistically lower, and  $\geq 10\%$  difference in relative magnitude). There was little variation among Lead Providers and all were below the expected target. For subsequent screens the BSA benign open biopsy rate was 0.6 per 1,000, which met the target of  $\leq 1.6$  per 1,000 women screened. There was little variation among services and all Lead Providers were on target. All Lead Providers achieved the target value over the period 2002-2007, with the exception of BSHC (Figure 2m2). However, in the latest reporting period, BSHC have now achieved the target value.

**Figure 2m2: Benign open biopsy rate for initial screens**





**Figure 2m2: Benign open biopsy rate for subsequent screens**



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

*Description:*

The number of women who have breast cancer detected within BSA, expressed as a rate per 1,000 women screened. This is influenced by the incidence of cancer in the population

*Target:*

Initial (Prevalent) round:  $\geq 6.9$  per 1000 women screened

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

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

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

	Initial			Subsequent		
	Number	Women screened	Rate per 1000 (95%CI)	Number	Women screened	Rate per 1000 (95%CI)
<i>45-49 years</i>						
BSWN	21	2,912	7.2 (4.5-11.0)	1	381	2.6 (0.1-14.6)
BSCM	10	2,114	4.7 (2.3-8.7)	2	148	13.5 (1.6-48.8)
BSAL	13	1,368	9.5 (5.1-16.3)	0	152	0.0 (0.0-24.3)
BSM	7	1,521	4.6 (1.9-9.5)	3	946	3.2 (0.7-9.3)
BSCtoC	3	1,910	1.6 (0.3-4.6)	1	529	1.9 (0.0-10.5)
BSC	4	1,297	3.1 (0.8-7.9)	4	477	8.4 (2.3-21.5)
BSS	14	4,155	3.4 (1.8-5.7)	0	153	0.0 (0.0-24.1)
BSHC	1	388	2.6 (0.1-14.4)	2	412	4.9 (0.6-17.5)
BSA Total	73	15,665	4.7 (3.7-5.9)	13	3198	4.1 (2.2-7.0)
<i>50-69 years</i>						
BSWN	25	2,352	10.6 (6.9-15.7)	52	8,304	6.3 (4.7-8.2)
BSCM	17	1,268	13.4 (7.8-21.5)	24	4,699	5.1 (3.3-7.6)
BSAL	5	991	5.0 (1.6-11.8)	16	3,595	4.5 (2.5-7.2)
BSM	6	971	6.2 (2.3-13.4)	33	8,397	3.9 (2.7-5.5)
BSCtoC	8	1,472	5.4 (2.3-10.7)	44	8,059	5.5 (4.0-7.3)
BSC	6	908	6.6 (2.4-14.4)	42	7,355	5.7 (4.1-7.7)
BSS	17	1,517	11.2 (6.5-17.9)	68	17,506	3.9 (3.0-4.9)
BSHC	3	329	9.1 (1.9-26.6)	19	4,568	4.2 (2.5-6.5)
BSA Total	87	9,808	8.9 (7.1-10.9)	298	62,483	4.8 (4.2-5.3)

Poisson 95% Confidence Intervals presented

**Comment:**

**DCIS and invasive cancer, last 6 months, women aged 50-69 years**

For initial screens, the BSA program detection was 8.9 per 1,000 women screened. There was variation across Lead Providers, however, all reached the target of  $\geq 3.45$  per 1,000 women screened. For subsequent screens, the BSA program detection rate was 4.8 per 1,000, and the confidence intervals showed few statistically significant differences.

*Description:*

The number of women who have breast cancer detected within BSA, expressed as a rate per 1,000 women screened. This is influenced by the incidence of cancer in the population

*Target:*

Initial (Prevalent) round:  $\geq 6.9$  per 1000 women screened

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

**3a.2. DCIS and invasive cancer, last 2 years**

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

	Initial			Subsequent		
	Number	Women screened	Rate per 1,000 (95%CI)	Number	Women screened	Rate per 1,000 (95%CI)
<i>45-49 years</i>						
BSWN	46	7,678		1	440	
BSCM	19	3,462		2	150	
BSAL	37	4,683		0	174	
BSM	44	9,090	4.8 (3.5-6.5)	3	1045	2.9 (0.6-8.4)
BSCtoC	32	7,366	4.3 (3.0-6.1)	1	620	1.6 (0.0-9.0)
BSC	28	6,531	4.3 (2.8-6.2)	5	567	8.8 (2.9-20.6)
BSS	77	21,623	3.6 (2.8-4.5)	0	182	0.0 (0.0-20.3)
BSHC	11	3,583	3.1 (1.5-5.5)	2	572	3.5 (0.4-12.6)
BSA Total	294	64,016	4.6 (4.1-5.1)	14	3750	3.7 (2.0-6.3)
<i>50-69 years</i>						
BSWN	56	5,992		132	23,470	
BSCM	43	4,207		72	14,815	
BSAL	61	5,735		122	24,098	
BSM	47	5,417	8.7 (6.4-11.5) ✓ ns	198	36,191	5.5 (4.7-6.3) ✓✓✓ *
BSCtoC	44	5,284	8.3 (6.1-11.2) ✓ ns	179	30,339	5.9 (5.1-6.8) ✓✓✓ *
BSC	34	4,432	7.7 (5.3-10.7) ✓ ns	139	24,638	5.6 (4.7-6.7) ✓✓✓ *
BSS	81	7,550	10.7 (8.5-13.3) ✓✓✓ *	278	54,603	5.1 (4.5-5.7) ✓✓✓ *
BSHC	17	2,261	7.5 (4.4-12.0) ✓ ns	73	17,438	4.2 (3.3-5.3) ✓ ns
BSA Total	383	40,878	9.4 (8.5-10.4) ✓✓✓ *	1,193	225,592	5.3 (5.0-5.6) ✓✓✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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  $\geq 10\%$  magnitude better than target value and statistically significant

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

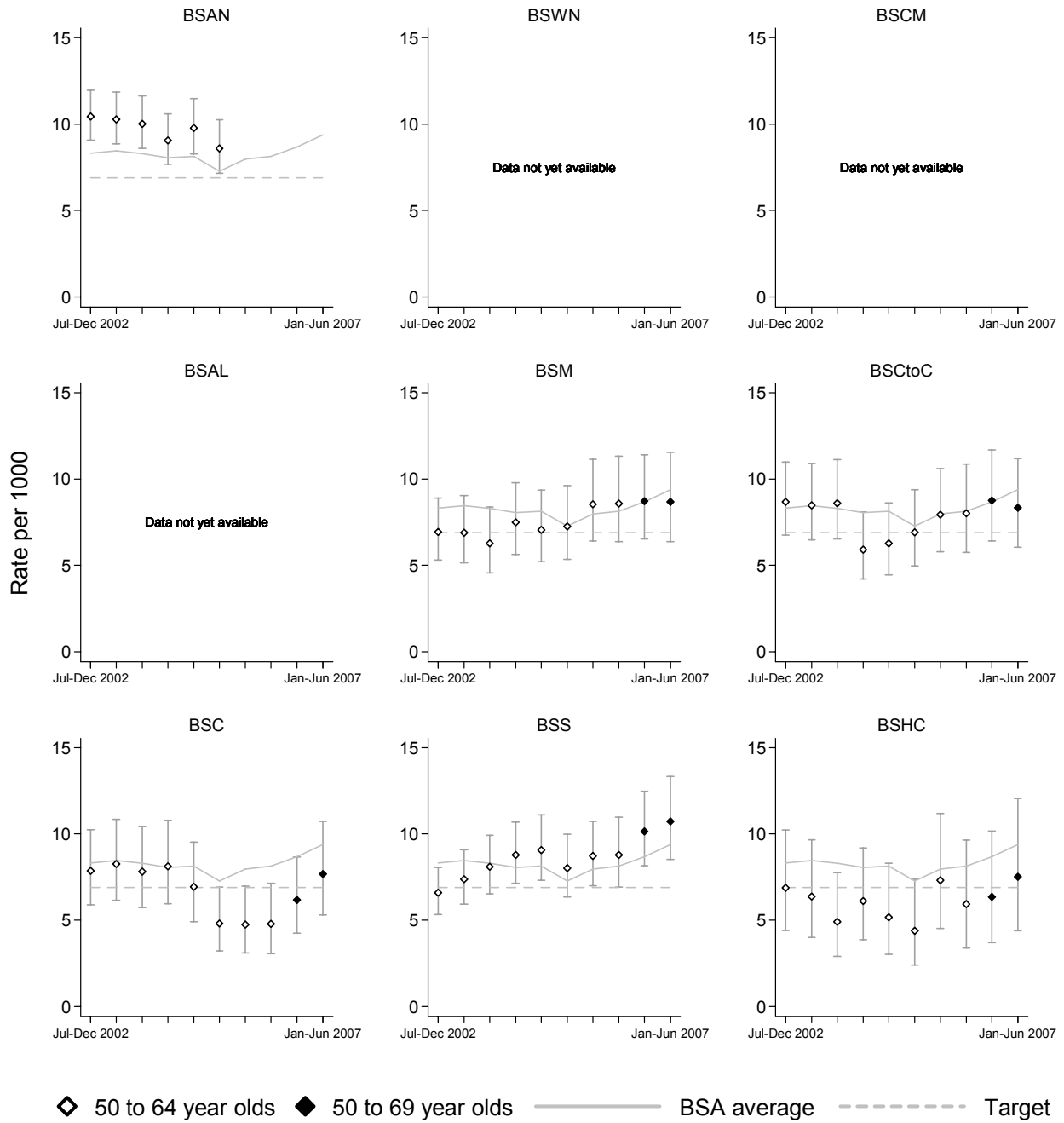
xxx Difference of  $\geq 10\%$  magnitude worse than target value and statistically significant

**Comment:**

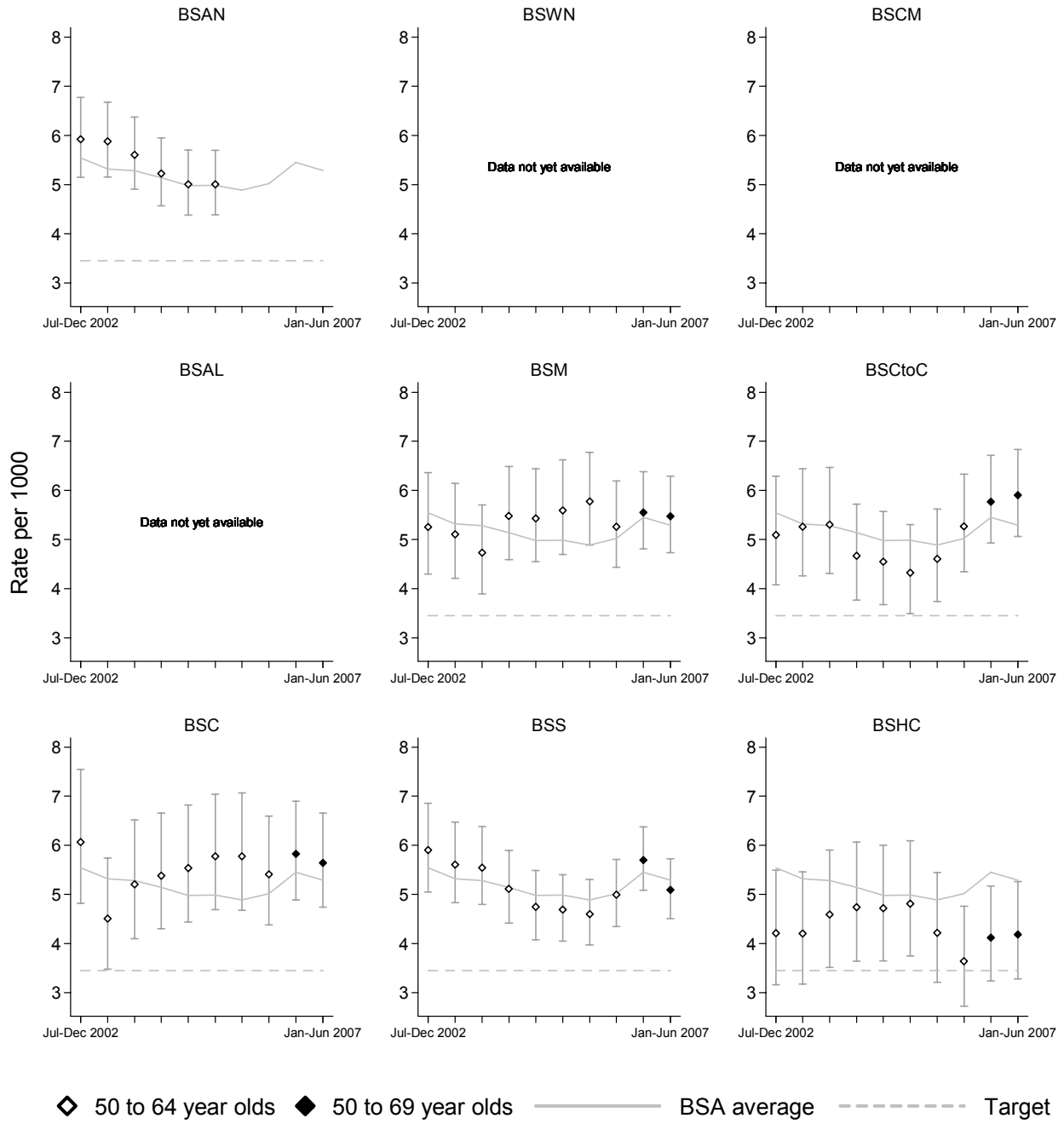
**DCIS and invasive cancer, last 2 years, women 50-69 years**

For initial screens the BSA program detection rate is 9.4 per 1,000 and 5.3 per 1,000 for subsequent screens. For initial screens, overall BSA cancer detection rates have increased slightly over the period since 2001 (Figure 3a). Subsequent screens overall BSA cancer detection rates have decreased slightly in the latest reporting period.

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



**Figure 3a: Detection rate of DCIS and invasive breast cancer, subsequent screens**



### 3a.2b. Invasive cancers corresponding to the current reporting period

**Table 3a.2b: Invasive cancers (last 6 months and last 2 years) for initial and subsequent screens corresponding to the current reporting period (i.e. no 9 month lag), women 50-69 years**

	Initial			Subsequent		
	Number	Women screened	Rate per 1,000 (95%CI)	Number	Women screened	Rate per 1,000 (95%CI)
<i>6 months</i>						
BSWN	17	2,352	7.2 (4.2-11.6)	38	8304	4.6 (3.2-6.3)
BSCM*						
BSAL*						
BSM*						
BSCtoC	6	1,472	4.1 (1.5-8.9)	33	8059	4.1 (2.8-5.8)
BSC	2	908	2.2 (0.3-8.0)	29	7355	3.9 (2.6-5.7)
BSS*						
BSHC	2	329	6.1 (0.7-22.0)	15	4568	3.3 (1.8-5.4)
BSA Total	27	5,061	5.3 (3.5-7.8)	115	28,286	4.1 (3.4-4.9)
<i>2 years</i>						
BSWN	43	5,992	7.2 (5.2-9.7)	94	23,470	4.0 (3.2-4.9)
BSCM	32	4,207	7.6 (5.2-10.7)	55	14,815	3.7 (2.8-4.8)
BSAL	42	5,735	7.3 (5.3-9.9)	72	24,098	3.0 (2.3-3.8)
BSM	33	5,417	6.1 (4.2-8.6)	152	36,191	4.2 (3.6-4.9)
BSCtoC	36	5,284	6.8 (4.8-9.4)	146	30,339	4.8 (4.1-5.7)
BSC	23	4,432	5.2 (3.3-7.8)	103	24,638	4.2 (3.4-5.1)
BSS*						
BSHC	15	2,261	6.6 (3.7-10.9)	59	17,438	3.4 (2.6-4.4)
BSA Total	224	33,328	6.7 (5.9-7.7)	681	170,989	4.0 (3.7-4.3)

Note: \* denotes provider's data is less than 90% complete and is therefore excluded.

#### Comment:

This is a new indicator.

#### Invasive cancers, last 6 months for initial and subsequent screens

The invasive cancer rate was 5.3 per 1000 for BSA for the current 6 month reporting period for initial screens and 4.1 per 1000 for subsequent screens.

#### Invasive cancers, last 2 years for initial and subsequent screens

The rate of invasive cancers for the previous 2 year period for initial screens was 6.7 per 1,000 and 4.0 per 1000 for subsequent screens.

### 3a.3. Treatment data completeness, last 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 (Oct 2004 - Sept 2006)**

	Women referred for Treatment	% Staging Complete	% Surgical Complete	% Endocrine Complete	% Radiotherapy Complete	% Chemotherapy Complete
BSWN	83	85.5	95.2	97.6	95.2	95.2
BSCM	64	98.4	100.0	100.0	98.4	100.0
BSAL	299	96.7	96.7	97.0	97.0	96.7
BSM	269	96.3	99.6	96.3	95.9	96.3
BSCtoC	204	100.0	100.0	100.0	100.0	100.0
BSC	160	100.0	100.0	98.8	98.1	99.4
BSS	404	98.8	98.3	98.8	99.0	98.5
BSHC	97	99.0	100.0	100.0	100.0	100.0
BSA Total	1,580	97.5	98.6	98.2	98.0	98.0

**Comment:**

**Treatment data completeness, last 2 years, women 50-69 years**

The treatment data completeness target of 90% was achieved by all Lead Providers for each treatment type except for BSWN which did not achieve the target for staging data.

**Table 3a.4: Treatment patient status completeness**

6 Month Period	1999	1999	2000	2000	2001	2001
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
<i>Data Collection Due by</i>	<i>Jun-04</i>	<i>Dec-04</i>	<i>Jun-05</i>	<i>Dec-05</i>	<i>Jun-06</i>	<i>Dec-06</i>
BSAL	81.0	75.2	69.2	70.4	8.9	0.9
BSM	100.0	100.0	94.3	100.0	100.0	92.1
BSCtoC	95.2	100.0	100.0	96.6	100.0	100.0
BSC	100.0	100.0	100.0	96.3	97.8	97.5
BSS	97.3	100.0	98.7	98.7	98.4	71.9
BSHC	90.5	100.0	96.6	100.0	100.0	94.4

**Comment:**

**Treatment patient status completeness, last 2 years, women 50-69 years**

A number of Lead Providers did not achieve the target value for treatment patient status completeness. BSAL and BSS were below the 90% target value for the most recent period.

IMG is not yet reporting data on status of women treated for breast cancer in BSA, however, it would be important to do so in future. This reporting cannot happen until patient status data is 90% complete for all LPs and for all reported years.

### 3b. Invasive cancers ≤ 10 mm, women

#### Description:

Proportion and rate of primary invasive breast cancer of diameter ≤ 10 mm.

#### Target:

Initial (Prevalent) round: ≥ 25%, which gives a rate of ≥ 17.3 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**

	Initial					Subsequent				
	Invasive cancers ≤10 mm	Total invasive cancers	% (95%CI)			Invasive cancers ≤10 mm	Total invasive cancers	% (95%CI)		
BSWN	5	14				21	47			
BSCM	6	17				13	32			
BSAL	12	51				61	146			
BSM	7	40	17.5 (7.3-32.8)	✓	ns	66	160	41.2 (33.5-49.3)	✓✓✓	*
BSCtoC	9	36	25.0 (12.1-42.2)	✓	ns	49	132	37.1 (28.9-46.0)	✓	ns
BSC	10	27	37.0 (19.4-57.6)	✓	ns	35	103	34.0 (24.9-44.0)	✓	ns
BSS	24	63	38.1 (26.1-51.2)	✓✓✓	*	84	241	34.9 (28.9-41.2)	✓	ns
BSHC	1	17	5.9 (0.1-28.7)	✓	ns	23	64	35.9 (24.3-48.9)	✓	ns
BSA Total	74	265	27.9 (22.6-33.7)	✓	ns	352	925	38.1 (34.9-41.3)	✓✓✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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**

	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)			
BSWN	5	2223			21	11654				
BSCM	6	2284			13	8151				
BSAL	12	9153			61	38311				
BSM	7	5848	12.0 (4.8-24.7)	✓	ns	66	33714	19.6 (15.1-24.9)	✓✓✓	*
BSCtoC	9	5178	17.4 (7.9-33.0)	✓	ns	49	27150	18.0 (13.4-23.9)	✓✓✓	*
BSC	10	5111	19.6 (9.4-36.0)	✓	ns	35	21994	15.9 (11.1-22.1)	✓✓✓	*
BSS	24	8798	27.3 (17.5-40.6)	✓✓✓	*	84	51463	16.3 (13.0-20.2)	✓✓✓	*
BSHC	1	2702	3.7 (0.1-20.6)	✓	ns	23	17768	12.9 (8.2-19.4)	✓	ns
BSA Total	74	41297	17.9 (14.1-22.5)	✓	ns	352	210205	16.7 (15.0-18.6)	✓✓✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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



**Comment:**

**3.b.1. Proportion invasive cancers  $\leq$  10 mm, women aged 50-69 years**

For initial screens, the BSA program proportion (27.9%) was not statistically different from the target of  $\geq$ 25%. There was variation across Lead Providers, although all Lead Providers were on target or exceeded the target value. For subsequent screens, the overall proportion was 38.1% statistically higher than the target of  $\geq$ 30%, and was  $\geq$ 10% different in relative magnitude. Upper confidence limits for all Lead Providers exceeded the target value for small cancers detected at subsequent screens.

**3.b.2. Invasive cancers  $\leq$  10 mm per 10,000 screens, women aged 50-69 years**

For initial screens, the BSA program rate per 10,000 screens of 17.9 achieved the target of  $\geq$ 17.3. Rates across Lead Providers ranged from 3.7 (BSHC) to 27.3 (BSS) per 10,000 with all 95% CIs containing the target value of  $\geq$ 17.3 per 10,000 screens. For subsequent screens the overall rate of 16.7 per 10,000 screens was statistically higher than the target value of 10.45 and was  $\geq$ 10% different in relative magnitude. All Lead Providers reached the target value based on point estimates and confidence intervals. There was little variation across Lead Providers.

### 3.c. Invasive cancer <15 mm

#### Description:

Proportion and rate of primary invasive breast cancer of diameter <15 mm

#### Target:

Initial (Prevalent) round: >50%, which gives a rate of >34.5 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 50-69 years

**Table 3c.1: Proportion of invasive cancers, <15 mm, women aged 50-69 years**

	Initial			Subsequent						
	Invasive cancers <15 mm	Total invasive cancers	% (95%CI)	Invasive cancers <15 mm	Total invasive cancers	% (95%CI)				
BSWN	7	14		26	47					
BSCM	7	17		17	32					
BSAL	24	51		87	146					
BSM	17	40	42.5 (27.0-59.1)	✓	ns	87	160	54.4 (46.3-62.3)	✓	ns
BSCtoC	13	36	36.1 (20.8-53.8)	✓	ns	73	132	55.3 (46.4-64.0)	✓	ns
BSC	14	27	51.9 (31.9-71.3)	✓	ns	55	103	53.4 (43.3-63.3)	✓	ns
BSS	35	63	55.6 (42.5-68.1)	✓	ns	136	241	56.4 (49.9-62.8)	✓	ns
BSHC	3	17	17.6 (3.8-43.4)	***	*	35	64	54.7 (41.7-67.2)	✓	ns
BSA Total	120	265	45.3 (39.2-51.5)	✓	ns	516	925	55.8 (52.5-59.0)	✓✓✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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**

	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)				
BSWN	7	2223		26	11654					
BSCM	7	2284		17	8151					
BSAL	24	9153		87	38311					
BSM	17	5848	29.1 (16.9-46.5)	✓	ns	87	33714	25.8 (20.7-31.8)	✓✓✓	*
BSCtoC	13	5178	25.1 (13.4-42.9)	✓	ns	73	27150	26.9 (21.1-33.8)	✓✓✓	*
BSC	14	5111	27.4 (15.0-46.0)	✓	ns	55	21994	25.0 (18.8-32.5)	✓✓✓	*
BSS	35	8798	39.8 (27.7-55.3)	✓	ns	136	51463	26.4 (22.2-31.3)	✓✓✓	*
BSHC	3	2702	11.1 (2.3-32.4)	***	*	35	17768	19.7 (13.7-27.4)	✓	ns
BSA Total	120	41297	29.1 (24.1-34.7)	✓	ns	516	210205	24.5 (22.5-26.8)	✓✓✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

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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

**Comment:**

**3.c.1. Proportion of invasive cancers < 15 mm, women aged 50-69 years**

For initial screens, the BSA percentage of 45.3% achieved the target with CIs containing the target value of >50% except for BSHC. The majority of Lead Providers (with the exception of BSHC) were not statistically different from the target or exceeded the target.

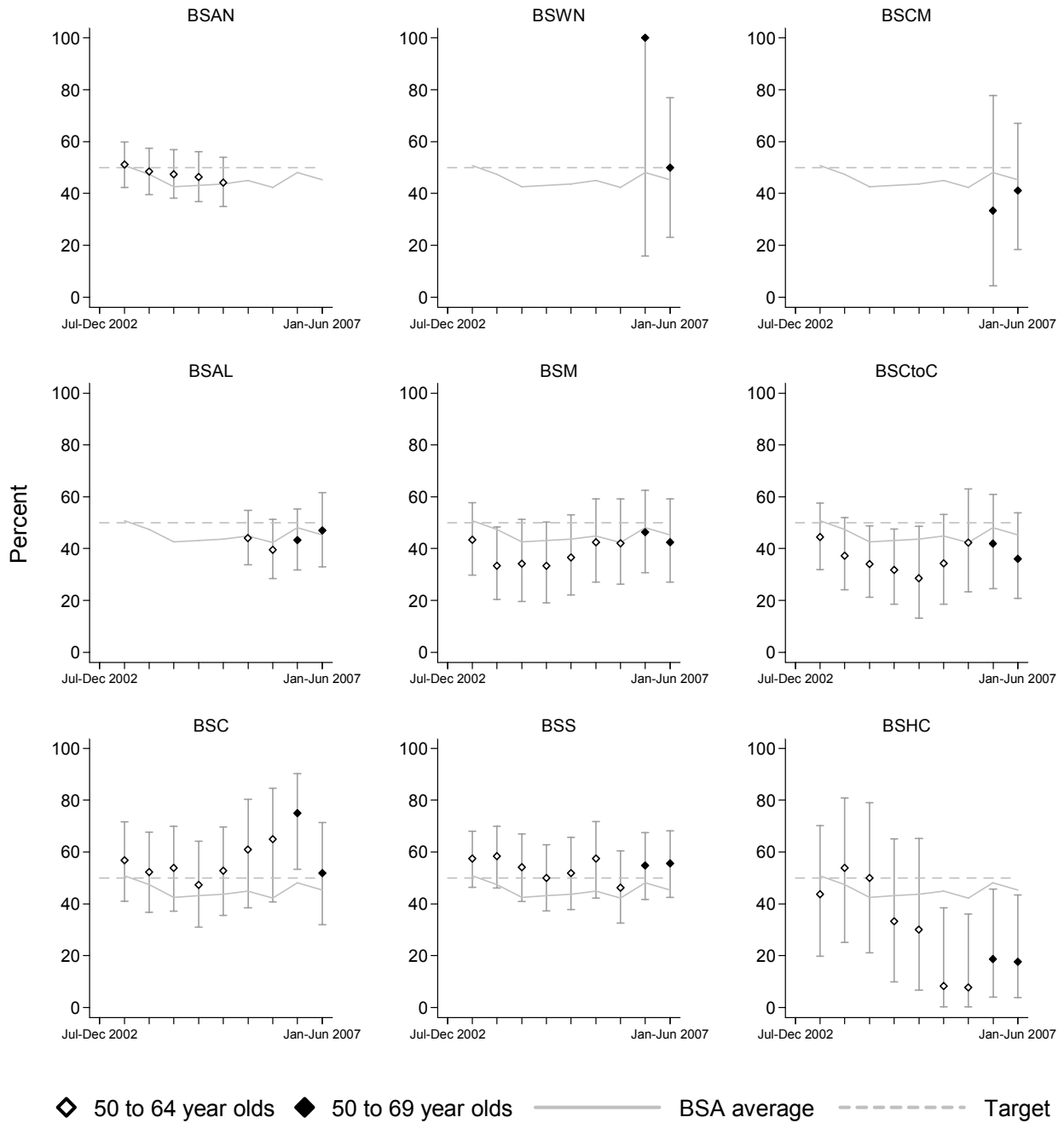
For subsequent screens, the BSA percentage of 55.8% achieved the target of >50%. All Lead Providers reached the target value, or were not significantly different from target.

**3.c.2. Invasive cancers < 15 mm per 10,000 screens, women aged 50-69 years**

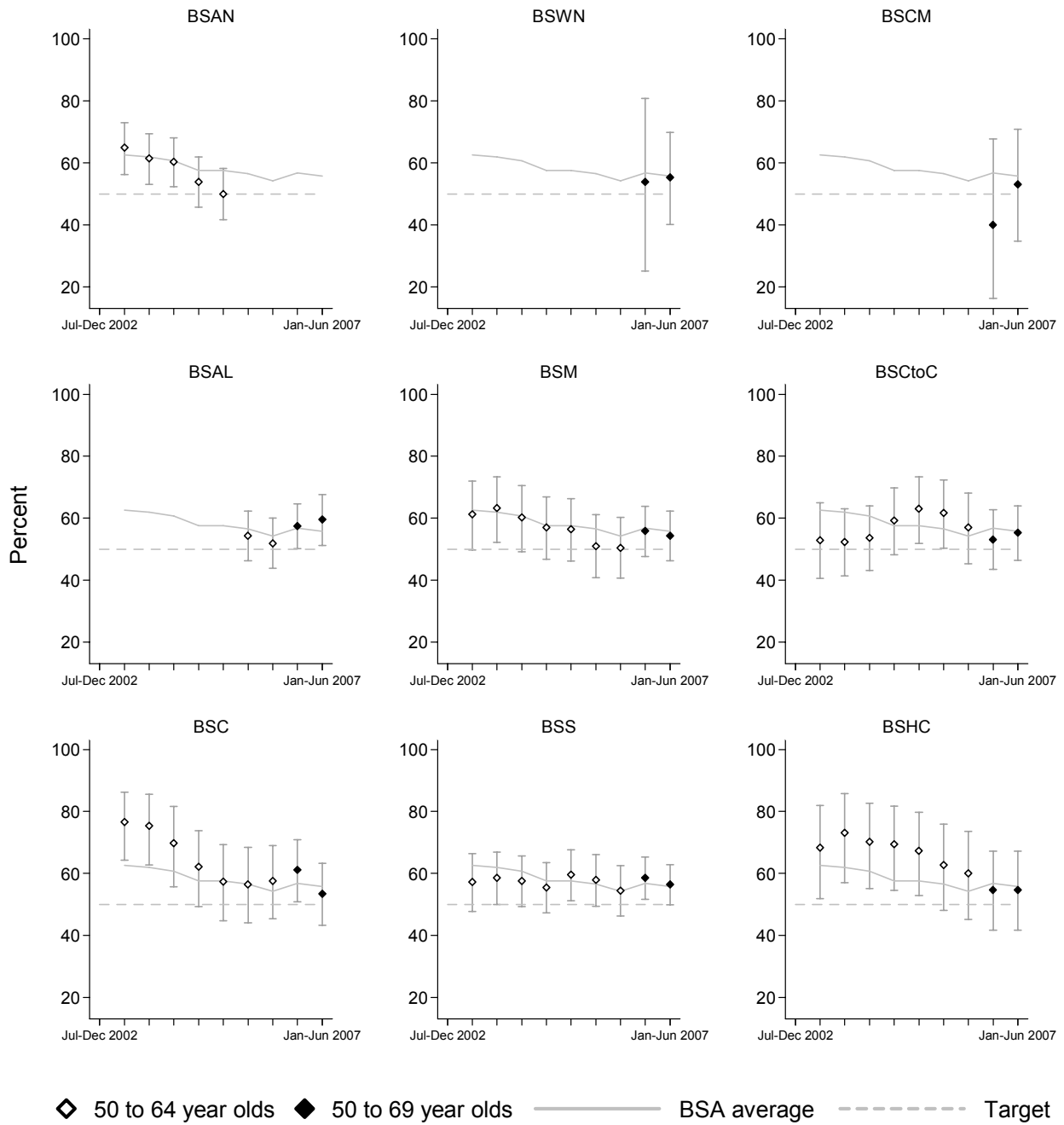
For initial screens, the BSA program rate per 10,000 screens of 29.1 was statistically different from the target value of >34.5. Rates across Lead Providers ranged from 11.1 to 39.8 per 10,000. The confidence interval for BSHC did not contain the target value.

For subsequent screens, the BSA program rate of 24.5 per 10,000 screens was statistically higher than the target value of >17.3, and was  $\geq 10\%$  different in relative magnitude. All Lead Providers reached the target value based on point estimates, or were not significantly different from the target. There was little variation across Lead Providers.

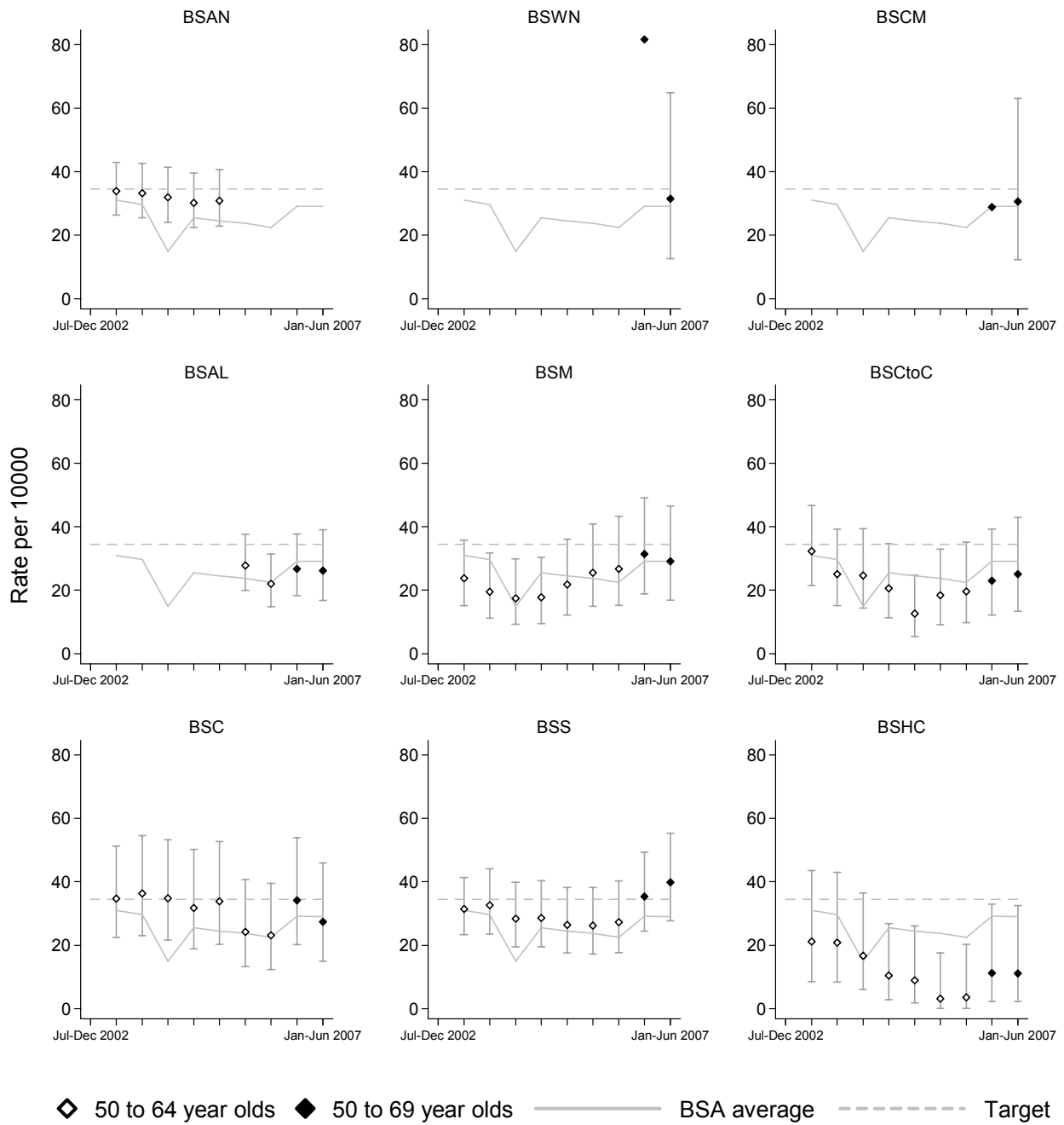
**Figure 3c.1: Proportion invasive cancers < 15 mm, initial screens, last 6 months**



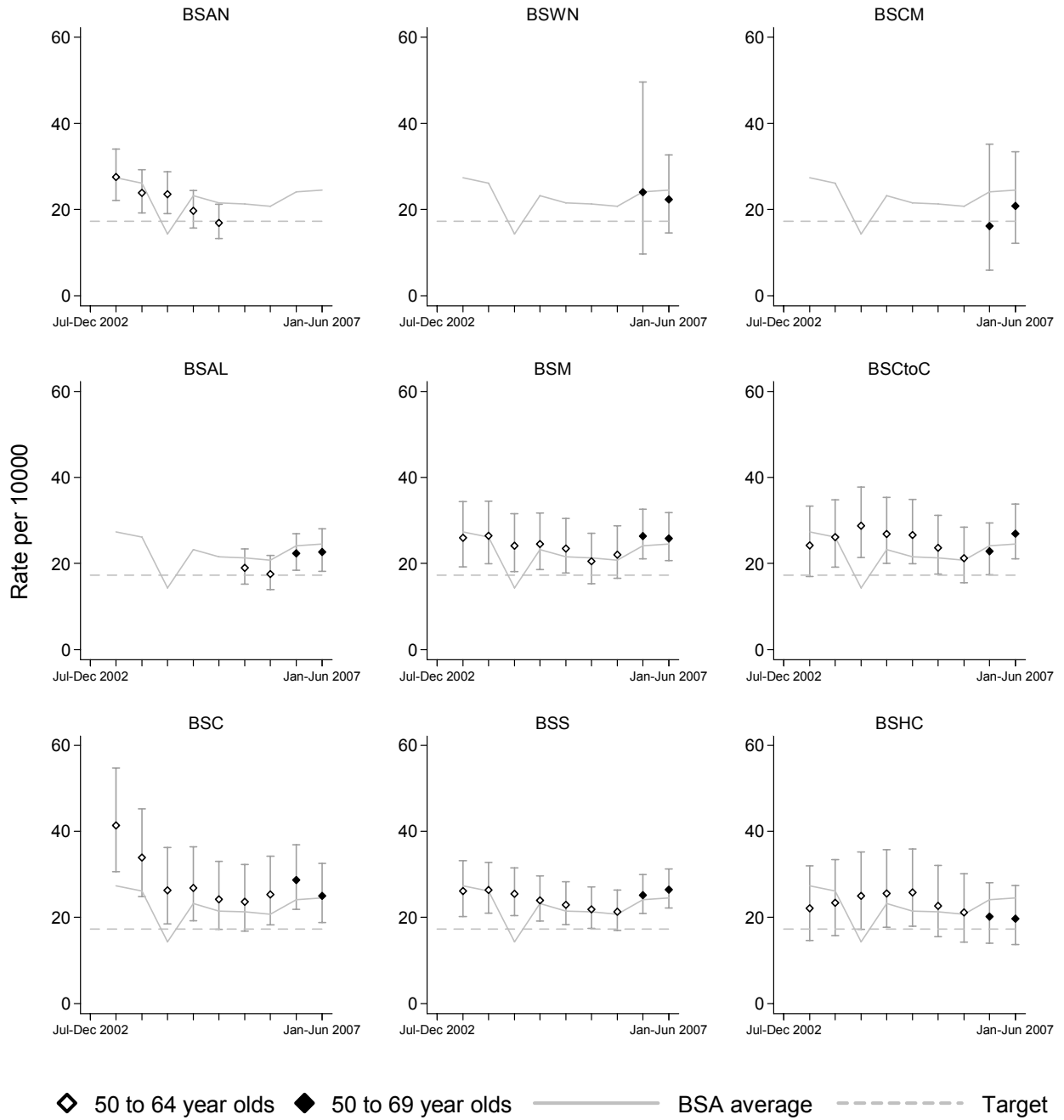
**Figure 3c.1: Proportion invasive cancers < 15 mm, subsequent screens, last 6 months**



**Figure 3c.2: Invasive cancers < 15 mm per 10,000 women screened, initial screens, last 6 months**



**Figure 3c.2: Invasive cancers < 15 mm per 10,000 women screened, subsequent screens, last 6 months**



**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, last 6 months, women aged 50-69 years**

**Table 3d: Proportion of node negative invasive cancers, last 6 months, women aged 50-69 years**

	Initial				Subsequent			
	Invasive cancers, node negative	Total invasive cancers	% (95%CI)		Invasive cancers, node negative	Total invasive cancers	% (95%CI)	
BSWN	11	14			40	47		
BSCM	13	17			29	32		
BSAL	38	51			112	146		
BSM	26	40	65.0 (48.3-79.4)	✓ ns	133	160	83.1 (76.4-88.6)	✓✓✓ *
BSCtoC	19	36	52.8 (35.5-69.6)	xxx *	99	132	75.0 (66.7-82.1)	✓ ns
BSC	19	27	70.4 (49.8-86.2)	✓ ns	78	103	75.7 (66.3-83.6)	✓ ns
BSS	54	63	85.7 (74.6-93.3)	✓✓✓ *	175	241	72.6 (66.5-78.1)	✓ ns
BSHC	9	17	52.9 (27.8-77.0)	✓ ns	50	64	78.1 (66.0-87.5)	✓ ns
BSA Total	189	265	71.3 (65.5-76.7)	✓ ns	716	925	77.4 (74.6-80.1)	✓ ns

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates  
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

**Comment:**

**3.d. Proportion of node negative invasive cancers, last 6 months, women aged 50-69 years**

The BSA program proportion for initial screens (71.3%) achieved the target value of >70%. There was variation across the Lead Providers with percentages ranging from 52.8% (BSCtoC) to 85.7% (BSS). The BSA percentage for subsequent screens (77.4%) was not statistically different from the target and there was little variation across Lead Providers.



### 3.e. DCIS

*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 program are DCIS.

### 3.e. DCIS, women aged 50-69 years, last 6 months

**Table 3e: Women with DCIS as a percentage of all screen detected cancers**

	DCIS	Total cancers	% (95%CI)
BSWN	10	71	
BSCM	14	63	
BSAL	89	286	
BSM	58	258	22.5 (17.5-28.1)
BSCtoC	36	204	17.6 (12.7-23.6)
BSC	30	160	18.8 (13.0-25.7)
BSS	94	398	23.6 (19.5-28.1)
BSHC	15	96	15.6 (9.0-24.5)
BSA Total	346	1,536	22.5 (20.5-24.7)

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates  
Exact Binomial 95% Confidence Intervals presented

**Comment:**

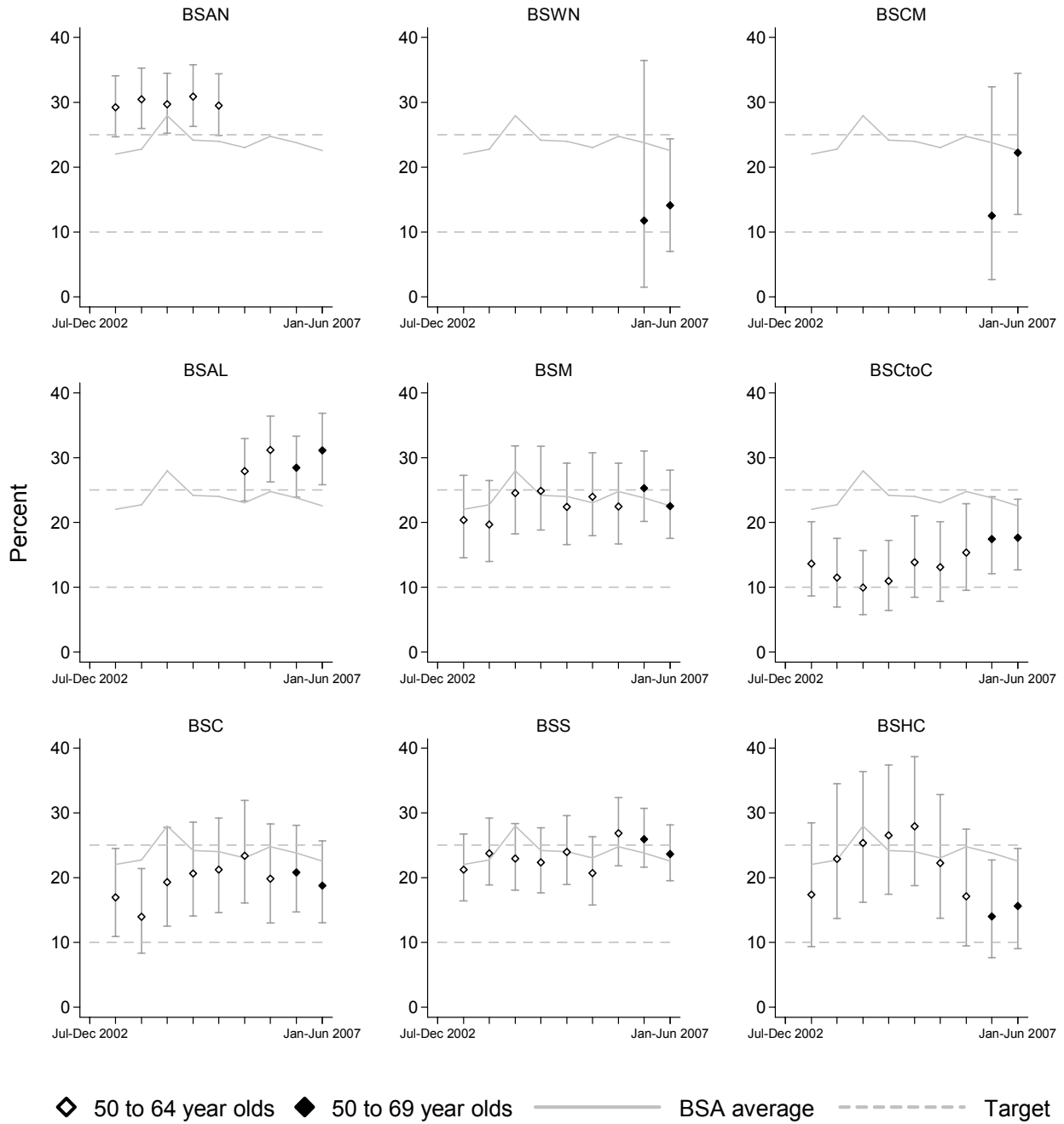
### 3.e. DCIS, women aged 50-69 years, last 6 months

The BSA percentage for this age group was 22.5%, which was within the target range of 10-25%.

Percentages ranged from 15.6% to 23.6%, with no Lead Providers statistically above the target range.

Trends from over the period 2002-2007 show a slight overall decrease for BSA in the proportion of DCIS (Figure 3e).

Figure 3e: Women with DCIS as a percentage of all screen detected cancers, last 6 months



## 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, last 2 years (Oct, 04 - Sep, 06)**

	Number having surgical axillary procedure for invasive cancers >1 mm	Number having an operation for invasive cancers >1 mm	% (95%CI)			
BSWN	39	40				
BSCM	32	33				
BSAL	113	126				
BSM	143	146	97.9 (94.1-99.6)	✓		ns
BSCtoC	118	118	100.0 (96.9-100.0)	✓✓		*
BSC	88	94	93.6 (86.6-97.6)	✓		ns
BSS	212	217	97.7 (94.7-99.2)	✓		ns
BSHC	62	62	100.0 (94.2-100.0)	✓		ns
BSA Total	807	836	96.5 (95.1-97.7)	✓		*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

**Comment:**

**4.a. Women with invasive cancer >1 mm having a surgical axillary procedure, women 50-69 years**

The BSA percentage (96.5%) of women with invasive cancer having a surgical axillary procedure was slightly above the target of 95%. There was little variation across Lead Provider regions, with percentages ranging from 89.7% to 100%, and all Lead Providers achieving on target estimates.

\* Women who have a sentinel node biopsy are considered to have had a surgical axillary procedure.

#### 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: Proportion of women with invasive cancer having a single excision breast treatment procedure, last 2 years (Oct, 04 - Sep, 06)***

	Number having a single excisional procedure for invasive cancer	Number of invasive cancers having surgical breast procedure	% (95%CI)
BSWN	52	61	
BSCM	46	49	
BSAL	168	194	
BSM	175	199	87.9 (82.6-92.1)
BSCtoC	138	166	83.1 (76.6-88.5)
BSC	106	129	82.2 (74.5-88.3)
BSS	262	303	86.5 (82.1-90.1)
BSHC	73	81	90.1 (81.5-95.6)
BSA Total	1020	1,182	86.3 (84.2-88.2)

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates  
Exact Binomial 95% Confidence Intervals presented

Comment:

#### **4.b. Women with invasive cancer having a single excision breast treatment procedure, women aged 50-69 last 2 years**

The BSA proportion of invasive cancers having a single excision was 86.3%. There was little variation across Lead Provider regions.

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

*Description:*

The proportion of women who have surgery for DCIS who do not have axillary dissection

*Target:*

> 95 %

**Table 4c: Proportion of DCIS women not having axillary dissection, last 2 years (Oct, 04 - Sep, 06)**

	Number having surgery for DCIS who do not have an axillary dissection	Number having surgery for DCIS	% (95%CI)			
BSWN	9	10				
BSCM	12	13				
BSAL	82	89				
BSM	49	56	87.5 (75.9-94.8)	xx	*	
BSCtoC	31	36	86.1 (70.5-95.3)	✓	ns	
BSC	28	30	93.3 (77.9-99.2)	✓	ns	
BSS	82	91	90.1 (82.1-95.4)	✓	ns	
BSHC	14	15	93.3 (68.1-99.8)	✓	ns	
BSA Total	307	340	90.3 (86.6-93.2)	✓	*	

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

Comment:

**4.c. Women with DCIS with no axillary dissection, 50-69 years**

Women who have had axillary sampling, sentinel biopsy, and mastectomy with immediate reconstruction are excluded from the calculations for this indicator.

The BSA proportion of women with DCIS not having axillary dissection was 90.3% which was <5% different in relative magnitude. Percentages ranged from 86.1% (BSCtoC) to 93.3% (BSC and BSHC).

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

*Description:*

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

*Target:*

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

**Table 4e: Proportion of women with DCIS having breast conserving surgery (BCS), last 2 years (Oct, 04 - Sep, 06)**

	DCIS $\leq 20$ mm having BCS	Total DCIS $\leq 20$ mm having operation	% (95%CI)		
BSWN	5	6			
BSCM	6	6			
BSAL	38	43			
BSM	27	33	81.8 (64.5-93.0)	✓✓✓	*
BSCtoC	15	22	68.2 (45.1-86.1)	✓	ns
BSC	14	16	87.5 (61.7-98.4)	✓✓✓	*
BSS	49	54	90.7 (79.7-96.9)	✓✓✓	*
BSHC	6	10	60.0 (26.2-87.8)	✓	ns
BSA Total	160	190	84.2 (78.2-89.1)	✓✓✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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  $\geq 10\%$  magnitude better than target value and statistically significant

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

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

**Comment:**

**4.e. Women with DCIS having breast conserving surgery, women aged 50-69 years**

Overall for BSA, the majority (84.2%) of DCIS cases had breast conserving surgery. All Lead Provider regions achieved the >50% target.

**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 with invasive cancer having breast conserving surgery (BCS), last 2 years (Oct, 04 - Sep, 06)**

	Invasive cancers ≤20 mm having BCS	Total invasive cancers ≤20 mm having operation	% (95%CI)			
BSWN	11	14				
BSCM	17	17				
BSAL	23	32				
BSM	43	51	84.3 (71.4-93.0)	✓✓✓	*	
BSCtoC	27	41	65.9 (49.4-79.9)	✓	ns	
BSC	23	30	76.7 (57.7-90.1)	✓✓✓	*	
BSS	43	55	78.2 (65.0-88.2)	✓✓✓	*	
BSHC	20	27	74.1 (53.7-88.9)	✓✓✓	*	
BSA Total	207	267	77.5 (72.0-82.4)	✓✓✓	*	

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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

**Comment:**

**4.f. Women with invasive cancer ≤ 20 mm having breast conserving surgery, women aged 50-69 years**

The majority (77.5%) of women with invasive cancer without a DCIS component of pathological diameter ≤ 20mm had breast conserving surgery, and all Lead Providers were on target. Point estimates for all Lead Provider regions were above the target (>50%).

#### 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 with invasive cancer having breast conserving surgery (BCS) who had radiotherapy, last 2 years (Oct, 04 - Sep, 06)**

	Invasive cancers having BCS who had radiotherapy	Invasive cancers having BCS	% (95%CI)			
BSWN	39	41				
BSCM	31	35				
BSAL	125	132				
BSM	133	140	95.0 (90.0-98.0)	✓	ns	
BSCtoC	90	91	98.9 (94.0-100.0)	✓	ns	
BSC	69	72	95.8 (88.3-99.1)	✓	ns	
BSS	165	169	97.6 (94.1-99.4)	✓	ns	
BSHC	50	55	90.9 (80.0-97.0)	✓	ns	
BSA Total	702	735	95.5 (93.8-96.9)	✓	ns	

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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 with DCIS having breast conserving surgery (BCS) who had radiotherapy, last 2 years (Oct, 04 - Sep, 06)***

	DCIS having BCS who radiotherapy	DCIS having BCS	% (95%CI)
BSWN	6	8	
BSCM	7	9	
BSAL	37	70	
BSM	29	39	74.4 (57.9-87.0)
BSCtoC	4	19	21.1 (6.1-45.6)
BSC	7	19	36.8 (16.3-61.6)
BSS	38	62	61.3 (48.1-73.4)
BSHC	3	8	37.5 (8.5-75.5)
BSA Total	131	234	56.0 (49.4-62.4)

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates  
Exact binomial 95% Confidence Intervals presented

**Comment:**

**Proportion of women with DCIS having radiotherapy**

Overall 56.0% of women diagnosed with DCIS who had breast conserving surgery, go on to have radiotherapy. There was variation in this indicator by Lead Provider region, ranging from 21.1% to 74.4%, indicative of small underlying numbers.

#### 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 with invasive cancer who had chemotherapy by disease character groups, last 2 years (Oct, 04 - Sep, 06)**

	Invasive Cancers, having chemotherapy	Invasive cancers	% (95%CI)
<i>Group 1: Node positive, ER and PR negative</i>			
BSWN	0	0	
BSCM	2	2	
BSAL	9	10	
BSM	8	10	80.0 (44.4-97.5)
BSCtoC	2	3	66.7 (9.4-99.2)
BSC	6	6	100.0 (54.1-100.0)
BSS	8	12	66.7 (34.9-90.1)
BSHC	3	3	100.0 (29.2-100.0)
BSA Total	38	46	82.6 (68.6-92.2)
<i>Group 2: Node negative, high risk, and ER and PR negative</i>			
BSWN	5	8	
BSCM	0	4	
BSAL	5	13	
BSM	5	9	55.6 (21.2-86.3)
BSCtoC	4	10	40.0 (12.2-73.8)
BSC	8	16	50.0 (24.7-75.3)
BSS	11	32	34.4 (18.6-53.2)
BSHC	6	13	46.2 (19.2-74.9)
BSA Total	44	105	41.9 (32.3-51.9)
<i>Group 3: Node positive, either ER or PR positive</i>			
BSWN	4	10	
BSCM	3	5	
BSAL	15	37	
BSM	18	30	60.0 (40.6-77.3)
BSCtoC	17	47	36.2 (22.7-51.5)
BSC	16	27	59.3 (38.8-77.6)
BSS	37	63	58.7 (45.6-71.0)
BSHC	10	19	52.6 (28.9-75.6)
BSA Total	120	238	50.4 (43.9-56.9)
<i>Group 4: Node negative, high risk, either ER or PR positive</i>			
BSWN	0	17	
BSCM	1	17	
BSAL	3	84	
BSM	8	83	9.6 (4.3-18.1)
BSCtoC	2	60	3.3 (0.4-11.5)
BSC	2	37	5.4 (0.7-18.2)
BSS	6	126	4.8 (1.8-10.1)
BSHC	3	24	12.5 (2.7-32.4)
BSA Total	25	448	5.6 (3.6-8.1)

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

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 diagnosed with invasive cancer who had endocrine therapy by disease character groups, last 2 years (Oct, 04 - Sep, 06)**

	Invasive Cancers, having endocrine therapy	Invasive cancers	% (95%CI)
<i>Node positive, ER/PR positive</i>			
BSWN	9	10	
BSCM	5	5	
BSAL	31	37	
BSM	27	30	90.0 (73.5-97.9)
BSCtoC	25	47	53.2 (38.1-67.9)
BSC	19	27	70.4 (49.8-86.2)
BSS	57	63	90.5 (80.4-96.4)
BSHC	13	19	68.4 (43.4-87.4)
<b>BSA Total</b>	<b>186</b>	<b>238</b>	<b>78.2 (72.4-83.2)</b>
<i>Node negative, high risk, and ER/PR positive</i>			
BSWN	12	17	
BSCM	10	17	
BSAL	67	84	
BSM	76	83	91.6 (83.4-96.5)
BSCtoC	34	60	56.7 (43.2-69.4)
BSC	23	37	62.2 (44.8-77.5)
BSS	80	126	63.5 (54.4-71.9)
BSHC	9	24	37.5 (18.8-59.4)
<b>BSA Total</b>	<b>311</b>	<b>448</b>	<b>69.4 (64.9-73.7)</b>
<i>Node negative, low risk and ER/PR positive</i>			
BSWN	18	40	
BSCM	10	35	
BSAL	78	132	
BSM	126	142	88.7 (82.3-93.4)
BSCtoC	52	101	51.5 (41.3-61.6)
BSC	41	76	53.9 (42.1-65.5)
BSS	98	191	51.3 (44.0-58.6)
BSHC	15	45	33.3 (20.0-49.0)
<b>BSA Total</b>	<b>438</b>	<b>762</b>	<b>57.5 (53.9-61.0)</b>

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates

Exact binomial 95% Confidence Intervals presented

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

## 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.

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

	Last 6 months			Last 2 years						
	Women notified within 10 working days	Women screened	% (95%CI)	Women notified within 10 working days	Women screened	% (95%CI)				
<i>45-49 years</i>										
BSWN	2,877	3,293	87.4 (86.2-88.5)	7,027	8,118					
BSCM	2,174	2,262	96.1 (95.2-96.9)	3,347	3,612					
BSAL	1,445	1,520	95.1 (93.9-96.1)	3,645	4,859					
BSM	2,395	2,467	97.1 (96.3-97.7)	9,720	10,135	95.9 (95.5-96.3)				
BSCtoC	2,428	2,439	99.5 (99.2-99.8)	7,821	7,986	97.9 (97.6-98.2)				
BSC	1,680	1,774	94.7 (93.6-95.7)	5,313	7,098	74.9 (73.8-75.9)				
BSS	4,281	4,308	99.4 (99.1-99.6)	21,489	21,805	98.6 (98.4-98.7)				
BSHC	742	800	92.8 (90.7-94.4)	3,497	4,155	84.2 (83.0-85.3)				
BSA Total	18,022	18,863	95.5 (95.2-95.8)	61,859	67,768	91.3 (91.1-91.5)				
<i>50-69 years</i>										
BSWN	9,810	10,656	92.1 (91.5-92.6)	✓	*	26,159	29,462			
BSCM	5,762	5,967	96.6 (96.1-97.0)	✓✓	*	17,863	19,022			
BSAL	4,438	4,587	96.8 (96.2-97.2)	✓✓	*	18,610	29,848			
BSM	9,186	9,368	98.1 (97.8-98.3)	✓✓	*	40,562	41,608	97.5 (97.3-97.6)	✓✓	*
BSCtoC	9,503	9,531	99.7 (99.6-99.8)	✓✓✓	*	35,081	35,623	98.5 (98.3-98.6)	✓✓	*
BSC	7,940	8,263	96.1 (95.7-96.5)	✓✓	*	24,149	29,070	83.1 (82.6-83.5)	xx	*
BSS	18,964	19,023	99.7 (99.6-99.8)	✓✓✓	*	61,507	62,153	99.0 (98.9-99.0)	✓✓	*
BSHC	4,623	4,897	94.4 (93.7-95.0)	✓	*	17,941	19,699	91.1 (90.7-91.5)	✓	*
BSA Total	70,226	72,292	97.1 (97.0-97.3)	✓✓	*	241,872	266,485	90.8 (90.7-90.9)	✓	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

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

**Comment:**

**Time taken for provision of screening results, women aged 50-69 years**

The BSA program proportion of women notified of screening results within 10 working days for the last 6 months was 97.1% and for last 2 years was 90.8%. For the biennial period, all Lead Providers were meeting or exceeding the target of 90% of women being notified of screening results within 10 working days, with the exception of BSC. However, 6 month results show recent improvement in BSC's results.

Figure 5a: Percentage of women notified of screening results within 10 working days, 2001-2007, last 6 months

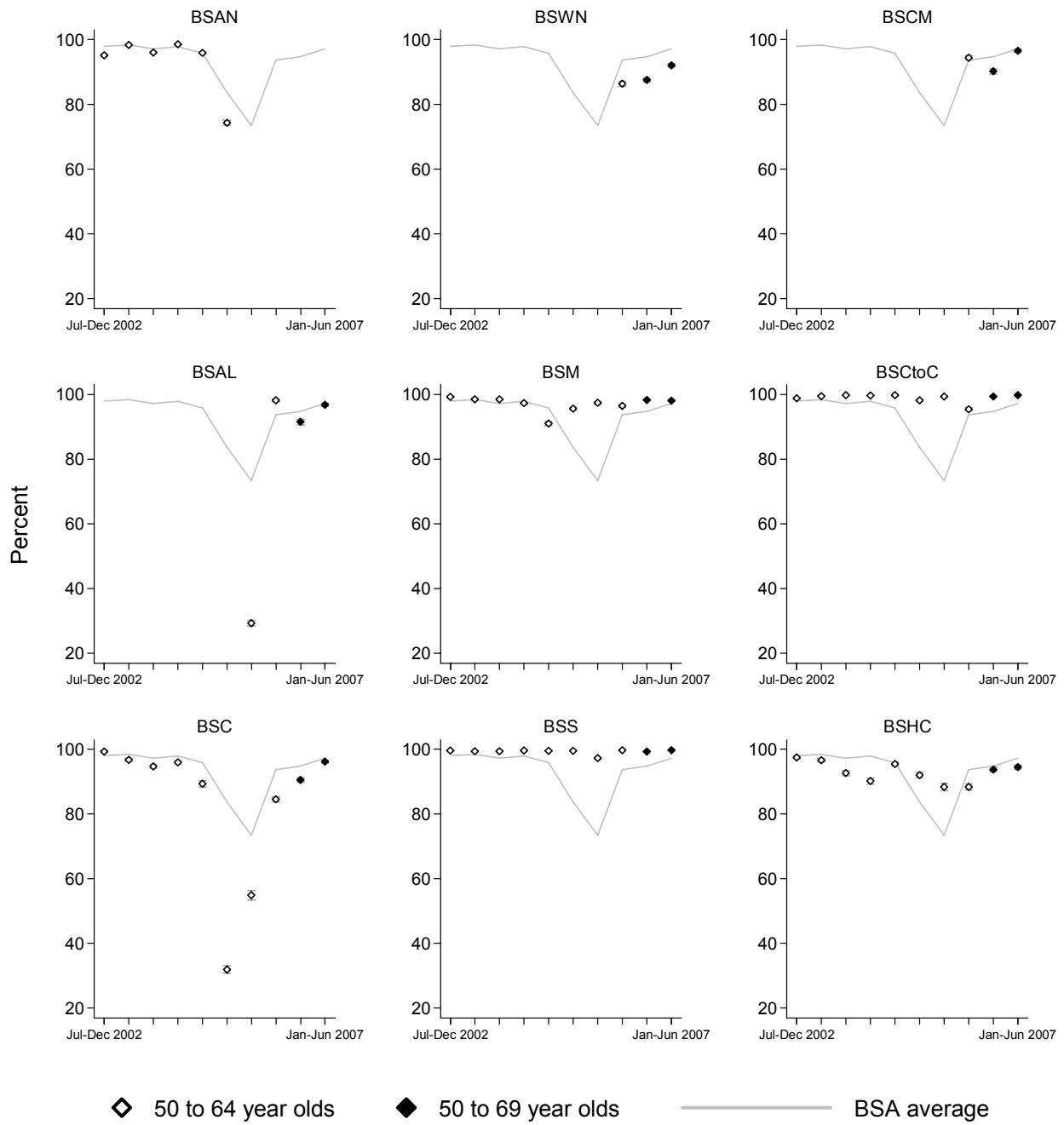
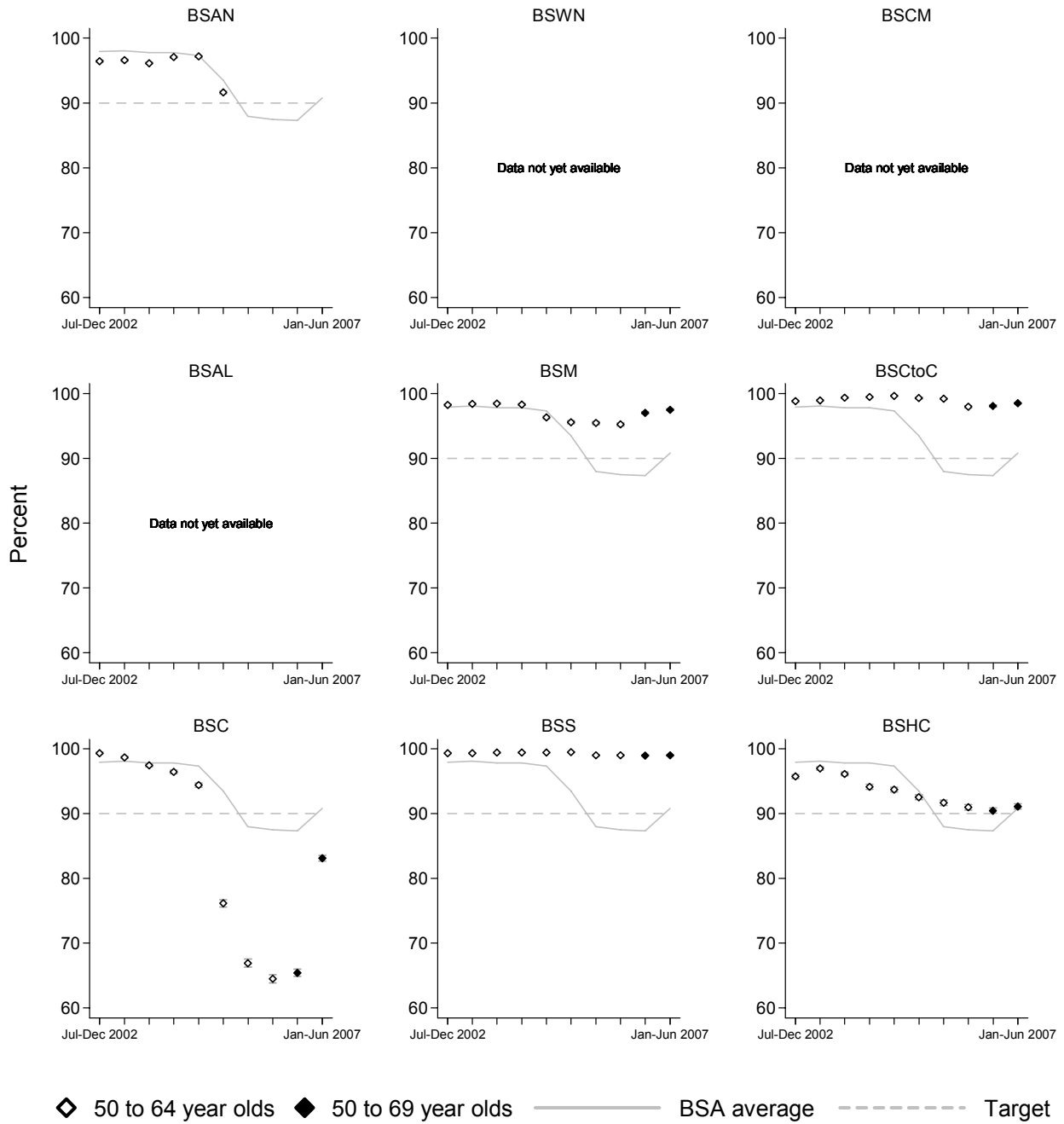


Figure 5a: Percentage of women notified of screening results within 10 working days, 2001-2007, last 2 years



## 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**

	Last 6 months			Last 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)
<b>45-49 years</b>						
BSWN	211	299	70.6 (65.0-75.7)	449	681	
BSCM	174	193	90.2 (85.1-94.0)	247	335	
BSAL	86	104	82.7 (74.0-89.4)	242	368	
BSM	144	164	87.8 (81.8-92.4)	808	902	89.6 (87.4-91.5)
BSCtoC	132	142	93.0 (87.4-96.6)	461	558	82.6 (79.2-85.7)
BSC	134	142	94.4 (89.2-97.5)	402	571	70.4 (66.5-74.1)
BSS	241	268	89.9 (85.7-93.3)	1,289	1,362	94.6 (93.3-95.8)
BSHC	34	62	54.8 (41.7-67.5)	155	342	45.3 (40.0-50.8)
BSA Total	1,156	1,374	84.1 (82.1-86.0)	4,053	5,119	79.2 (78.0-80.3)
<b>50-69 years</b>						
BSWN	339	518	65.4 (61.2-69.5) *** *	778	1228	
BSCM	188	219	85.8 (80.5-90.2) ✓ ns	734	986	
BSAL	166	186	89.2 (83.9-93.3) ✓ ns	777	1,192	
BSM	312	376	83.0 (78.8-86.6) ** *	1,610	1,826	88.2 (86.6-89.6) ✓ *
BSCtoC	249	262	95.0 (91.7-97.3) ✓✓ *	925	1,132	81.7 (79.3-83.9) ** *
BSC	293	327	89.6 (85.8-92.7) ✓ ns	899	1,229	73.1 (70.6-75.6) *** *
BSS	396	482	82.2 (78.4-85.5) ** *	1,722	1,852	93.0 (91.7-94.1) ✓ *
BSHC	117	191	61.3 (54.0-68.2) *** *	354	677	52.3 (48.5-56.1) *** *
BSA Total	2,060	2,561	80.4 (78.8-82.0) *** *	7,799	10,122	77.0 (76.2-77.9) *** *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

Exact Binomial 95% Confidence Intervals presented

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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

### Comment:

#### Time taken from screening visit to first offer of an assessment, women aged 50-69 years

For the last 6 months and last 2 years the BSA program percentage of women offered a first assessment appointment within 15 working days was 80.4% and 77% respectively. These percentages were statistically below the target of 90% and ≥10% different in relative magnitude. The majority of Lead Providers were below target except for BSS (93.0%). The proportion of women offered a first assessment appointment within 15 working days (both 6 month and biennial estimates) had decreased in recent reporting periods relative to earlier periods of the BSA Program, but have however slightly increased in the latest reporting period (Figure 5b).

Figure 5b: Percentage of women offered first assessment appointment within 15 working days, 2001-2007, last 6 months

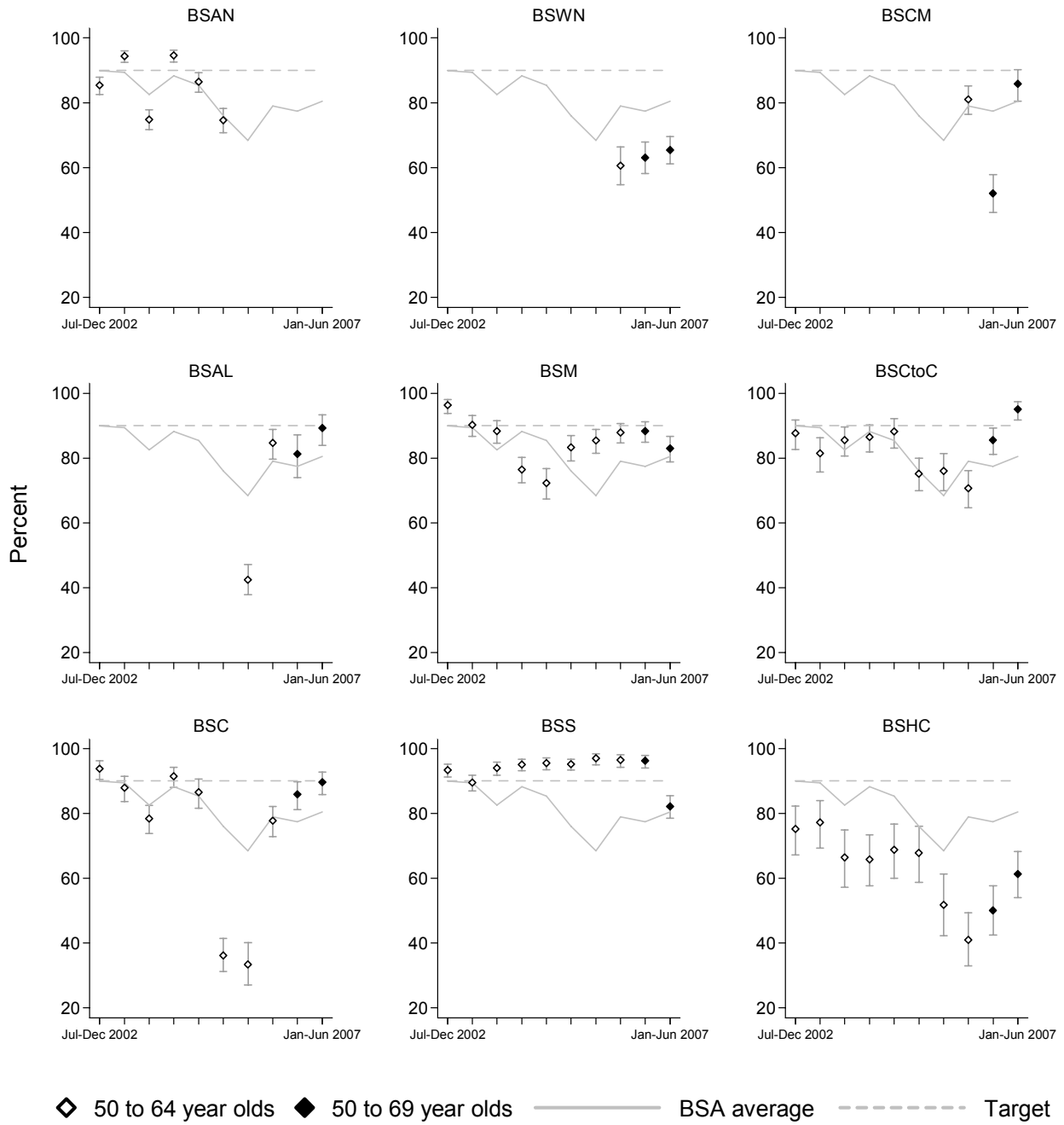
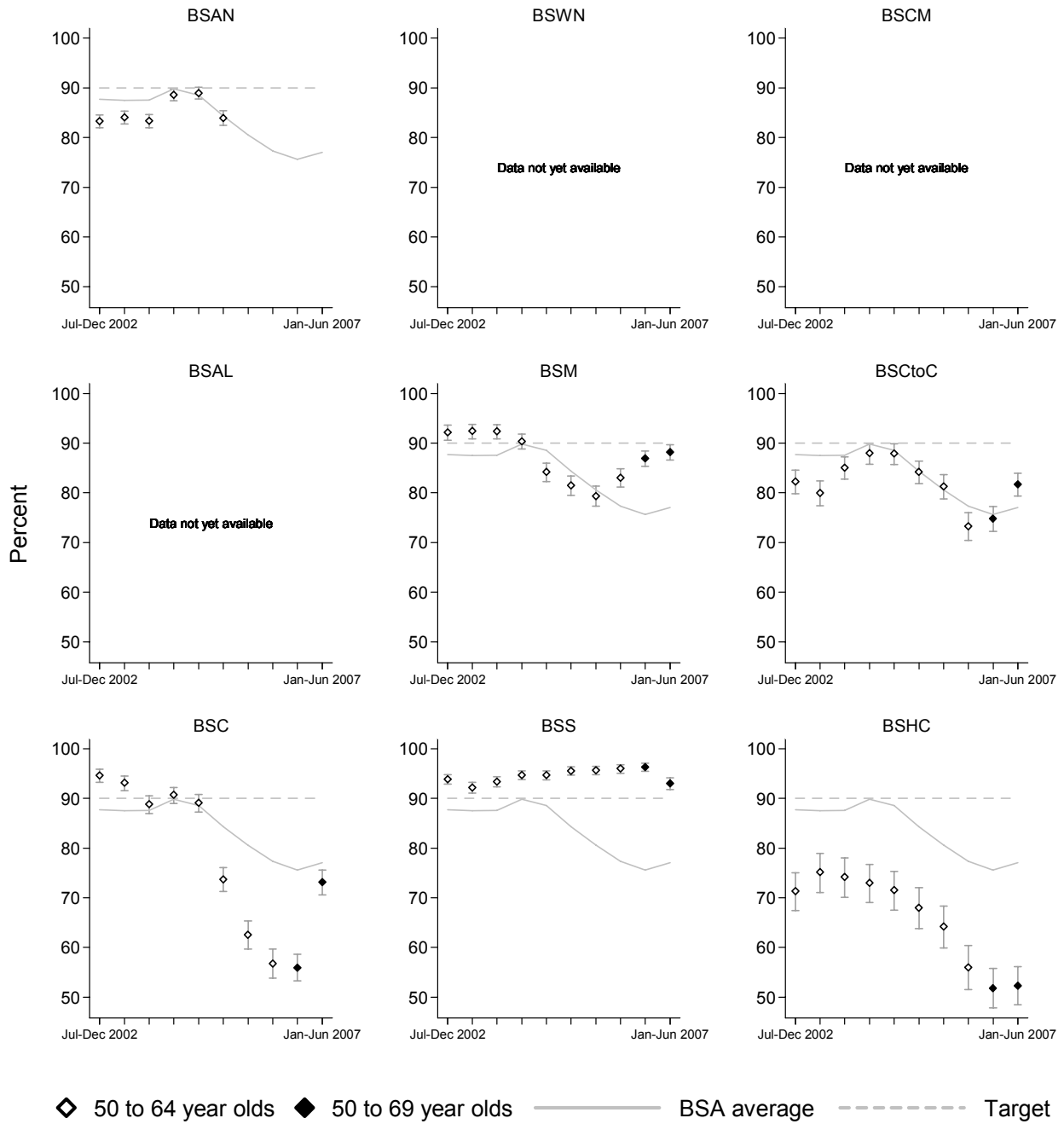




Figure 5b: Percentage of women offered first assessment appointment within 15 working days, 2001-2007, last 2 years





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

*Description:*

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

*Target:*

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

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

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

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

	Last 6 months			Last 2 years		
	Needle biopsies within 7 days of assessment	Total needle biopsies	% (95%CI)	Needle biopsies within 7 days of assessment	Total needle biopsies	% (95%CI)
<i>45-49 years</i>						
BSWN	87	90	96.7 (90.6-99.3)	190	195	
BSCM	65	71	91.5 (82.5-96.8)	110	117	
BSAL	32	40	80.0 (64.4-90.9)	136	154	
BSM	41	42	97.6 (87.4-99.9)	234	267	87.6 (83.1-91.3)
BSCtoC	42	43	97.7 (87.7-99.9)	172	179	96.1 (92.1-98.4)
BSC	35	37	94.6 (81.8-99.3)	136	149	91.3 (85.5-95.3)
BSS	62	74	83.8 (73.4-91.3)	370	439	84.3 (80.5-87.6)
BSHC	6	6	100.0 (54.1-100.0)	67	73	91.8 (83.0-96.9)
BSA Total	370	403	91.8 (88.7-94.3)	1,415	1,573	90.0 (88.4-91.4)
<i>50-69 years</i>						
BSWN	158	162	97.5 (93.8-99.3) ✓✓ *	413	422	
BSCM	83	89	93.3 (85.9-97.5) ✓ ns	302	320	
BSAL	60	65	92.3 (83.0-97.5) ✓ ns	399	462	
BSM	90	104	86.5 (78.4-92.4) ✓ ns	535	617	86.7 (83.8-89.3) ✓ *
BSCtoC	106	107	99.1 (94.9-100.0) ✓✓✓ *	444	451	98.4 (96.8-99.4) ✓✓ *
BSC	86	90	95.6 (89.0-98.8) ✓ ns	337	365	92.3 (89.1-94.8) ✓ ns
BSS	143	170	84.1 (77.7-89.3) xx *	637	723	88.1 (85.5-90.4) ✓ ns
BSHC	39	39	100.0 (91.0-100.0) ✓✓✓ *	168	184	91.3 (86.3-94.9) ✓ ns
BSA Total	765	826	92.6 (90.6-94.3) ✓ *	3,235	3,544	91.3 (90.3-92.2) ✓ *

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

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

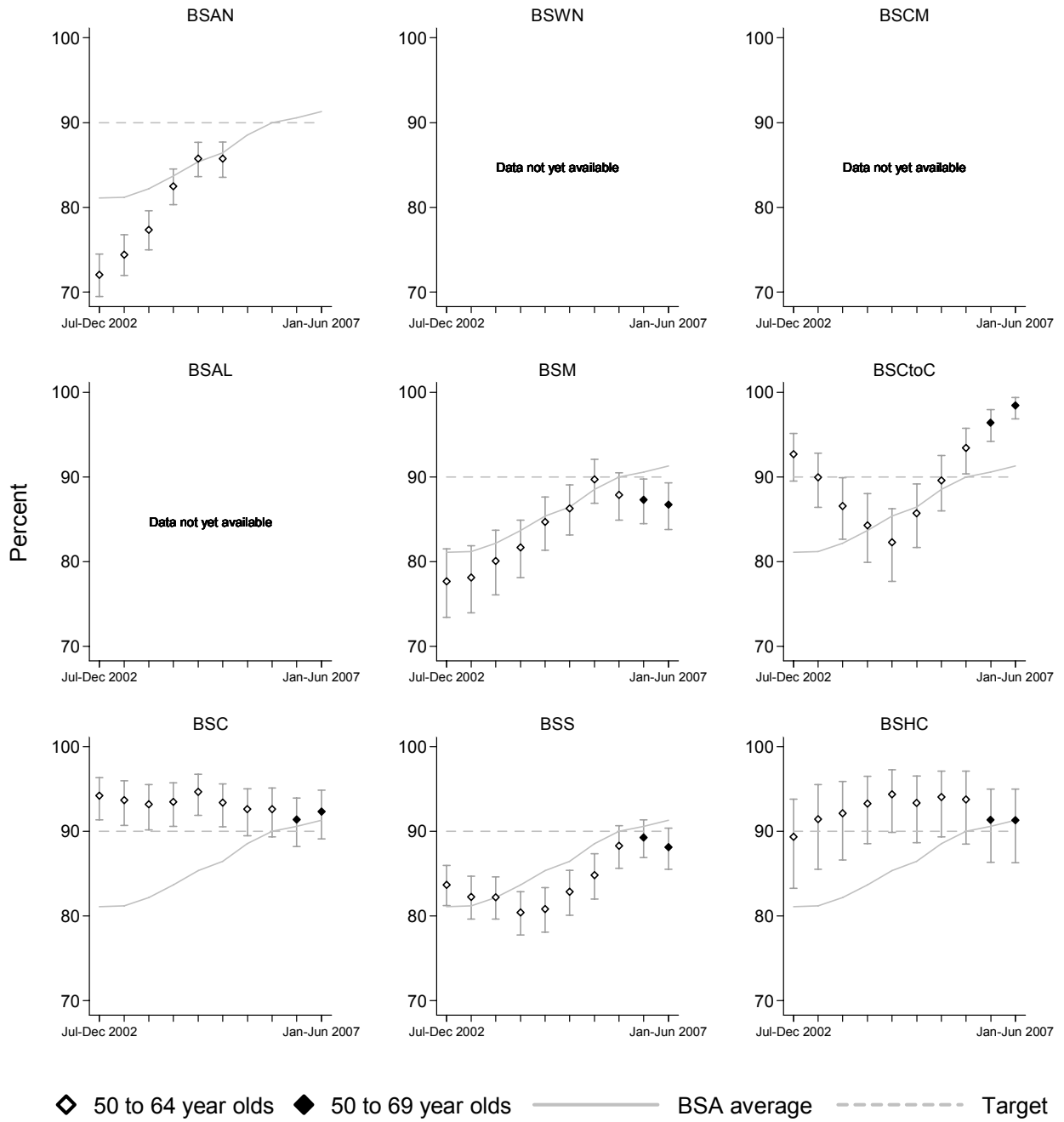
xxx Difference of ≥10% magnitude worse than target value and statistically significant

**Comment:**

**Women receiving Needle Biopsy within 5 working days of assessment, women aged 50-69 years**

For the last 6 months the BSA program percentage of women receiving a needle biopsy within 5 working days (of all those who receive a needle biopsy) was 92.6%. The BSA biennial percentage (91.3%) achieved the target value. Most Lead Providers were on target for this indicator. The biennial BSA estimate has increased over the period 2001- 2007.

**Figure 5c1: Proportion of women having a needle biopsy procedure within 5 working days, last 2 years**



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

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

**Table 5c.2: Proportion of women having an open biopsy procedure within 15 working days**

	Last 6 months			Last 2 years		
	Open biopsies within 15 working days of notification	Total open biopsies	% (95%CI)	Open biopsies within 15 working days of notification	Total open biopsies	% (95%CI)
<i>45-49 years</i>						
BSWN	1	3		7	18	
BSCM	5	5		8	8	
BSAL	4	4		10	13	
BSM	0	3		6	20	30.0 (11.9-54.3)
BSCtoC	0	3		3	12	25.0 (5.5-57.2)
BSC	2	2		10	12	83.3 (51.6-97.9)
BSS	5	6		25	26	96.2 (80.4-99.9)
BSHC	0	0		7	11	63.6 (30.8-89.1)
<b>BSA Total</b>	<b>17</b>	<b>26</b>	<b>65.4 (44.3-82.8)</b>	<b>76</b>	<b>120</b>	<b>63.3 (54.1-71.9)</b>
<i>50-69 years</i>						
BSWN	8	11		20	26	
BSCM	8	8		23	23	
BSAL	1	1		31	47	
BSM	3	5		17	52	32.7 (20.3-47.1) *** *
BSCtoC	1	3		8	23	34.8 (16.4-57.3) *** *
BSC	2	3		19	29	65.5 (45.7-82.1) *** *
BSS	6	7		35	37	94.6 (81.8-99.3) ✓ ns
BSHC	10	10		26	34	76.5 (58.8-89.3) *** *
<b>BSA Total</b>	<b>39</b>	<b>48</b>	<b>81.3 (67.4-91.1) ✓ ns</b>	<b>179</b>	<b>271</b>	<b>66.1 (60.1-71.7) *** *</b>

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

Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

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

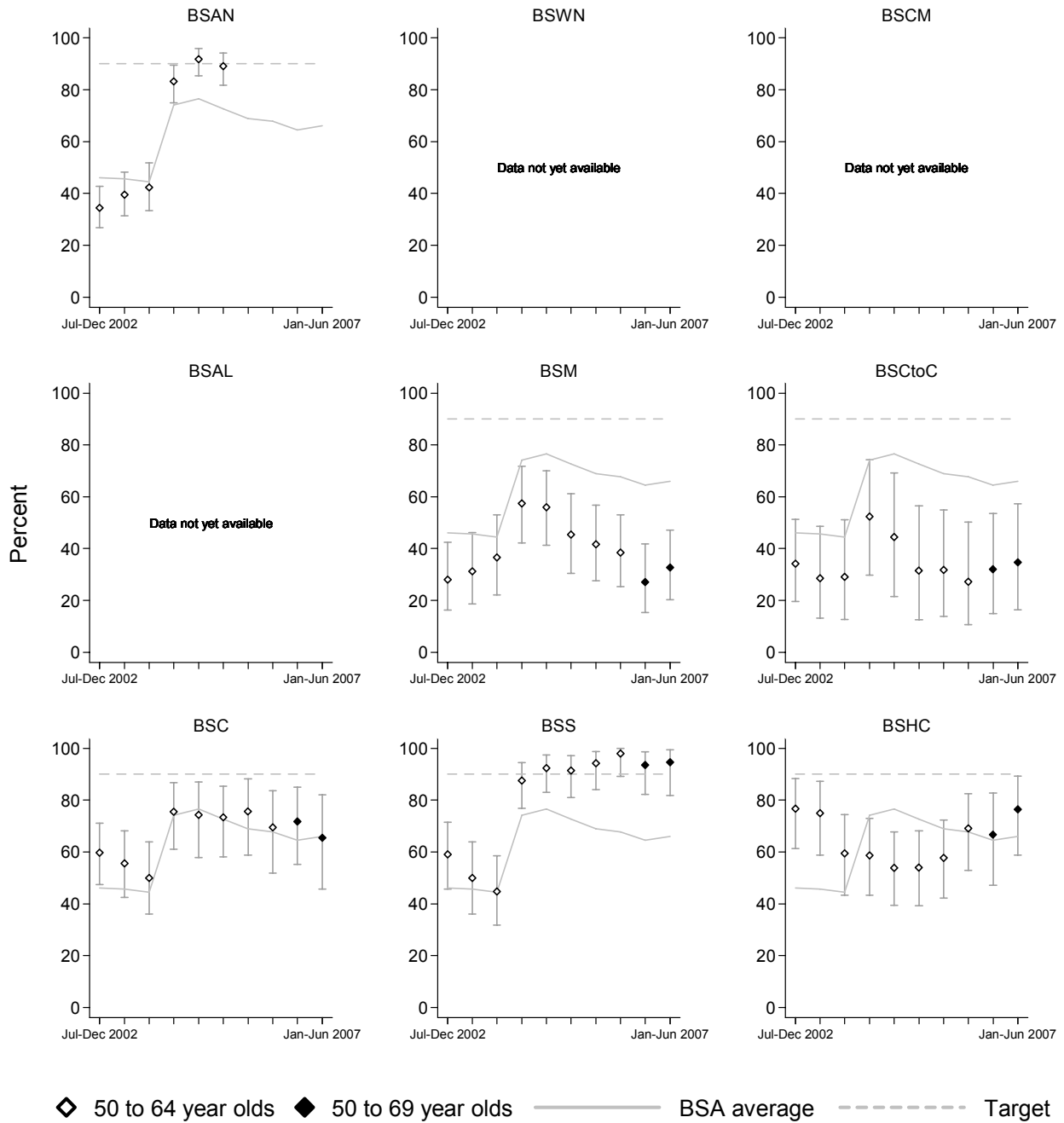
xxx Difference of ≥10% magnitude worse than target value and statistically significant

### Comment:

#### Women having Open Biopsy within 15 working days, women aged 50-69 years

For the last 6 months and last 2 years the BSA program percentage of women having an open biopsy within 15 working days (of all those having an open biopsy) was 81.3% and 66.1% respectively. The biennial proportion was statistically below the target of 90%. All but one Lead Provider, BSS at 94.6% were statistically below the target value for the biennial indicator. Trends for the period 2001-2007 for this indicator show a substantial increase following the biennium ending in Dec. 2003, after which time the proportion of open biopsy procedures has remained more or less steady. (Figure 5c2).

**Figure 5c2: Proportion of women having an open biopsy procedure within 15 working days, 2001-2007**



#### 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 days of final diagnostic biopsy.

**Table 5d: Percentage of women receiving final diagnostic biopsy results within 5 working days**

	Last 6 months			Last 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)
<i>45-49 years</i>						
BSWN	86	102	84.3 (75.8-90.8)	178	215	
BSCM	56	72	77.8 (66.4-86.7)	97	119	
BSAL	37	40	92.5 (79.6-98.4)	138	154	
BSM	32	41	78.0 (62.4-89.4)	206	269	76.6 (71.1-81.5)
BSCtoC	40	44	90.9 (78.3-97.5)	170	182	93.4 (88.8-96.5)
BSC	30	37	81.1 (64.8-92.0)	128	149	85.9 (79.3-91.1)
BSS	72	74	97.3 (90.6-99.7)	431	439	98.2 (96.4-99.2)
BSHC	6	6	100.0 (54.1-100.0)	64	76	84.2 (74.0-91.6)
BSA Total	359	416	86.3 (82.6-89.5)	1412	1603	88.1 (86.4-89.6)
BSWN	142	180	78.9 (72.2-84.6)	377	449	
BSCM	72	89	80.9 (71.2-88.5)	265	324	
BSAL	63	65	96.9 (89.3-99.6)	379	466	
BSM	77	101	76.2 (66.7-84.1)	485	620	78.2 (74.8-81.4)
BSCtoC	97	107	90.7 (83.5-95.4)	397	452	87.8 (84.5-90.7)
BSC	73	91	80.2 (70.6-87.8)	305	368	82.9 (78.6-86.6)
BSS	166	170	97.6 (94.1-99.4)	705	724	97.4 (95.9-98.4)
BSHC	36	43	83.7 (69.3-93.2)	172	195	88.2 (82.8-92.4)
BSA Total	726	846	85.8 (83.3-88.1)	3085	3598	85.7 (84.6-86.9)

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

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

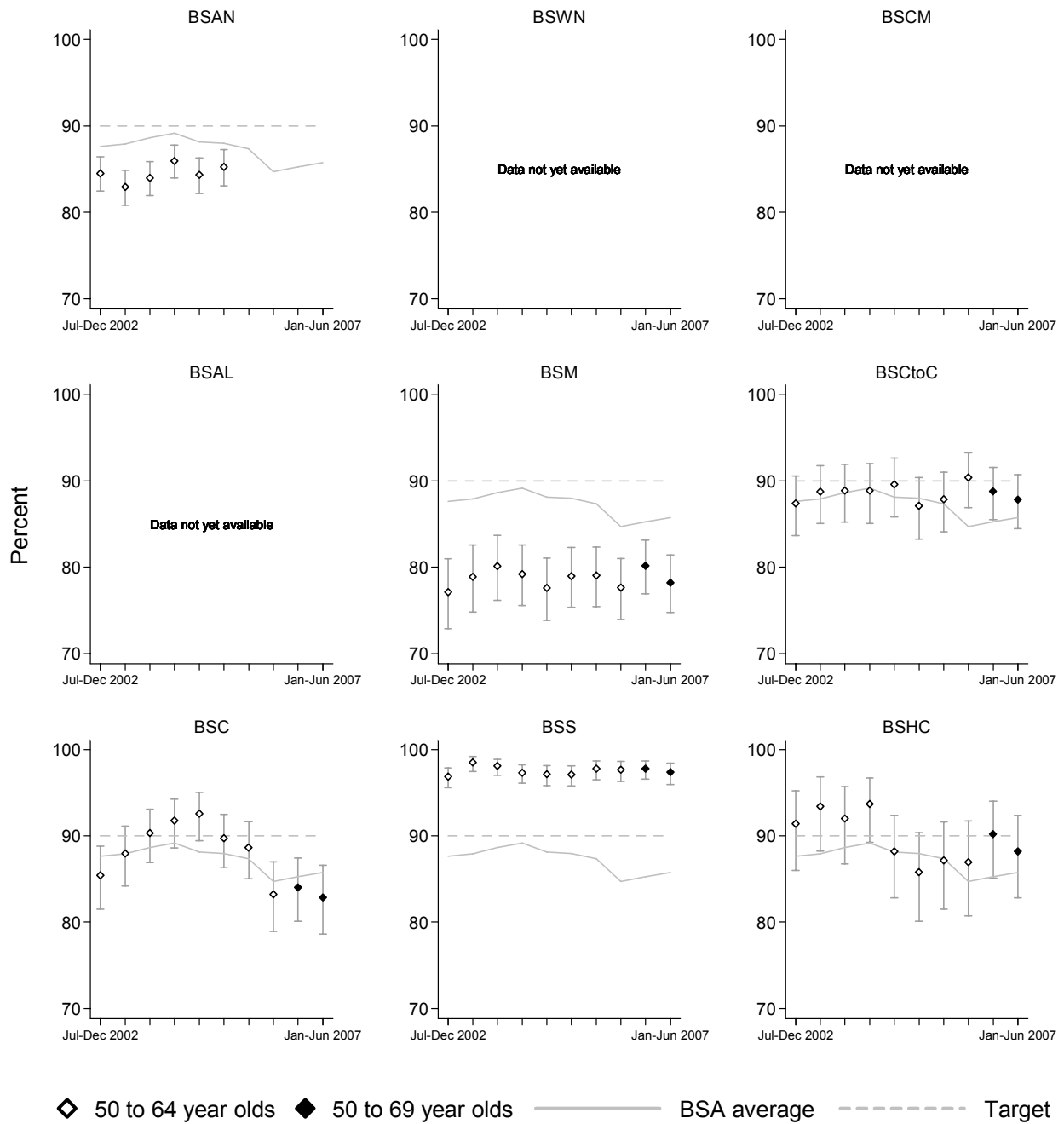
xxx Difference of ≥10% magnitude worse than target value and statistically significant

**Comment:**

**Time taken from final diagnostic biopsy to reporting assessment results, women aged 50-69 years**

For the last 6 months and last 2 years the percentage of women receiving final diagnostic biopsy results within 5 working days (of all those receiving final diagnostic results) was 85.8% and 85.7% respectively.

**Figure 5d: Percentage of women receiving final diagnostic biopsy results within 5 working days, 2001-2007**





**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 5e: Proportion of women receiving timely surgical treatment (Oct, 04 - Sep, 06)**

	First surgical treatment within 20 working days	Total having surgery	% (95%CI)		
BSWN	57	71			
BSCM	28	63			
BSAL	146	284			
BSM	127	256	49.6 (43.3-55.9)	xxx	*
BSCtoC	139	202	68.8 (61.9-75.1)	xxx	*
BSC	119	159	74.8 (67.4-81.4)	xxx	*
BSS	290	394	73.6 (69.0-77.9)	xxx	*
BSHC	73	96	76.0 (66.3-84.2)	xxx	*
BSA Total	979	1,525	64.2 (61.7-66.6)	xxx	*

Note: Due to re-configuration of BSAN into 3 providers, data for BSWN, BSAL and BSCM does not cover a full 24-month screening period. Data for these 3 LPs are not presented, but are included in BSA Total estimates.

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

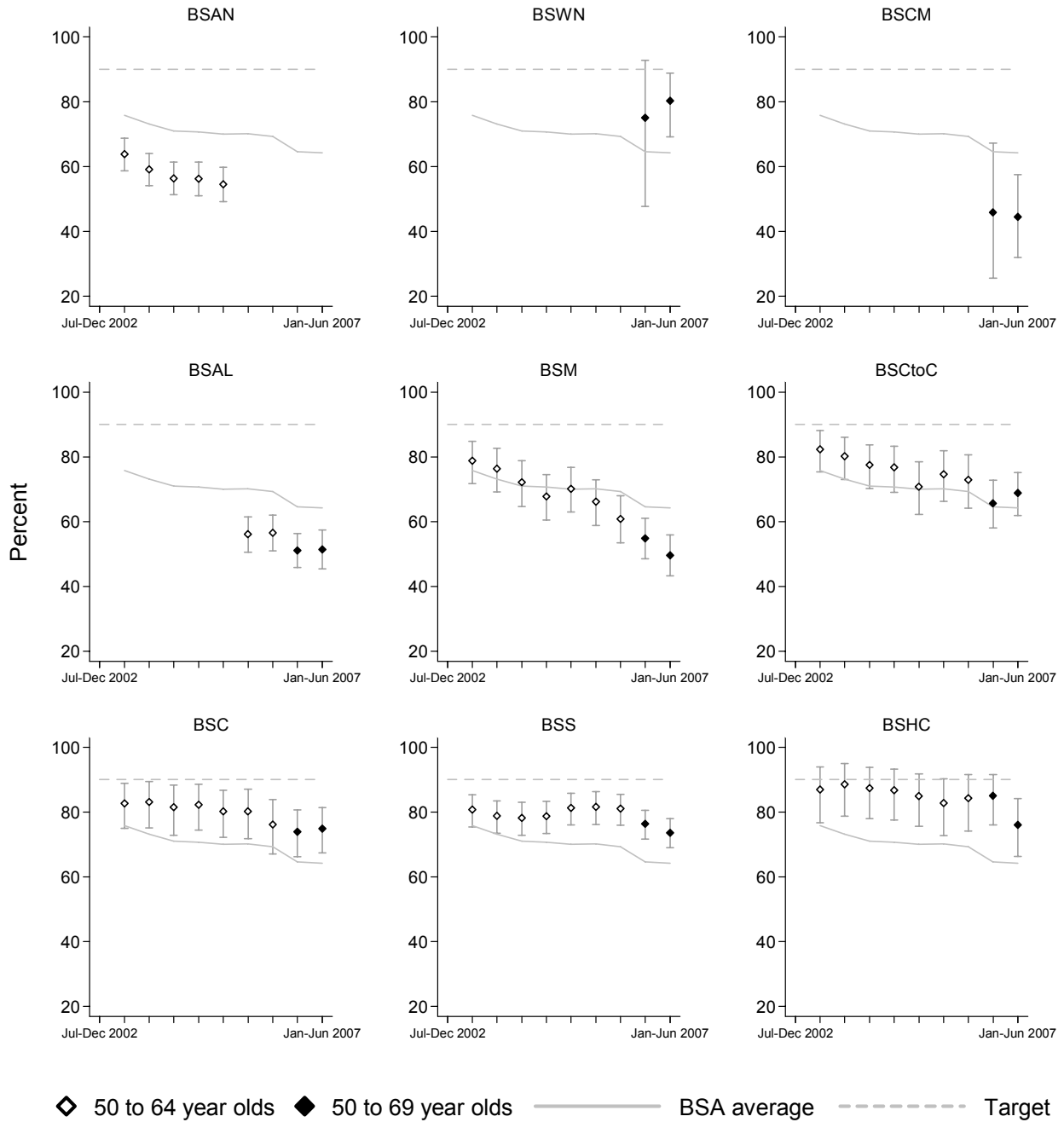
xxx Difference of ≥10% magnitude worse than target value and statistically significant

**Comment:**

**First surgical treatment within 20 working days, women aged 50-69 years**

The BSA percentage was 64.2% and was statistically below the target value of 90% and ≥10% different in relative magnitude. All Lead Providers were statistically below the target value for this indicator and none of the Lead Providers had the target of 90% in their confidence intervals. The overall BSA estimate has slightly declined over the period 2002-2006 (Figure 5e).

**Figure 5e: Proportion of women receiving surgical treatment, 2002-2006**



# 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*
2007	BSWN	Jan-Jun,2007	25260	21110	19535	15245	12445	68335	25260	21110	19535	15245	12445	68335
2006	BSWN	Jul-Dec, 2006	25260	21110	19535	15245	12445	68335	25260	21110	19535	15245	12445	68335
2006	BSWN	Jan-Jun, 2006	24280	20530	19010	14790	11805	54330	24280	20530	19010	14790	11805	54330
2007	BSAL	Jan-Jun, 2007	15370	13000	11000	7840	6360	38200	15370	13000	11000	7840	6360	38200
2006	BSAL	Jul-Dec, 2006	15370	13000	11000	7840	6360	38200	15370	13000	11000	7840	6360	38200
2006	BSAL	Jan-Jun, 2006	14840	12610	10670	7610	6150	30890	14840	12610	10670	7610	6150	30890
2005	BSAL	Jul-Dec, 2005	14840	12685	11295	8625	23726	32605	14840	12685	11295	8625	23726	32605
2007	BSCM	Jan-Jun, 2007	15255	12980	11670	8975	7035	40660	15255	12980	11670	8975	7035	40660
2006	BSCM	Jul-Dec, 2006	15255	12980	11670	8975	7035	40660	15255	12980	11670	8975	7035	40660
2006	BSCM	Jan-Jun, 2006	14740	12685	11295	8625	6595	32605	14740	12685	11295	8625	6595	32605
2005	BSCM	Jul-Dec, 2005	14740	12685	11295	8625	6595	32605	14740	12685	11295	8625	6595	32605
2007	BSAN	Jan-Jun, 2007	52145	44870	39290	30050	23365	114210	65181	45135	39703	30323	29206	115160
2005	BSAN	Jan-Jun, 2005	52145	44870	39290	30050	23365	114210	65181	45135	39703	30323	29206	115160
2004	BSAN	Jul-Dec, 2004	52145	44870	39290	30050	23365	114210	52145	44870	39290	30050	23365	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
2007	BSM	Jan-Jun,2007	23590	20580	18950	15055	13170	67755	23590	20580	18950	15055	13170	67755
2006	BSM	Jul-Dec, 2006	23590	20580	18950	15055	13170	67755	23590	20580	18950	15055	13170	67755
2006	BSM	Jan-Jun, 2006	22915	20025	18305	15005	12420	53335	23043	20158	18510	15108	12541	53775
2005	BSM	Jul-Dec, 2005	22915	20025	18305	15005	12420	53335	22915	20025	18305	15005	12420	53335
2005	BSM	Jan-Jun, 2005	22405	19495	17485	14595	11935	51575	22660	19760	17895	14800	12178	52455
2004	BSM	Jul-Dec, 2004	22405	19495	17485	14595	11935	51575	22405	19495	17485	14595	11935	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
2007	BSCtoC	Jan-Jun,2007	20035	17435	16190	12585	11130	57340	20035	17435	16190	12585	11130	57340
2006	BSCtoC	Jul-Dec, 2006	20035	17435	16190	12585	11130	57340	20035	17435	16190	12585	11130	57340
2006	BSCtoC	Jan-Jun, 2006	19520	17090	15565	12465	10695	45120	19631	17160	15709	12488	10785	45356
2005	BSCtoC	Jul-Dec, 2005	19520	17090	15565	12465	10695	45120	19520	17090	15565	12465	10695	45120
2005	BSCtoC	Jan-Jun, 2005	19075	16810	14990	12375	10335	44175	19298	16950	15278	12420	10515	44648
2004	BSCtoC	Jul-Dec, 2004	19075	16810	14990	12375	10335	44175	19075	16810	14990	12375	10335	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
2007	BSC	Jan-Jun,2007	16950	14225	13200	9795	8175	37220	16950	14225	13200	9795	8175	45395
2006	BSC	Jul-Dec, 2006	16950	14225	13200	9795	8175	37220	16950	14225	13200	9795	8175	45395
2006	BSC	Jan-Jun, 2006	16420	13920	12905	9675	7820	36500	16588	13969	13016	9725	7914	36710
2005	BSC	Jul-Dec, 2005	16420	13920	12905	9675	7820	36500	16420	13920	12905	9675	7820	36500
2005	BSC	Jan-Jun, 2005	15750	13725	12460	9475	7445	35660	16085	13823	12683	9575	7633	36080
2004	BSC	Jul-Dec, 2004	15750	13725	12460	9475	7445	35660	15750	13725	12460	9475	7445	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

\*Note: 50-69 populations presented from Jul-Dec, 2006. For previous 6 month periods this column represents 50-64 year populations.

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*
2007	BSS	Jan-Jun, 2007	26290	23295	21945	16705	14130	76075	26290	23295	21945	16705	14130	76075
2006	BSS	Jul-Dec, 2006	26290	23295	21945	16705	14130	76075	26290	23295	21945	16705	14130	76075
2006	BSS	Jan-Jun, 2006	25630	22660	21435	16295	13520	60390	25790	22716	21685	16388	13655	60789
2005	BSS	Jul-Dec, 2005	25630	22660	21435	16295	13520	60390	25630	22660	21435	16295	13520	60390
2005	BSS	Jan-Jun, 2005	24990	22435	20435	15925	12980	58795	25310	22548	20935	16110	13250	59593
2004	BSS	Jul-Dec, 2004	24990	22435	20435	15925	12980	58795	24990	22435	20435	15925	12980	58795
2004	BSS	Jan-Jun, 2004		22240	19300	15530		57070		22338	19868	15728		57933
2003	BSS	Jul-Dec, 2003		22240	19300	15530		57070		22240	19300	15530		57070
2003	BSS	Jan-Jun, 2003		22320	18390	15250		55960		22059	18366	15147		55572
2002	BSS	Jul-Dec, 2002		21878	17432	14764		54074		21878	17432	14764		54074
2007	BSHC	Jan-Jun, 2007	10890	9435	8760	6670	5970	30835	10890	9435	8760	6670	5970	30835
2006	BSHC	Jul-Dec, 2006	10890	9435	8760	6670	5970	30835	10890	9435	8760	6670	5970	30835
2006	BSHC	Jan-Jun, 2006	10605	9160	8520	6745	5730	24425	10666	9206	8584	6775	5756	24565
2005	BSHC	Jul-Dec, 2005	10605	9160	8520	6745	5730	24425	10605	9160	8520	6745	5730	24425
2005	BSHC	Jan-Jun, 2005	10360	8975	8265	6625	5625	23865	10483	9068	8393	6685	5678	24145
2004	BSHC	Jul-Dec, 2004	10360	8975	8265	6625	5625	23865	10360	8975	8265	6625	5625	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
2007	BSA Total	Jan-Jun, 2007	153640	132060	121250	92870	78415	424595	153640	132060	121250	92870	78415	424595
2006	BSA Total	Jul-Dec, 2006	153640	132060	121250	92870	78415	424595	153640	132060	121250	92870	78415	424595
2006	BSA Total	Jan-Jun, 2006	148950	128680	117705	91210	74735	337595	149578	129034	118479	91508	75201	339020
2005	BSA Total	Jul-Dec, 2005	124670	108225	99320	77435	80506	284980	124670	108225	99320	77435	80506	284980
2005	BSA Total	Jan-Jun, 2005	144725	126310	112925	89045	71685	328280	159016	127283	114885	89913	78459	332080
2004	BSA Total	Jul-Dec, 2004	144725	126310	112925	89045	71685	328280	144725	126310	112925	89045	71685	328280
2004	BSA Total	Jan-Jun, 2004	0	124115	107775	86735	0	318625	72363	125213	110350	87890	35843	323453
2003	BSA Total	Jul-Dec, 2003	0	124115	107775	86735	0	318625	0	124115	107775	86735	0	318625
2003	BSA Total	Jan-Jun, 2003	0	124973	103738	84750	0	313460	0	123020	103011	84181	0	310212
2002	BSA Total	Jul-Dec, 2002	0	121925	98247	81626	0	301798	0	121925	98247	81626	0	301798

\*Note: 50-69 populations presented from Jul-Dec, 2006. For previous 6 month periods this column presents 50-64 year populations.

## APPENDIX B: POPULATION DENOMINATORS BY ETHNIC GROUP

Year	Lead Provider	Report period	Annual Census projection estimates			Smoothed 6 monthly population estimates		
			Maori	Pacific	Other	Maori	Pacific	Other
2007	BSWN	Jan-Jun,2007	6180	2305	59850	6180	2305	59850
2006	BSWN	Jul-Dec, 2006	6180	2305	59850	6180	2305	59850
2006	BSWN	Jan-Jun, 2006	8730	3195	78490	8730	3195	78490
2007	BSAL	Jan-Jun, 2007	2360	3360	32480	2360	3360	32480
2006	BSAL	Jul-Dec, 2006	2360	3360	32480	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
2007	BSCM	Jan-Jun, 2007	4330	5280	31050	4330	5280	31050
2006	BSCM	Jul-Dec, 2006	4330	5280	2365	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
2007	BSM	Jan-Jun, 2007	10050	685	57020	10050	685	57020
2006	BSM	Jul-Dec, 2006	10050	685	57020	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
2007	BSCtoC	Jan-Jun, 2007	7690	560	49090	7690	560	49090
2006	BSCtoC	Jul-Dec, 2006	7690	560	49090	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
2007	BSC	Jan-Jun,2007	3260	2195	39940	3260	2195	39940
2006	BSC	Jul-Dec, 2006	3260	2195	39940	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
2007	BSS	Jan-Jun,2007	2725	510	72840	2725	510	72840
2006	BSS	Jul-Dec, 2006	2725	510	72840	2725	510	72840
2006	BSS	Jan-Jun, 2006	2215	405	57770	2235	409	58145
2005	BSS	Jul-Dec, 2005	2215	405	57770	2215	405	57770
2005	BSS	Jan-Jun, 2005	2135	390	56270	2175	398	57020
2004	BSS	Jul-Dec, 2004	2135	390	56270	2135	390	56270
2004	BSS	Jan-Jun, 2004	2010	380	54680	2073	385	55475
2003	BSS	Jul-Dec, 2003	2010	380	54680	2010	380	54680
2003	BSS	Jan-Jun, 2003	2203	398	53360	2060	373	53163
2002	BSS	Jul-Dec, 2002	2110	365	51645	2110	365	51645

\*Note: 50-69 populations presented from Jul-Dec, 2006. 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		
			Maori	Pacific	Other	Maori	Pacific	Other
2007	BSHC	Jan-Jun, 2007	1170	155	29510	1170	155	29510
2006	BSHC	Jul-Dec, 2006	1170	155	29510	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
2007	BSA Total	Jan-Jun, 2007	37765	15050	371780	37765	15050	371780
2006	BSA Total	Jul-Dec, 2006	37765	15050	371780	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

\*Note: 50-69 populations presented from Jul-Dec, 2006. For previous 6 month periods 50-64 year populations are presented.

## APPENDIX C: GLOSSARY OF TERMS

### **Assessment**

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

### **Assessment rate**

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

### **Asymptomatic**

Women who do not have symptoms of breast cancer

### **Axillary dissection**

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

### **Biopsy**

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

### **Benign biopsy weight**

The weight of the open biopsy specimen presented to the pathologist

### **Benign biopsy rate**

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

### **BSA**

BreastScreen Aotearoa

### **Coverage**

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

### **Initial screen**

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

### **False negative**

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

### **False positive result**

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

### **High risk invasive breast cancer**

Having at least one of the following features:

- a.  $pT > 2\text{cm}$  (pathological tumour size and/or
- b. Grade 2-3 (histologic and/or nuclear grade)

### **Lead Provider**

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

### **Positive predictive value**

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

**Pre-operative diagnosis rate**

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

**Rescreen**

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

**Sensitivity**

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

**Specificity**

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

**Subsequent screen**

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

**Technical recall rate**

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

**Technical reject rate**

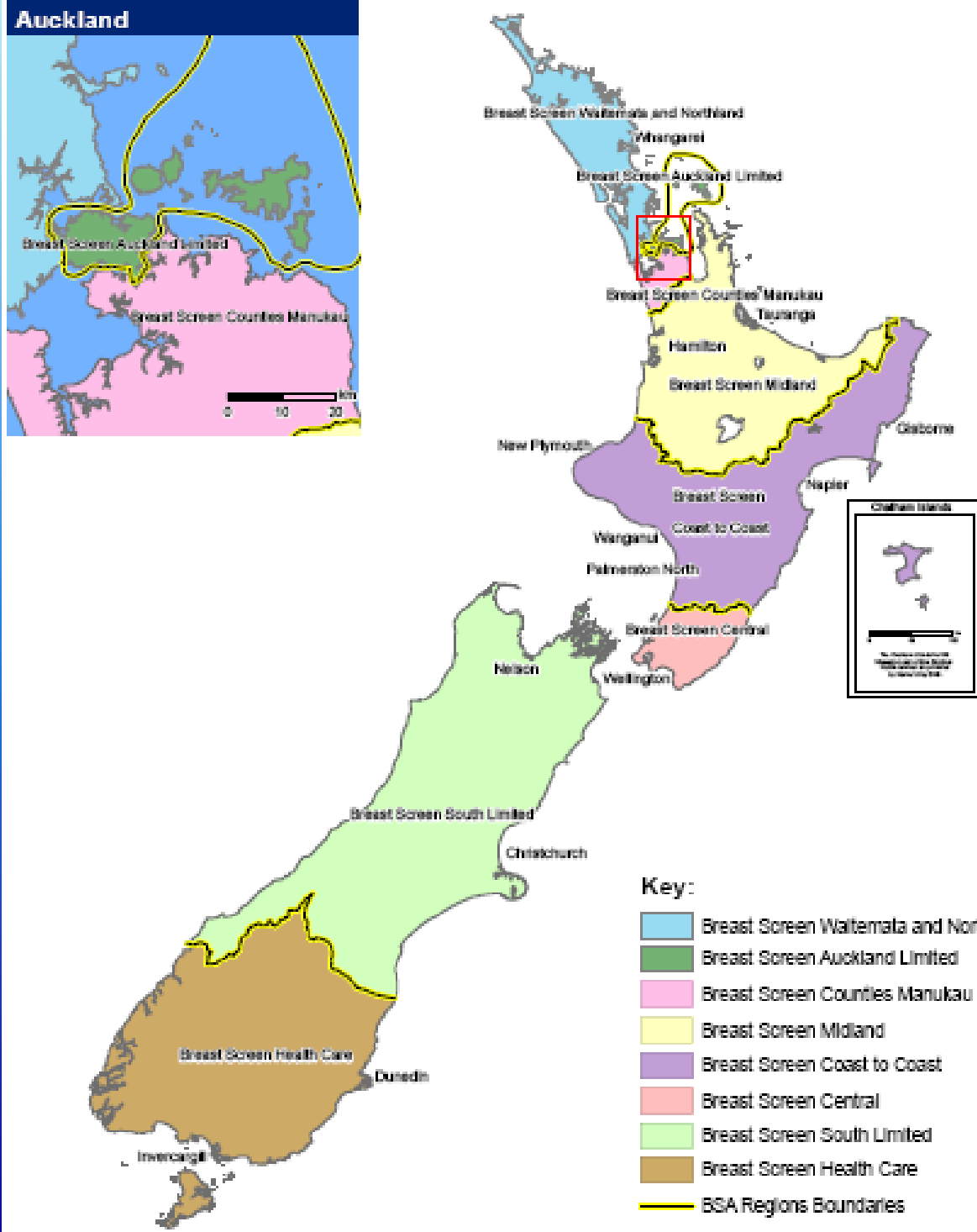
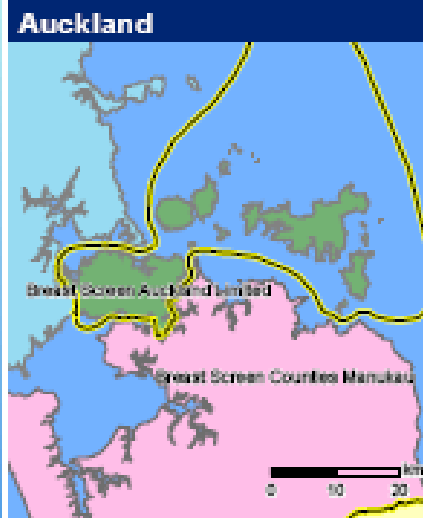
Number of films rejected as a percentage of the number of films taken, calculated separately for women who are screened in a fixed unit and a mobile unit



# APPENDIX D: Map of BSA Lead Provider Regions

## BSA Lead Provider Regions

Breast Screen Aotearoa



- Key:**
- Breast Screen Waitemata and Northland
  - Breast Screen Auckland Limited
  - Breast Screen Counties Manukau
  - Breast Screen Midland
  - Breast Screen Coast to Coast
  - Breast Screen Central
  - Breast Screen South Limited
  - Breast Screen Health Care
  - BSA Regions Boundaries

BSA Regions



Public Health Intelligence  
 Charting our Health  
[www.moh.govt.nz/pih/](http://www.moh.govt.nz/pih/)  
 Public Health Directorate  
 Ministry of Health  
 Data Sources:  
 Ministry of Health

April 2008



