

**BreastScreen Aotearoa**  
**MONITORING REPORT No. 2:**

**Women screened  
between 1 July and 30 September, 1999**

**BreastScreen Aotearoa Independent Monitoring Group  
Report to the Health Funding Authority**

**18 May 2000**

Technical Report No. 22  
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Under contract with the Health Funding Authority the monitoring group is required to monitor and evaluate aspects of BreastScreen Aotearoa, the national breast screening programme. The measures of performance assessed by the monitoring group are specified by the Health Funding Authority. The list of agreed measures of performance to be included in quarterly and annual monitoring reports to the Health Funding Authority is given in Appendix A of the first report. The monitoring group can also recommend to the Health Funding Authority additional monitoring and evaluation that it considers to be required.

A draft of this report was written in March 2000 and sent to the Health Funding Authority on March 27, 2000. The Health Funding Authority circulated the draft to lead providers for comment. The report was finalised on May 18, 2000 after BSAIMG received and considered Health Funding Authority and lead provider comments.

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## **Executive Summary and Recommendations**

This monitoring report of BreastScreen Aotearoa presents results for 53,533 women screened from 1 December, 1998, to 30 September, 1999, whose lead provider records passed the validation checks of the New Zealand Health Information Service (NZHIS) of the Ministry of Health to become the national monitoring data set.

Difficulties in the capture of appropriate data for the national monitoring data set have been encountered. Some of these have been able to be resolved. Further attempts to resolve issues as they arise continue to be made. The degree to which problems in the data collection have occurred continues to severely limit the ability of the monitoring group to monitor the quality of the programme as specified by the target indicators. Because of this, the monitoring group is unable to make an assessment of the quality of the screening programme.

The Health Funding Authority have advised that 1,120 screening records for BreastScreen Midland had not been included in the national monitoring set. As this omission is a significant number of women performance measures for this lead provider have not been calculated where they are expressed as a per cent of the number of women screened.

The lack of information available on the very important issue of identification and invitation of women in BreastScreen Aotearoa remains of concern to the monitoring group. Identification rates can not be ascertained due to limitations and interpretations associated with current privacy legislation. Currently, there is also no programme indicator for the identification and invitation of women.

If two-yearly screening covered 70% of the eligible population then 74,065 women would be screened in a nine-month period. The number screened from December 1, 1998 was about 72% of the expected number. This represents a significant increase in the coverage of the programme compared to the first six months of 1999. However, lead providers that appear to have relatively low coverage are unlikely to meet the target for coverage in the first two years of operation. This is likely to be a problem that becomes compounded as new women enter the accepted age range for screening at the same time as women in the programme return for their biennial screening mammograms. This has been a common problem for programmes overseas and requires clear planning at least two to three years ahead.

The monitoring group received data for assessment episodes of some, but not all, women referred for assessment. There were 1,764 women (excluding BreastScreen Midland) referred for assessment in this quarter though the monitoring group only received completed assessment records (where the outcome is known) for 983 women. It is not clear from the national monitoring data set whether this represents delays in diagnosis or delays in data entry for the other 781 women. Also, it is possible that this represents a practice of extended assessment, sometimes called early recall, for some women. This is where a clear decision of the outcome of assessment is deferred. This is not considered by the monitoring group, or internationally, to be best practice. If this is occurring it would be of concern. Under current data collection processes, the assessment records of these women may not become part of the national monitoring data set until their assessment has been completed and this may be up to two years after the date of screening. As a consequence, BSAIMG is unable to monitor the practice of extended assessment. This needs to be explored urgently by the Health Funding Authority and made transparent in the national monitoring data set.

Despite the incompleteness of assessment records the specificity, false positive rate, and cancer detection rate, has been calculated for lead providers who have 90% or more of assessment records complete in the national monitoring data set. However, the results do not truly represent the situation within BreastScreen Aotearoa overall due to the level of incompleteness of the national monitoring data set.

Due to delays in finalising the national treatment data set and the related collection of treatment data, treatment data was not received by the monitoring group. The relevant data is currently being collected by the HFA. This section has not been completed in this report.

From the data available, one lead provider continues not to have met the target of 95% for the timely notification of results to women and for another lead provider insufficient data was available in this quarter to measure this performance indicator.

The monitoring group has been unable to measure the time from screening to the offer of assessment for 44% of women referred to assessment. Whilst it is known that some of the outstanding assessments are for women screened in September 1999 and assessed in October 1999 only two lead providers had sufficiently complete assessment records in the national monitoring data set for reasonably accurate measurement of this performance indicator. One of these two providers continues to perform considerably below the target of at least 90% for this performance indicator.

Major deficiencies in the data available existed and this will need to be improved considerably if BreastScreen Aotearoa is to be monitored to international standards. Further assessment of the data by the monitoring group may result in revision of some of the results provided in this report at a later date.

## **Data and service issues encountered**

Although BreastScreen Aotearoa was officially launched on the 10th December 1998 it was some time before national data collection and collation systems were fully established and tested. Screening has continued for a year with little performance monitoring being able to be completed from the national monitoring data set.

### *Registration*

BSAIMG are awaiting advice from the HFA on lead provider registration processes to ascertain if registration is accurately recorded in the national monitoring data set.

No date of registration is recorded in the current national monitoring data set therefore the number of registrations in a given quarter and age at registration can not be accurately calculated.

### *Missing data*

The HFA advised that BreastScreen Midland had not forwarded 1,120 screening records for inclusion in the national monitoring data set. As a result performance measures that are expressed as a percentage of the number of women screened have not been calculated for this lead provider.

### *Outstanding data*

Of the 394 outstanding assessment records for the period ending 30 June, 1999, 65% remain outstanding as at 30 September, 1999.

For the quarter ending 30 September, 1999, 44% of the referral to assessment records do not have an outcome recorded in the national monitoring data set. BreastScreen Auckland and North had 246 assessment records rejected by NZHIS validation checks. It is known that some of the outstanding assessments are for women screened in September 1999 and assessed in October 1999 but other reasons for incomplete assessment records remain unknown.

### *Age Range*

As in the first monitoring report women aged less than 50 and 65 and greater were screened. As this screening is outside of BreastScreen Aotearoa programme policy they have been excluded from the data for this report. However, a variation of policy to include first screening for women up to age 65 years and five months was made and data for these women will be summarised in the annual monitoring report of BSAIMG.

### *Duplicate NHI numbers*

Duplicate NHI numbers were again received in the national monitoring data set. In the screening detail table of the national monitoring data set, 24 screened women recorded by NHI had more than one lead provider. In the registration table of the national monitoring data set, 65 women recorded by NHI number had more than one source of identification recorded, 21 women recorded by NHI number had more than one date of birth recorded, 80 women recorded by NHI number had more than one domicile code and 84 women recorded by NHI number were registered with more than one lead provider.

#### *Screening episode and round number*

Version 2.12 of the Data Management Manual details the definition of screening round and episode. The two ex-pilot areas recorded the screening episode differently within the national monitoring data set. BreastScreen HealthCare recorded women up to screening episode five in the data for this quarter, while BreastScreen Midland had the majority of women recorded as their first screening episode. If this field is to record the number of screening episodes for each woman, then ex-pilot areas could potentially have women in their fifth screening episode. Also, the issue of how to record incomplete screening episodes needs to be resolved if the BSAIMG is to use this field to calculate incident and prevalent screens.

#### *Ethnic affiliation*

No specific ethnic affiliation was recorded for 5.9% of the screening records for this quarter and 6.8% of the cumulative number of women screened.

#### *Type of screening unit*

BreastScreen Midland recorded six screening sites in the national monitoring data set when only two values were valid.

BreastScreen South recorded that all screening was carried out at a fixed unit, although BSAIMG were advised that they commenced screening on the mobile unit during this quarter. This meant that some performance indicators could not be reported for this lead provider.

#### *Technical recalls*

Only three lead providers for whom data was recorded in the national monitoring data set had women recalled to a mobile unit. This may be due to data entry errors or the method of recording this data item in the various data systems.

#### *Technical repeat rate*

The very low number of technical repeats recorded on the mobile units, where films are not developed, suggested that interpretation of the definition of this performance indicator needs to be clarified.

#### *Referral to assessment*

BreastScreen Midland recorded zero as a valid value in the field recording the decision of the radiologist (field B07.03 of the Data Management Manual). This is an invalid value.

#### *Benign biopsy rate*

The recording of pathology results (field B17.12) is to become a mandatory field so that the benign biopsy rate can be accurately measured

### ***Recommendations regarding service issues encountered***

1. NZHIS needs to investigate duplicate NHI numbers. When a woman's screening details are duplicated because she has transferred from one lead provider to another, NZHIS will need to record this and transfer this information to the monitoring group.
2. More effort is needed to provide timely assessment appointments for women with abnormal mammograms, in order to minimise anxiety.
3. BSAIMG is unable to monitor the practice of extended assessment. This needs to be explored urgently by the Health Funding Authority and made transparent in the national monitoring data set.
4. The date of first level of assessment and the outcome of assessment needs to be complete in the national monitoring data set within two months of screening.

### ***Recommendations regarding data issues encountered***

5. Inaccurate records need to be reduced to below 2% in the first instance and should preferably be below 0.1% of all records.
6. The monitoring group (BSAIMG) considers that the incompleteness of the data in key areas of the programme is sufficiently serious that the Health Funding Authority should consider stopping further recruitment and invitation until acceptable monitoring of the programme can occur. At the very least, a date needs to be set beyond which recruitment and invitation should stop if data systems can not provide acceptable data for the monitoring of all aspects of the programme.
7. BSAIMG will not attempt to tabulate the age at registration.
8. The entry of the data in the relevant section of the national monitoring data set used to calculate the technical repeat rate needs validating.
9. The entry of the data in the relevant section of the national monitoring data set used to calculate the technical recall rate needs validating.
10. The monitoring group recommends that BreastScreen HealthCare and BreastScreen Auckland and North examine their referral to assessment protocols to reduce the rate of referral to assessment.
11. The monitoring group recommends that the date, type, specimen weight and result of each biopsy is captured by the national monitoring data set.

# 1. Data Summary

Each monitoring report reflects the data received by BSAIMG from the national monitoring data set for the period of the report. Improvements in the data of lead providers that have occurred since receipt by BSAIMG of the national monitoring data set are unable to be reflected in each report but such improvements will be reflected in subsequent reports.

Within each BSAIMG report there will be a set of recommendations. The Health Funding Authority may have acted upon the recommendations but this may not be reflected in the data for the subsequent report due to the necessary time delay in processing and reporting data. In addition, changes may have been initiated following the issuing of the draft report which will only become apparent in subsequent reports.

In an attempt to minimise data inaccuracies in each transfer of data to BSAIMG, the Health Funding Authority has decided that each data set will be checked by Health Funding Authority staff (in addition to NZHIS checks) prior to being submitted to BSAIMG. This process will be effective for the national monitoring data set utilised for monitoring report number 4.

BSAIMG have been advised that a significant number (1,120) of screening records had not been submitted by BreastScreen Midland for inclusion in the national monitoring data set for this quarter. (see section 1.3) As a consequence BSAIMG has been unable to report on many performance indicators for this lead provider in this report.

BreastScreen Auckland and North did not suppress a date recorded (date of notification of assessment result) in data field “date of notification of final diagnostic biopsy result to women” (B18.06) when transferring data to NZHIS, and the majority of the assessment records for this lead provider were not able to be included in the national monitoring data set for the quarter. As a consequence, BSAIMG have been unable to report on many assessment performance indicators for this lead provider.

***The key to the tables which appear in this document is:***

*ABS = BreastScreen Auckland and North*

*HWL = BreastScreen Midland*

*MCH = BreastScreen Coast to Coast*

*HVH = BreastScreen Central*

*BSS = BreastScreen South*

*HCO = BreastScreen HealthCare*

## 1.1 Registration rate - overall

Registration is completed when a woman has completed a registration and informed consent form. As some lead providers are screening women outside the age range 50-64, it is likely that some women registered are also likely to be outside the age range. However, no date of registration is recorded within the national monitoring data set. Therefore, it is not possible to provide numbers or women registered by age. It is also not possible to assess the number of women who register but do not complete the screening process. If women are registered at the time of presenting for screening it may not be a measure of the intention to be screened. Women may change lead providers and, therefore, be recorded in the information systems of two lead providers. Not all women registered will eventually be screened. It is possible that registration is obtained and recorded differently by lead providers and the interpretation of differences in registration rates is currently not clear.

The numbers of women registered by BreastScreen Aotearoa in the national monitoring data set for this quarter and since the commencement of the programme are shown in Table 1.1.

Table 1.1. Overall registration rates by lead provider.

Lead provider	Quarterly number registered (% of projected population)		Cumulative number registered (% of projected population)	
ABS	6,726	(7.0)	22,025	(23.0)
HWL	2,399	(5.3)	12,916	(28.6)
MCH	4,063	(10.5)	8,213	(21.3)
HVH	4,709	(15.2)	8,226	(26.6)
BSS	4,738	(9.4)	11,549	(22.9)
HCO	2,909	(13.8)	6,726	(31.8)
TOTAL	25,544	(9.1)	69,655	(24.7)

## 1.2 Registration rate – ethnicity

Overall 92.4% of women provided information about their ethnicity at registration.

Table 1.2 records cumulative registration by ethnicity and the estimated registration coverage of the target population by lead provider.

Table 1.2. Overall registration rates for three ethnic groups for each lead provider.

Lead provider	Quarterly number registered (% of projected population)			Cumulative number registered (% of projected population)		
	Maori	PI	Other	Maori	PI	Other
ABS				1,383 (16.9)	990 (16.4)	19,652 (23.9)
HWL				1,071 (16.4)	148 (34.2)	11,697 (30.5)
MCH				468 (9.7)	39 (13.3)	7,706 (23.1)
HVH				281 (13.1)	155 (11.6)	7,790 (28.0)
BSS				144 (7.7)	47 (14.5)	11,358 (23.5)
HCO				84 (9.7)	19 (17.6)	6,623 (32.5)
TOTAL				3,431 (14.1)	1,398 (16.4)	64,826 (25.9)

NB Not stated ethnicity included in “other” category.

In this quarter the number of registered women for whom ethnicity was not specified were 205 from BreastScreen Auckland and North, 552 from BreastScreen Midland, 271 from BreastScreen Coast to Coast, 343 from BreastScreen Central, 610 from BreastScreen South and 87 from BreastScreen HealthCare.

The cumulative number of women registered for whom ethnicity was not specified was 1,016 from BreastScreen Auckland and North, 1,664 from BreastScreen Midland, 405 from BreastScreen Coast to Coast, 506 from BreastScreen Central, 1,486 from BreastScreen South and 238 from BreastScreen HealthCare.

### 1.3 Coverage - overall

**Definition** – this is a population-based measure of the proportion of women 50-64 years of age participating in mammographic screening in the programme.

**Target** - > 70% of all women aged 50-64 are to be screened within the programme within each two year screening cycle.

To September 30, 1999, 53,533 women aged 50-64 years have been screened in the national breast screening programme, BreastScreen Aotearoa. Nationwide this represents 19% of women aged 50-64 years.

From the national monitoring data set the number of women screened and coverage is shown by lead provider in Table 1.3. Coverage has been measured by dividing the number of women screened by the number of eligible women expected from projected annual mean usually-resident population projections derived from the 1996 population census. Coverage rates are shown as percentages for each lead provider and for the whole country. The target screening coverage for BreastScreen Aotearoa is greater than 70% of women aged 50-64 years.

Table 1.3. Overall number of women screened and per cent coverage by lead provider.

Lead provider	Quarterly number screened (% of projected population)		Cumulative number screened since December 1998 (% of projected population)	
ABS	7,349	(7.7)	14,954	(15.6)
HWL	2,886	(6.4)	7,190	(15.9)
MCH	4,037	(10.5)	8,178	(21.2)
HVH	2,336	(7.6)	5,834	(18.9)
BSS	4,712	(9.3)	11,509	(22.8)
HCO	2,133	(10.1)	5,868	(27.7)
TOTAL	23,453	(8.3)	53,533	(19.0)

The HFA advised that BreastScreen Midland did not send 1,120 screening records to NZHIS for inclusion in the national monitoring data set. We have been advised that BreastScreen Midland upgraded to a new database in September, 1999, and a data conversion process was run to transfer all information to the new system. At the time the data was sent to NZHIS for the July to September quarter, some of the records had not been transferred to the new system and were not available for the national monitoring data set used in this report. As a consequence, performance measures that are expressed as a percentage of women screened have not been calculated for BreastScreen Midland.

In this quarter, 296 women aged less than 50 years and 65 years or greater were screened and included in the national monitoring data set. Details by lead provider were 133 women from BreastScreen Auckland and North, 83 women from BreastScreen Midland, 9 women from BreastScreen Coast to Coast, 32 women from BreastScreen Central, 25 women from BreastScreen South, and 14 women from BreastScreen HealthCare. Screening of the majority of these women reflects a variation of policy agreed by the Health Funding Authority to include the first screening of women up to age 65 years and five months. These women have been excluded from the data for this report but will be summarised in the annual report of BSAIMG.

In each three-month quarter, based on a target of 70% coverage per screening round, lead providers would need to screen, on average, just under 9% of eligible women. In the quarter 1.7.99 to 30.9.99 only three lead providers achieved this rate of screening.

For the nine months to September 30, 1999, the target of just under 9% coverage represents about 26% of eligible women. BreastScreen Auckland and North had the lowest screening coverage and BreastScreen HealthCare the highest screening coverage to the end of September, 1999. BreastScreen HealthCare would be expected to achieve target coverage as it is an established ex-pilot area which achieved appropriate coverage during the time of the pilot.

The cumulative coverage rate is a less reliable result due to the different dates lead providers commenced screening, particularly in sub-contractor sites and mobile units.

Where lead providers are unable to meet the target needed in each quarter, either slippage in the two-yearly screening interval or lower coverage than the target may occur reducing the effectiveness of the screening programme. Population based breast cancer screening aims to have appropriate coverage of target group to reduce mortality from breast cancer in that group. Consistent levels of screening throughout the two-year period are important to avoid the occurrence of excessive service demands at the end of the two year screening round, when reinvitation within 24 months of previously screened women and new participants to the programme are recruited.

Achieving 70% coverage by the end of the two-year screening cycle is equivalent to 26.25% coverage over 9 months. Since the launch of the programme 19% coverage overall has been achieved. To achieve 70% coverage requires the deficit of 7.25% to be made up over the following five quarters, that is, the 15 months from the end of September 1999. However, several lead providers did not commence screening at the beginning of 1999. The projected coverage two-years after the start of screening for each lead provider will be provided in the annual report of BSAIMG.

## 1.4 Coverage - by age group

The number of women screened and coverage for the 50-54, 55-59 and 60-64 year age groups are shown by lead provider in Table 1.4.

Table 1.4. Age specific number of women screened and per cent coverage by lead provider.

Lead provider	Quarterly number screened (% of projected population)			Cumulative number screened (% of projected population)		
	50-54	55-59	60-64	50-54	55-59	60-64
ABS	3,050 (7.5)	2,419 (7.8)	1,880 (7.8)	6,155 (15.1)	4,744 (15.3)	4,055 (16.8)
HWL	806 (4.5)	1,063 (7.3)	1,017 (8.1)	2,234 (12.5)	2,344 (16.0)	2,612 (20.8)
MCH	1,567 (10.1)	1,342 (10.9)	1,128 (10.5)	3,125 (20.1)	2,649 (21.5)	2,404 (22.4)
HVH	972 (7.4)	788 (8.0)	576 (7.3)	2,310 (17.5)	2,013 (20.4)	1,511 (19.2)
BSS	1,948 (9.3)	1,501 (9.4)	1,263 (9.3)	4,698 (22.3)	3,641 (22.8)	3,170 (23.5)
HCO	915 (10.5)	716 (10.7)	502 (5.7)	2,244 (25.9)	2,011 (30.1)	1,613 (27.9)
TOTAL	9,258 (7.9)	7,829 (8.7)	6,366 (8.5)	20,766 (17.7)	17,402 (19.3)	15,365 (20.6)

From the national monitoring data set, slightly greater coverage of older women compared to younger women continues. This is most pronounced for BreastScreen Midland which appeared to have relatively low coverage for the 50-54 year age group in this quarter. This may be due to some screening records not being available for this report. Alternatively, it may be associated with the method of identifying women particularly if the invitation processes are reliant on outdated electoral roll data which was utilised for identifying women in the ex-pilot area. From the data provided, BreastScreen HealthCare had relatively low coverage of women aged 60-64 years in the quarter.

## 1.5 Coverage - ethnicity

Up to September 30, 1999, ethnicity was recorded for 94.1% of women screened. Overall for those records for which ethnicity was recorded 5.5% of women screened were Maori, 5.7% were Pacific women and 8.1% other ethnicity.

There were 1,391 screening records in this quarter for which no specific ethnic group was recorded. This was 5.9% of screening records for the quarter. Whilst it is recognised that not all women will wish to state their ethnicity, accurate and complete data for ethnicity is required so that the monitoring group can calculate registration and coverage rates by ethnic group. In this quarter the numbers of women for whom ethnicity was not specified were 238 from BreastScreen Auckland and North, 69 from BreastScreen Midland, 272 from BreastScreen Coast to Coast, 129 from BreastScreen Central, 611 from BreastScreen South and 72 from BreastScreen HealthCare.

The cumulative number of screening records for which no specific ethnicity is recorded was 3,629. This was 6.85% of all women screened. These women have been included in the “other” category of Table 1.5.

The number of women screened and coverage by ethnicity is shown by lead provider in Table 1.5.

Table 1.5. Overall number of women screened and per cent coverage by ethnic group.

Lead provider	Quarterly number screened (% of projected population)			Cumulative number screened (% of projected population)		
	Maori	PI	Other	Maori	PI	Other
ABS	424 (5.2)	298 (4.9)	6,627 (8.1)	734 (9.0)	612 (10.1)	13,608 (16.5)
HWL	340 (5.2)	70 (16.2)	2,476 (6.5)	541 (8.3)	88 (20.3)	6,561 (17.1)
MCH	373 (7.7)	26 (8.9)	3,638 (10.9)	459 (9.5)	39 (13.3)	7,680 (23.1)
HVH	92 (3.8)	62 (4.7)	2,182 (7.8)	203 (9.5)	97 (7.3)	5,534 (19.9)
BSS	70 (3.8)	23 (7.1)	4,619 (9.6)	144 (7.7)	47 (14.5)	11,318 (23.4)
HCO	32 (3.7)	9 (8.3)	2,092 (10.3)	72 (8.3)	18 (16.7)	5,778 (28.4)
TOTAL	1,331 (5.5)	488 (5.7)	21,634 (8.6)	2,153 (6.3)	901 (10.6)	50,479 (20.2)

NB Not stated ethnicity included in “other” category.

Coverage of the target population by ethnicity suggested lower overall coverage for some ethnic groups. This was particularly so for Maori and Pacific women. The quarterly coverage for Maori women ranged from a low of 3.7% by BreastScreen HealthCare to a high of 7.7% by BreastScreen Central. The range for the cumulative coverage for Maori was 7.7% by BreastScreen South to 9.5% by BreastScreen Central. A greater range of coverage existed for Pacific women with 4.9% coverage by BreastScreen Auckland and North to 16.2% achieved by BreastScreen Midland. The cumulative total achieved for Pacific women ranged from 7.3% by BreastScreen Central to 20.3% by BreastScreen Midland.

However, the lower screening of these groups of women may present a problem that BSAIMG and others have previously raised concerning BreastScreen Aotearoa identification and invitation processes. These variations in coverage by ethnicity may represent the timing of invitations for screening for specific localities. For example, mobile units may have not yet visited localities where Maori or Pacific women tend to reside.

If lower than expected coverage continues the national monitoring data set does not contain data which could assist in determining why lower coverage has occurred. For example, to determine if lower coverage is due to poor identification of women or women have been identified but declined to be screened. This inability to determine the different reasons for lower coverage will hinder the programme response to lower than expected coverage should it occur.

## 2. Provision of high quality screening and assessment

The recording of the type of screening unit used is specified in the Data Management Manual of the programme. By the end of this quarter all mobile screening units were commissioned.

The monitoring group were advised that BreastScreen HealthCare commenced screening as part of the national programme on the 12 January, 1999, for the fixed unit and 17 January, 1999, for the mobile unit but has 67 screening entries for December, 1998, in the national monitoring data set. These entries were inadvertently forwarded to NZHIS and the monitoring group. However, these records have been excluded from the data for this report.

Several important departures in the coding of data fields were noticed in the analysis for this report. BreastScreen Midland coded six screening sites in the national monitoring data set (field B04.03) when only two valid values, fixed site or mobile site, were possible. BreastScreen South coded only one screening site in the national monitoring data set (field B04.03) although the monitoring group were advised that they commenced screening at their mobile unit on the 4th August, 1999. This coding error has meant that it was not possible to calculate: the proportion of women having four films or less at screening, the technical recall rate, or the technical repeat rate (definitions one and two), separately for mobile and fixed sites for this lead provider.

### 2.1 Screened women who have no more than 4 films taken.

**Target** – a minimum of 80% of women screened have 4 films or less.

From the data available, the numbers of films per woman by lead provider, and for mobile versus fixed screening centres, are shown in Table 2.1. Unfortunately, the type of screening unit has not been adequately recorded in the data provided for BreastScreen South so screening information could not be calculated separately for fixed and mobile sites for this lead provider and is not given in the Tables 2.1, 2.2 and 2.3 below.

Table 2.1. Proportion of women having 4 films or less at screening by lead provider.

Lead Provider	Quarter (%)		Cumulative rate (%)	
	Fixed	Mobile	Fixed	Mobile
ABS	91.9	95.5	90.1	95.5
HWL*				
MCH	88.2	93.5	87.6	93.6
HVH	93.1	97.5	89.4	97.5
BSS**				
HCO	74.5	77.2	74.1	72.4
TOTAL	89.5	89.6	87.4	83.0

\* BreastScreen Midland records excluded (see section 1.3)

\*\* BreastScreen South records excluded (see section 2.1)

From the data available, BreastScreen HealthCare did not meet the target for the proportion of women screened who had four films or less at screening in this quarter. This appears also to have occurred during the pilot study in this area<sup>1</sup>. This lead provider is using a different film size than other lead providers and this may contribute to the difficulty in meeting the target.

Some lead providers have a large number of films taken for some women. Women with breast prostheses usually require many more than four films to be taken at screening. However, the majority of the records with 20 or more films recorded in the national monitoring data set are probably data entry errors. The number of instances where 20 or more films were recorded at screening in the data for this quarter were: 10 from BreastScreen Auckland and North, one from BreastScreen Coast to Coast, 20 from BreastScreen Central, 46 from BreastScreen South and 23 from BreastScreen HealthCare.

## 2.2 Technical recall rate

**Definition** – The number of women recalled for technical repeats as a percentage of the number screened.

**Target** - Mobile < 3%  
- Fixed < 0.5%

The number recalled for technical reasons as a percentage of number of women screened is shown in Table 2.2.

Table 2.2. Technical recall rates per 100 women screened (per cent) by lead provider.

Lead Provider	Quarter (%)		Cumulative rate (%)	
	Fixed	Mobile	Fixed	Mobile
ABS	0.1	0	0.1	0
HWL*				
MCH	0.5	6.5	0.3	6.5
HVH	0.5	0	0.7	0
BSS**				
HCO	0.5	0	0.2	0.1
TOTAL	0.3	2.1	0.3	1.5

\* BreastScreen Midland records excluded (see section 1.3)

\*\* BreastScreen South records excluded (see section 2.1).

In this quarter only one of four lead providers have recalled women to mobile screening units but all four lead providers recalled women to fixed units. This is an unexpected result as it is more common for women to be recalled to a mobile than a fixed screening site as films are usually developed whilst the woman waits at a fixed site. Also, at the commencement of screening on a mobile unit a higher recall rate would usually be expected. The Waikato pilot overall result for technical recalls for round one was 6.2% for the mobile screening unit <sup>2</sup>. In round two it was reduced to 5.6% <sup>2</sup>. The Otago first round report indicated that data concerning both technical repeats and recalls was inadequate and that there appeared to be some confusion in the recording of both targets <sup>1</sup>.

Values of zero for technical recall rates per 100 women for mobile units may be due to errors in data entry. The entry of the data in the relevant section of the national monitoring data set for this measure of performance requires validation.

Lead provider BreastScreen Coast to Coast continues to have a higher technical recall rate (6.5%) for their mobile unit than the performance target.

## 2.3 Technical repeat rate

### 2.3.1 Technical repeat rate – definition 1

**Definition 1 (from the Data Management Manual)** – Number of women with technical repeats (including technical recalls) as a percentage of number screened.

**Target** - < 3%

The technical repeat rate (per cent) as defined by the Data Management Manual for the four lead providers is shown in Table 2.3.1.

Table 2.3.1 Technical repeat rate – definition 1

Lead Provider	Quarterly technical repeat rate (%)		Cumulative technical repeat rate (%)	
	Fixed	Mobile	Fixed	Mobile
ABS	0.1	0	0.1	0
HWL*				
MCH	0.5	6.5	0.3	6.5
HVH	0.5	0	0.7	0
BSS**				
HCO	0.5	0	0.2	0.1
TOTAL	0.3	2.1	0.3	1.5

\* BreastScreen Midland records excluded (see section 1.3)

\*\* BreastScreen South records excluded (see section 2.1).

### 2.3.2 Technical repeat rate – definition 2

**Definition 2** - Number of technical repeat films as a percentage of the total number of films taken.

**Target** - < 3%

The technical repeat rate (per cent) as defined by the monitoring group (definition 2) is shown in Table 2.3.2.

Table 2.3.2. Technical repeat rate per 100 films taken by lead provider.

Lead Provider	Quarterly technical repeat rate		Cumulative technical repeat rate	
	Fixed	Mobile	Fixed	Mobile
ABS	0.9	0.1	1.4	0.1
HWL*				
MCH	1.0	0.2	1.4	0.2
HVH	1.5	0.3	2.2	0.3
BSS**				
HCO	1.0	0.1	1.1	0.1
TOTAL	1.0	0.2	1.7	0.2

\* BreastScreen Midland records excluded (see section 1.3)

\*\* BreastScreen Midland records excluded

From the data provided, the four lead providers appear to have easily met the target for the technical repeat rate of less than three per 100 films taken. The rates are considerably lower than the target and suggests, either that the target has been set high, or the relevant data is not accurately recorded in the national monitoring data set. The data entered in the relevant fields in the national monitoring data set for this performance measure requires validation.

## 2.4 Assessment rate

**Definition** - Number referred to assessment as a percentage of number screened.

**Target** – prevalence screen: maximum target is < 10% and the expected target is < 7%  
incidence screen: maximum target is < 5% and the expected target is < 4%

Five measures of performance, the referral to assessment rate, the false positive rate, sensitivity, specificity and cancer detection rate, are related to one another. A high referral to assessment rate is often associated with a high false positive rate and lowered specificity and involves considerable numbers of women while detecting few new cancers if the specificity is high. Alternatively, a low referral to assessment rate may result in a significant number of detectable breast cancers being missed. The relationship of the five measures of performance is taken into account in the setting of the respective targets. A high quality service should be able to meet the targets for all of these measures.

Women with positive screening tests are referred for assessment. The number referred is determined by the underlying prevalence of breast cancer in the population and by the sensitivity and specificity of the screening test. Also, referral to assessment would be high if symptomatic women were being screened in the programme.

The national monitoring data set records for BreastScreen Midland have been excluded due to 311 entries for which an invalid value (0), for the final decision by the radiologist, has been recorded in the data set (field B07.03). On random checking of 23 entries it was found that only one woman appeared to have two screening episodes and this woman did have a technical recall but an invalid value for the decision of the radiologist was entered. None of the 23 women had a completed assessment result recorded.

BreastScreen South in the cumulative record of the national monitoring data set have a void entry for two women for the decision by the radiologist (field B07.03).

The rates of referral to assessment are shown in Table 2.4 below.

Table 2.4. The rate of referral to assessment per 100 women screened by lead provider.

Lead Provider	Quarterly assessment rate (%)	Cumulative assessment rate (%)
ABS	12.0 (884)	9.4 (1404)
HWL*		
MCH	5.8 (232)	4.8 (394)
HVH	6.6 (154)	5.9 (344)
BSS	6.7 (315)	5.9 (677)
HCO	8.4 (179)	7.9 (464)
TOTAL	8.6 (1764)	7.1 (3283)

\* BreastScreen Midland records excluded (see section 1.3)

The rates of referral to assessment for women will vary according to whether it is their first or subsequent screen. Rates of referral to assessment are higher in the prevalence round (the first screen) than in the incidence rounds (subsequent screens). However, the recording by lead providers of the data identifying the screening episode remains inconsistent. Therefore, rates of referral to assessment are shown by lead provider, but not by incidence or prevalence round.

From the data available, BreastScreen HealthCare, a pilot study area which is expected to be mainly carrying out incidence screens, had a rate of referral to assessment of 8.4% in this quarter, up from 7.7% for the first six months of the programme. This appears high considering this lead provider will be mainly screening women who have already been screened before and exceeds the maximum assessment rate target of less than 5% for incidence screens. This continues the relatively high rate of referral for assessment experienced in the pilot study in this area. BreastScreen Auckland and North had a rate of referral for assessment greater than the maximum target and considerably more than the expected target of 7%. The monitoring group recommends that BreastScreen HealthCare which also experienced low specificity and BreastScreen Auckland and North examine their referral to assessment protocols to reduce the rate of referral to assessment.

## **2.5 Assessment records of the national monitoring data set**

As indicated in the first report, assessment records of the national monitoring data set continue to be incomplete. Many records of the national monitoring data set do not have a date of first level assessment or outcome of assessment. This severely limits monitoring of this vital aspect of the quality of the programme against the targets set.

### ***2.5.1 Outstanding assessment records for women screened up to 30<sup>th</sup> June 1999.***

In the first monitoring report 394 women referred to assessment had no assessment entries. On receiving the national monitoring data set for this report a check was made of outstanding records from previous months. The number of incomplete assessment records of the national monitoring data set for each lead provider by month of screening are given in Table 2.5.1 to Table 2.5.6 below.

Of the 394 outstanding records to 30 June, 1999, 257 (65.2%) remained outstanding on 30 September, 1999. Some of these outstanding records dated back to January 1999.

Table 2.5.1. Outstanding assessments for women screened in January, 1999.

Lead provider	Number outstanding as at 30 June, 1999	Updated number outstanding as at 30 September, 1999
ABS	1	1
HWL	6	0
HCO	10	10
Total	17	11

Table 2.5.2. Outstanding assessments for women screened in February, 1999.

Lead provider	Number outstanding as at 30 June, 1999	Updated number outstanding as at 30 September, 1999
ABS	5	5
HWL	5	0
HVH	1	1
BSS	1	0
HCO	19	17
Total	31	23

Table 2.5.3. Outstanding assessments for women screened in March, 1999.

Lead provider	Number outstanding as at 30 June, 1999	Updated number outstanding as at 30 September, 1999
ABS	5	4
HWL	2	0
HVH	4	0
BSS	2	1
HCO	12	8
Total	25	13

Table 2.5.4. Outstanding assessments for women screened in April, 1999.

Lead provider	Number outstanding as at 30 June, 1999	Updated number outstanding as at 30 September, 1999
ABS	5	4
HWL	8	6
MCH	1	0
HVH	2	2
HCO	2	1
Total	18	13

Table 2.5.5. Outstanding assessments for women screened in May, 1999.

Lead provider	Number outstanding as at 30 June, 1999	Updated number outstanding as at 30 September, 1999
ABS	66	65
HWL	21	19
MCH	3	0
HVH	3	2
BSS	3	0
HCO	6	3
Total	102	89

Table 2.5.6. Outstanding assessments for women screened in June, 1999.

Lead provider	Number outstanding as at 30 June, 1999	Updated number outstanding as at 30 September, 1999
ABS	76	76
HWL	22	20
MCH	18	0
HVH	14	11
BSS	33	1
HCO	38	0
Total	201	108

### ***2.5.2 Outstanding assessment records for women screened to September 30<sup>th</sup> 1999***

Outstanding assessment records for the period 1 July – 30 September, 1999, are recorded in Tables 2.5.7, 2.5.8 and 2.5.9.

The HFA advised that 246 assessment records from BreastScreen Auckland and North were rejected from the national monitoring data set because they failed NZHIS validation checks. This was due to the date of notification of assessment results being entered into field (B18.06). Therefore, these records were combined with other assessment records for which no outcome of assessment was recorded and resulted in 70.6% of the assessment records for this lead provider having no outcome of assessment entered in the national monitoring indicator set for the quarter. As a consequence, BSAIMG have been unable to report on assessment performance indicators for this lead provider.

Table 2.5.7 Outstanding assessments for women screened in July, 1999.

Lead provider	Number referred in July 1999	Number outstanding for July 1999 at September, 1999	Percentage outstanding for July 1999 at September, 1999
ABS*			
HWL*			
MCH	55	0	0
HVH	54	1	1.9
BSS	89	1	1.1
HCO	70	1	1.4
Total	268	3	1.1

\* BreastScreen Auckland and North and BreastScreen Midland's records excluded

Table 2.5.8 Outstanding assessments for women screened in August, 1999.

Lead provider	Number referred in August 1999	Number outstanding for August 1999 at September, 1999	Percentage outstanding for August 1999 at September, 1999
ABS*			
HWL*			
MCH	85	5	5.9
HVH	45	0	0
BSS	94	8	8.5
HCO	58	2	3.5
Total	282	15	5.3

\*BreastScreen Auckland and North and BreastScreen Midland's records excluded

Table 2.5.9 Outstanding assessments for women screened in September, 1999.

Lead provider	Number referred in September 1999	Number outstanding for September 1999 at 30 September, 1999	Percentage outstanding for September 1999 at 30 September, 1999
ABS*			
HWL*			
MCH	92	47	51.1
HVH	55	5	9.1
BSS	132	77	58.3
HCO	51	10	19.6
Total	330	139	42.1

\*BreastScreen Auckland and North and BreastScreen Midland's records excluded

Of the 880 women referred to assessment for the quarter July to September, 1999, 157 (42.1%) records do not have a complete assessment recorded in national monitoring data set.

In the first monitoring report several tables recording measures of the quality of assessment for women referred for assessment were not provided due to the number of incomplete records. In this report a summary of the degree of incompleteness of these records is provided. The degree of assessment result incompleteness for this quarter is shown for each lead provider in Table 2.5.10. This is a summary of monthly totals recorded in Tables 2.5.7 to 2.5.9 above.

Table 2.5.10. Summary of the number of women referred to assessment in this quarter for which no outcome of assessment is recorded in national monitoring data set.

Lead provider	Number of women referred to assessment	Number of women referred to assessment with no outcome of assessment recorded	Percentage of women referred to assessment with no outcome of assessment recorded	Number of women known to have exited lead provider assessment before result known
ABS*				
HWL*				
MCH	232	52	22.4	0
HVH	154	6	3.9	4
BSS	315	86	27.3	2
HCO	179	13	7.3	0
Totals	880	157	17.8	6

\* BreastScreen Auckland and North and BreastScreen Midland records excluded (see section 1.3)

The number of incomplete assessment records is sufficiently high for some lead providers that performance measures for the assessment process can not be measured with accuracy. For tables that measure the assessment process only results for providers that have more than 90% of assessment records with an assessment result are shown. While not ideal, the measures of performance of the assessment process in these circumstances should provide some indication of performance for these lead providers. Provision of figures where this is not the case could be misleading and could not be considered to indicate the performance of the assessment process.

The cumulative per cent of incomplete assessment records, excluding BreastScreen Auckland and North and BreastScreen Midland, is shown in Table 2.5.11.

Table 2.5.11. The cumulative percentage and number (n) of assessment records where the outcome of assessment is not recorded in the national monitoring data set by lead provider.

Lead provider	Percentage of assessment records with no assessment result recorded (n)	Percentage of women screened with no assessment result recorded	Number of women exited lead provider assessment before result known
ABS*			
HWL*			
MCH	13.2 (52)	0.6	0
HVH	6.4 (22)	0.4	4
BSS	13.0 (88)	0.8	2
HCO	11.2 (52)	0.9	0
TOTAL	11.4 (214)	0.7	6

\* BreastScreen Auckland and North and BreastScreen Midland records excluded (see section 1.0 and 1.3)

## 2.6 False positive rate

**Definition** - Number with false positive screening results as a percentage of number screened.

**Target** - prevalence round: minimum target is < 9% and the expected target is < 6%  
 - incidence round: minimum target is < 4% and the expected target is < 3%

The false positive rate was not reported in the first monitoring report because of the incompleteness of the data. For this report what limited data is available is reported in Table 2.6.

Table 2.6. False positive rate per 100 women screened by lead provider.

Lead Provider	Quarterly false positive rate	Cumulative false positive rate
ABS**		
HWL*		
MCH**		
HVH	5.4	4.8
BSS**		
HCO	7.1	6.5
TOTAL†	6.2	5.7

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had a completed assessment result recorded. Therefore, it is not clear whether this performance measure of BreastScreen Aotearoa as expressed by the total for the two lead providers in Table 2.6 above is an accurate estimate for the programme.

From the data provided, two providers have met the target for reporting the false positive rate per 100 women screened (Table 2.6). BreastScreen HealthCare which is predominantly conducting incident screening had a higher than expected false positive rate for this quarter and overall. This is consistent with the relatively low specificity experienced by this lead provider (Table 2.10).

## 2.7 Open surgical biopsy rate

**Definition** - Number of women having open biopsy as a percentage of women screened.

**Target** - < 1%

Table 2.7 reports the rate of surgical biopsy per 100 women screened.

Table 2.7. Rate of open surgical biopsy per 100 women screened and numbers of women by lead provider.

Lead Provider	Quarterly open surgical biopsy rate (numbers of women)	Cumulative open surgical biopsy rate (numbers of women)
ABS**		
HWL*		
MCH**		
HVH	0.3 (7)	0.2 (12)
BSS**		
HCO	0.9 (20)	0.7 (43)
TOTAL†	0.6 (27)	0.5 (55)

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had a completed assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate for the programme overall as information for only two lead providers was useful.

From the data available both BreastScreen Central and BreastScreen HealthCare have met this target.

## 2.8 Benign biopsy weight

**Definition** - Number with benign open biopsy where weight of benign lesion is less than 20 grams as a percentage of number with benign open biopsy.

**Target** - 80% of open biopsies (benign result) should weigh < 20g.

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had a completed assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate for the programme overall. For this report what limited data is available is shown in Table 2.8.

Table 2.8. Per cent of open benign biopsies weighing < 20g per 100 women screened and numbers of women by lead provider.

Lead Provider	Quarterly per cent of open benign biopsies weighing < 20g	Cumulative per cent of open benign biopsies weighing < 20g
ABS**		
HWL*		
MCH**		
HVH	25.0 (1)	33.0 (3)
BSS**		
HCO	80.0 (12)	88.0 (29)
TOTAL†	68.4 (13)	76.2 (32)

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Some specimen weights recorded in the national monitoring data set were very small. For example, in this quarter four specimens were recorded as less than or equal to 5 grams. Overall, in the cumulative record, thirteen specimens were recorded with a weight of less than or equal to 5 grams. BreastScreen Midland had no benign biopsies recorded for this quarter. BreastScreen Coast to Coast had only one benign biopsy recorded. BreastScreen Central had seven recorded of which only four were recorded as benign.

Currently, to establish whether the biopsy was benign from the national monitoring data set, the field B18.07 is used. This field records the final diagnosis, which is not a pathology result for the biopsy. This may not accurately measure this performance indicator if a biopsy was benign and the final diagnosis was cancer. The monitoring group recommends that, in future, the date, type, specimen weight and result of biopsy is captured by the national monitoring data set.

## 2.9 Needle biopsy rates

**Definition** - Number of women undergoing fine needle aspiration (FNA) as a percentage of number screened.

- Number of women undergoing core biopsy as a percentage of number screened.

**Target** - None set.

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had a completed assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate for the programme overall. For this report the rate of needle biopsy per 100 women screened is shown in Table 2.9.

Table 2.9. Rate of needle biopsy per 100 women screened and numbers of women undergoing needle biopsy (n) by lead provider.

Lead Provider	Quarterly			Cumulative		
	FNA % (n)	Core Needle % (n)	Both†† % (n)	FNA % (n)	Core Needle % (n)	Both†† % (n)
ABS**						
HWL*						
MCH**						
HVH	0.3 (6)	1.0 (24)	1.1 (25)	0.3 (15)	0.6 (36)	1.5 (86)
BSS**						
HCO	0.3 (6)	0.8 (18)	0.1 (1)	0.5 (31)	0.6 (35)	0.03 (2)
TOTAL†	0.3 (12)	0.9 (42)	0.6 (26)	0.4 (46)	0.6 (71)	0.8 (88)

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

†† Women who have both FNA and core needle procedures

There was a considerable difference between BreastScreen Central and BreastScreen HealthCare in the percentage of women screened who had both FNA and core needle biopsy resulting in a greater number of women undergoing needle biopsy through BreastScreen Central than BreastScreen HealthCare.

## 2.10 Specificity of the Programme

**Definition** - Number with true negative screening results as a percentage of this number plus the number with false positive screening results.

**Target** - > 93%

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had a completed assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate for the programme overall. For this report, what limited data is available is shown in Table 2.10.

Because the result of a number of assessment records is unknown the specificity is given as a range in Table 2.10 within which the approximate specificity lies.

Table 2.10. Specificity of the programme by lead provider.

Lead Provider	Quarterly specificity range (%)	Cumulative specificity range (%)
ABS**		
HWL*		
MCH**		
HVH	94.3 - 94.5	94.7 - 95.1
BSS**		
HCO	92.2 - 92.8	92.6 - 93.4
TOTAL†	93.3 - 93.7	93.6 - 94.3

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Of the two lead providers for which specificity could be estimated, the specificity calculated was lowest for BreastScreen HealthCare. This is probably associated with the protocol for referral for assessment (see section 2.5).

### 3. Early detection of breast cancer

#### 3.1 Cancer detection rate

**Definition** - Number with diagnosed breast cancer per 1000 women screened.

**Target** - prevalence round: target is  $\geq 6$  per 1000 women screened  
 - incidence round: target is  $\geq 3$  per 1000 women screened

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had a completed assessment result. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate of the programme overall. For this report, what limited data is available is shown in Table 3.1.

Table 3.1. Cancer detection rate by lead provider per 1000 women screened and the number of women with cancer detected.

Lead Provider	Quarterly cancer detection rate (number with cancer detected)	Cumulative cancer detection rate (number with cancer detected)
ABS**		
HWL*		
MCH**		
HVH	7.7 (18)	5.7 (33)
BSS**		
HCO	6.6 (14)	5.1 (30)
TOTAL†	7.2 (32)	5.4 (63)

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Both lead providers for whom cancer detection rates could be measured with sufficient accuracy from the national monitoring data set met the target for the cancer detection rate in this quarter. BreastScreen Central had a slightly lower than target cumulative result. It is not possible to gauge how many women entering BreastScreen Aotearoa have been screened in the private sector prior to joining the national programme. This could lower the cancer detection rate in the first round of screening.

#### **4. Summary of treatment**

Due to delays in the finalising a national treatment data set and related collection of treatment data, treatment data was not received by the monitoring group. Therefore, this section has not been completed in this report.

The Health Funding Authority is currently collecting the treatment data for each lead provider and also ensuring that processes are in place for the ongoing collection of this data.

## 5. Provision of an appropriate and acceptable service

### 5.1 Time taken providing results of screening

**Definition** - Date of providing results to women minus date of final screening visit.

**Target** - 95% notified within 10 working days.

From the national monitoring data set provided by NZHIS the time taken to provide the results of screening to women for each lead provider is shown in Table 5.1.

Table 5.1. Time taken to provide results of screening to women for each lead provider.

Lead Provider	Quarterly % notified within 10 working days (numbers of women)	Cumulative % notified within 10 working days (numbers of women)
ABS	97.8 (7,185)	97.8 (14,618)
HWL*		
MCH	99.1 (4,001)	99.4 (8,125)
HVH	99.7 (2,329)	97.8 (5,707)
BSS	98.3 (4,634)	98.4 (11,321)
HCO	79.2 (1,689)	92.5 (5,426)
TOTAL	96.5 (19,838)	97.5 (45,197)

\* BreastScreen Midland records excluded (see section 1.3)

The records of the national monitoring data set for BreastScreen Midland in this quarter were not available. The first monitoring report indicated that this lead provider did not meet the target for the first six months of screening in the programme. From the data available, BreastScreen HealthCare has not met the target of 95% for the timely notification of results to women. This lead provider appears to have been able to notify only 79.2% of women of their result within 10 working days in this quarter.

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

**Definition** - Date of first available appointment offered for assessment minus date of final screening visit.

**Target** – At least 90% of women offered an assessment appointment within 14 working days of their final screening mammogram.

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had an assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate of the programme overall. The time taken from screening visit to first assessment appointment for women of each lead provider calculated from the data received is shown in Table 5.2.

Table 5.2. Time taken from screening visit to first offer of an assessment appointment for the women screened by each lead provider.

Lead Provider	Quarterly % offered assessment within 14 working days (numbers of women)	Cumulative % offered assessment within 14 working days (numbers of women)
ABS** HWL* MCH** HVH BSS** HCO	96.6 (148)	92.5 (318)
TOTAL†	57.0 (314)	69.4 (60.0)

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Of the 1,764 women referred to assessment for this quarter, 781 records were not included in the national monitoring data set. Therefore, as in the first monitoring report, the monitoring group has been unable to measure the timeliness of assessment appointments for 44% of the women referred to assessment. One of the two lead providers for whom sufficient data is available met the target of at least 90% of women receiving timely notification of their result. BreastScreen HealthCare continued to be well below this performance target. This may be a reflection of the relatively high rate of referral to assessment of this lead provider. (refer section 2.4) This could be overloading assessment services. Review of BreastScreen HealthCare's referral to assessment protocol may reduce the number of women referred to assessment and result in a timelier offer of assessment for women.

### 5.3 Time taken from assessment to final diagnostic biopsy.

#### Definition

Date of needle biopsy minus date of first level assessment.

Date first offered open surgical biopsy minus date of first level assessment.

#### Target

At least 90% of women requiring needle biopsy procedure have that procedure completed within 7 days of their assessment.

At least 90% of women requiring open biopsy procedure are offered that procedure within 3 weeks of their assessment.

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had an assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate for the programme overall. For this report, what limited data is available is shown in Table 5.3.

Table 5.3. Percentage and numbers of women (n) receiving biopsy within 7 days for needle biopsy and 3 weeks for open biopsy.

Lead Provider	Quarterly per cent		Cumulative per cent	
	Percentage for which needle biopsy completed within 7 days of assessment (n)	Percentage for which open biopsy offered within 3 weeks of assessment (n)	Percentage for which needle biopsy completed within 7 days of assessment (n)	Percentage for which open biopsy offered within 3 weeks of assessment (n)
ABS**				
HWL*				
MCH**				
HVH	96.4 (53)	42.9 (3)	96.4 (132)	31.3 (5)
BSS**				
HCO	100.00 (25)	75.0 (15)	98.5 (67)	83.7 (36)
TOTAL†	97.5 (78)	66.7 (18)	97.1 (199)	69.5 (41)

\* BreastScreen Midland records excluded, no open biopsy recorded for the quarter

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

Neither of the two lead providers tabulated were able to achieve the target of offering 90% of women an open biopsy procedure within three weeks of their assessment. This is reflected in both the quarterly and cumulative result.

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

**Definition** - Date of reporting final biopsy results to woman minus date of final diagnostic biopsy.

**Target** - Results reported to at least 90% of women within 7 days of final diagnostic biopsy.

Data is only available for the assessment records of the national monitoring data set received from NZHIS. Only 56% of assessment records had an assessment result recorded. Therefore, it is not clear whether this measure of performance of BreastScreen Aotearoa is an accurate estimate of the programme overall. For this report, what limited data is available is shown in Table 5.4.

Table 5.4. Time taken from final diagnostic biopsy to reporting assessment results to women for each lead provider.

Lead Provider	Quarterly % reported within 7 days (numbers of women)	Cumulative % reported within 7 days (numbers of women)
ABS** HWL* MCH** HVH BSS** HCO	80.0 (44)	82.5 (113)
TOTAL†	81.6 (80)	65.4 (157)

\* BreastScreen Midland records excluded

\*\* Less than 90% of assessment records were complete

† HVH and HCO combined

From the limited data available, neither of the two lead providers for whom sufficient data is available managed to meet this target.

### 5.5 Time taken from reporting assessment results to first date offered for primary treatment.

**Definition** - Date first offered primary treatment minus date of reporting final biopsy results to woman.

**Target** – At least 90% of women offered primary treatment within 3 weeks of the final diagnosis being reported to the woman.

As treatment data is not yet recorded as part of the national monitoring data set this target cannot be measured. Table 5.5 has been left blank.

Table 5.5. Time from reporting assessment results to first date offered primary treatment for women of each lead provider.

Lead Provider	Quarterly % women offered primary treatment within 3 weeks	Cumulative % women offered primary treatment within 3 weeks
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

## References

1. Smale P., Elwood M., and Bandaranayake M. & McNoe, B. (1996). *Evaluation of the Otago-Southland Pilot Breast Cancer Screening Programme. Report on the First Round of Screening (1991-1994)*. Hugh Adam Cancer Epidemiology Unit. Department of Preventive and Social Medicine, University of Otago.
2. Chapman P. & Brown T. (1997). *Evaluation of the Waikato Pilot Breast Cancer Screening Programme. Report on the Second Round of Screening*. Health Waikato Ltd.