

**BreastScreen Aotearoa**  
**MONITORING REPORT No. 1:**

**Women screened  
between January 1 and June 30, 1999**

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

**2 February 2000**

Technical Report No. 21  
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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. The monitoring group can also recommend to the Health Funding Authority additional monitoring and evaluation that it considers to be required.

The first draft of this report was written in November 1999 by Dr Brian Cox, Dr Ann Richardson and Ms Thelma Brown for the monitoring group. After revision through the process specified in Section 3.0 of the appendix the final version was sent to the Health Funding Authority on February 2, 2000.

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## **Executive Summary and Recommendations**

Screening for BreastScreen Aotearoa began on December 1, 1998, and the programme was officially launched on December 10, 1998. This first monitoring report of BreastScreen Aotearoa reports results for 27,881 women screened from 1 January to 30 June 1999 whose lead provider records passed the validation checks of the National Health Information Service (NZHIS) of the Ministry of Health. Different lead providers and their subcontractor's commenced screening on different dates therefore it is difficult to directly compare some results over the first six months of the programme.

Although the HFA accredited the information systems of lead providers before they commenced screening, considerable difficulties in the capture of appropriate data for monitoring purposes have been encountered some of which have been able to be resolved. Attempts to resolve issues as they arise continue to be made. For a variety of reasons problems with information systems are common at the beginning of screening programmes but successful resolution of these problems is required to provide appropriate security for women in the screening process.

BSAIMG is concerned about the lack of information and data available to monitor the very important issue of identification and invitation of women in BreastScreen Aotearoa. 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 49,377 women would expect to be screened in a six-monthly period. The number screened from January 1, 1999 was about 57% of the expected number. It is estimated that about 2,000 records for the period were rejected by NZHIS because they failed validation checks.

In six months screening, based on a target of 70% coverage, lead providers would be expected to have screened 17.5% of eligible women. Only one lead provider achieved this. The programme took some time to implement so lower screening rates were anticipated. However, the screening rates calculated for some lead providers appear very low. From the data available, most lead providers will need to achieve significantly greater screening rates from July 1, 1999, onwards if they are to screen at least 70% of eligible women in a two-yearly interval. Unless most lead providers increase their screening rate, slippage in the two-yearly screening interval may occur reducing the effectiveness of the screening programme. Slightly greater coverage of older women compared to younger women appears to have been achieved in the first six months of the programme.

Three lead providers appear not to have met the target of at least 80% of women having four or fewer films at their fixed sites. Also, one lead provider appears not to have met the target of at least 80% at its mobile site with 69.5% of women having four or fewer films. One lead provider did not appear to have met the target of less than 0.5% for the technical recall rate for a fixed unit. From the data supplied another lead provider appeared to have no technical recalls, which seems unlikely, and this may be the result of a systematic recording error. From the data provided, all lead providers appear to have met the target of less than 3% for the technical repeat rate per 100 films taken.

From the data available, one lead provider from a pilot study area, which is expected to be mainly carrying out incidence screens, had an assessment rate of 7.7%. This is high and

exceeds the minimum assessment rate target of less than 5% for incidence screens. This referral rate to assessment is a continuation of this pilot programme's result. The other lead provider in a pilot study area met both the minimum target of less than 5% and the expected target of less than 4%. All other lead providers appear to have met the expected assessment rate targets for prevalence screening during the six-month period.

The monitoring group received data for assessment episodes of some, but not all, women referred for assessment. There were 1,585 women referred for assessment up to June 30, 1999, though the monitoring group only received completed assessment records (where the outcome is known) for 1,193 women. It is not clear from the data available whether this represents delays in diagnosis or delays in data entry for the other 392 women as assessment records are not entered or sent to NZHIS until the assessment process is completed.

From the data provided the monitoring group can not determine the outcome for 25% of the women who were referred for assessment. Therefore, no attempt has been made to report the specificity, false positive rate, cancer detection rate, or invasive cancer rate since no information was available about how many of the 392 women for whom assessment records were incomplete had been diagnosed with breast cancer.

From the data provided only 55 women were recorded as having open surgical biopsy performed. This represents 1.7 per 1,000 women screened (0.17 per cent) which is low. Further assessment of the data is required to determine whether problems with data entry or analysis can account for the low rate.

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

From the data available, one lead provider appears not to have met the target of 95% for the timely notification of results to women. This lead provider appears to have been able to notify only 73.9% of women of their result within 10 working days.

Only 872 women of 1,585 referred to assessment had a date of first level assessment recorded. Therefore, the monitoring group has been unable to measure the timeliness of assessment appointments for 45% of women referred to assessment. For women with complete records, only two lead providers met the target of at least 90%, and a third lead provider was close, at 89.1%.

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 (UK Trial of Early Detection of Breast Cancer Group; Hakama *et al* 1997; Fracheboud *et al* 1998; Shapiro 1992; National Evaluation Team of Breast Cancer Screening 1995; Blanks & Moss 1996). Further assessment of the data by the monitoring group may result in revision of some of the results provided in this report. It may also determine whether problems with data entry, processing or analysis may explain some of the results obtained.

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## **Introduction**

International experience suggests that information systems for the monitoring of breast screening programmes are difficult to establish and maintain at the level required to provide appropriate security for women in the screening process. The monitoring group understands that problems have been encountered in the establishment of the three separate data information systems being used to record the screening information of women. Despite these difficulties a limited amount of performance monitoring has been able to be produced for this report. However, 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. As a result screening has continued for almost a year with little performance monitoring being completed.

Data for monitoring BreastScreen Aotearoa is received from lead providers by the National Health Information Service (NZHIS) of the Ministry of Health. After numerous validation checks of the data have been made by the NZHIS, non-identifiable and validated individual records for women registered with the programme up to a specified time are forwarded to the monitoring group for analysis and the production of quarterly and annual reports to the Health Funding Authority. Due to delays in obtaining the routine monitoring data for this, the first, monitoring report of the monitoring group covers the first six-month period of 1999. Therefore, the report pertains to women screened from January 1 to June 30, 1999.

The first data available to the monitoring group were received on October 18, 1999, and this has been used for this report. The monitoring group was requested by Health Funding Authority to use this data where possible for the production of this report. Therefore, some anomalies in the data detected by the NZHIS and the monitoring group were not able to be resolved prior to the preparation of this report. Some of these anomalies have been sufficient to prevent the calculation of accurate performance measures for many important aspects of BreastScreen Aotearoa.

Data for assessment records have not been uniformly recorded. The report also comments on problems with data collection and the consistency and interpretation of the data, and makes recommendations for improving the collection of data to monitor the performance of the breast screening programme. Further analysis of the data is required to determine whether problems with data entry, processing or analysis may explain some of the results obtained.

## **Data issues encountered**

### *Time period*

The monitoring group expected data for the time period January to June 1999 for all lead providers, but received data on varying time periods for each lead provider (ranging from December 1998 - June 1999 to January - October 1999).

### *Age range*

Age at screening for two hundred and two women was less than 50 or greater than or equal to 65 years. Data for these women have been excluded from the report.

### *Duplicate NHI numbers*

For 39 women there were duplicate NHI numbers in the records of enrolment detail received. Of these, 39 had more than one lead provider recorded, 6 had more than one date of birth, 30 had more than one source of identification on enrolment and 39 had more than one domicile code. There are several possible explanations for this.

1. Some women have been screened more than once (for 33 of these duplicate NHI numbers, the woman's date of birth is also the same).
2. Some women have been screened by one lead provider and have then moved to another region. Current database systems require some lead providers to duplicate the previous screening entry for such women.
3. Data entry errors.
4. The encryption process used by NZHIS does not create unique encrypted identifiers.

As it was not possible to identify which of these possibilities occurred for individual women, the 39 women with duplicate NHI numbers have been excluded. None of these women had diagnoses of breast cancer.

### *Screening episode and screening round*

Lead providers have been inconsistent in their use of field B05.02 (screening episode) of the Data Management Manual. All lead providers allocated B01.01 = 1 as their round number but screening episode was utilised inconsistently with two lead providers having all women with one episode whilst another reported one woman having nine episodes. The same lead provider had 1,543 women with four episodes in the same round.

### *Ethnic affiliation*

Ethnic affiliation was not specified for 9.1% of records received.

### *Type of screening unit*

The type of screening unit used is recorded under field B04.03 of the Data Management Manual. The only valid values for this field are "1" for fixed units and "2" for mobile units. Only two lead providers, those of the pilot study areas, had mobile units operating during the period covered by this report. From the data available, one of these lead providers had invalid values for the recording the type of screening unit used. For 90 women a value of "3" and for 412 women a value of "4" was recorded. For one lead provider values of "2" were recorded despite this provider not having a mobile unit at this time.

From the data available 34 women had 40 or more films taken each. This is most likely to be due to data entry errors and need to be checked.

### *Technical recall rates*

Some lead providers do not appear to have recorded any technical recalls in the data provided by NZHIS to the monitoring group therefore technical recall rates for many of the lead providers do not appear accurate. The reasons for this require further investigation.

### *Technical repeat rates*

A second definition of the technical repeat rate has been added to the national indicator set in the Data Management Manual to provide another perspective.

### *Referral for assessment*

From the data provided the monitoring group can not determine the outcome for 25% of the women who were referred for assessment.

### *Biopsy rates*

From the data received the numbers of women recorded as undergoing needle biopsy were low and it is likely that fields B14.04, B14.05, and B14.11 of the Data Management Manual which record, respectively, the type of needle biopsy procedure, date of needle biopsy procedure and outcome of second level assessment were incomplete for some records provided. The result of open biopsy is not currently required to be reported to the NZHIS by lead providers and is unavailable to the monitoring group.

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

1. Inaccurate records need to be reduced to below 2% in the first instance and should preferably be below 0.1% of all records.
2. It is recommended that lead providers inform NZHIS if they duplicate a screening entry when a woman moves to their region, and that NZHIS investigates whether the encryption process could potentially produce the same identifier for more than one NHI number.
3. 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.
4. It is recommended that NZHIS transfers data for the appropriate time period to the monitoring group.
5. It is recommended that assessment records up to the end of the two-month period after the date of last screening results included in the quarterly and annual monitoring reports are provided to the monitoring group.
6. More effort is needed to provide timely assessment appointments for women with abnormal mammograms, in order to minimise anxiety.
7. It is recommended that the HFA requests completion of assessment records within 2 months of the woman's initial assessment appointment.

8. It is recommended that the HFA requests lead providers to encourage women to record which ethnic group they identify with so that fields (B02.11, B02.12 and B02.13) are completed for all women. That is, the value “99” in all three fields should be minimised.
9. Lead providers should be given clear definitions for allocating screening episode (field BO5.02).
10. Field B17.12 should be made mandatory (so BSAIMG can calculate benign biopsy weight).
11. It is recommended that the HFA clarifies for BSAIMG the use of the data fields for registration detail by lead providers so that BSAIMG can accurately calculate registration rates.
12. It is recommended that the HFA obtains population projections for ethnic groups and sends them to BSAIMG.<sup>1</sup>
13. Lead Providers need clear definitions for field B04.03 as one lead provider had entered invalid values.
14. The treatment data set should be sent to BSAIMG as soon as possible.
15. Field B10.03 should be completed for all women referred and all records with B10.03 completed and that pass the validation checks of NZHIS should be available to the monitoring group for the calculation of performance measures associated with assessment episodes.
16. It is recommended that all dates supplied to the monitoring group by NZHIS include 4 digits to record the calendar year and that date fields within tables should be type “date”.

If possible, these recommendations should be addressed before the next download to BSAIMG. Some of these issues will be resolved relatively quickly but others may take longer and therefore it may not be possible to have them actioned by the time of the next report.

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<sup>1</sup> This recommendation has been actioned at the time of reviewing this report and the data will be analysed by the time of the next report.

# 1. Data Summary

## 1.1 Registration rate - overall

Registration is completed when a woman has completed a registration and informed consent form. However, it is not clear that the data fields for registration detail are consistently completed and entered into the information systems of all lead providers. Registration is inferred when all of the data fields for the registration detail are completed and no single field indicates that registration has occurred. As no date of registration is recorded it is difficult to assess the number of women who register but do not complete the screening process. If the women are registered at the time of presenting for screening it may not be a measure of intention to be screened. Also, women may change lead providers and therefore be recorded in the information systems of two lead providers.

***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*

Table 1.1. Overall registration rates by lead provider.

Lead provider	6-month number registered (% of projected population)	Cumulative number registered (% of projected population)
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

## 1.2 Registration rate - age group

The age specific registration rates for the national breast screening programme are currently not available. Therefore, the table for recording this information has been left blank (Table 1.2).

Table 1.2. Age specific registration rates by lead provider.

Lead provider	6-month number registered (% of projected population)			Cumulative number registered (% of projected population)		
	50-54	55-59	60-64	50-54	55-59	60-64
ABS	-	-	-	-	-	-
HWL	-	-	-	-	-	-
MCH	-	-	-	-	-	-
HVH	-	-	-	-	-	-
BSS	-	-	-	-	-	-
HCO	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

## 1.3 Registration rate – ethnicity

Because women may identify with more than one ethnic group, the total number of registrations for an ethnic group exceeds the actual number of women registered with the programme. To deal with this problem, the following default system is used. Where a woman identified with more than one ethnic group including Maori, she was counted as Maori. Women who identified with more than one ethnic group including from a Pacific Island country, but excluding Maori, were counted as Pacific women. All remaining women were counted as “other”. Population projections by ethnic group were unavailable for this report, so registration rates according to ethnic group have not been produced in this report. Therefore, Table 1.3 for recording this information has been left blank.

Table 1.3. Overall registration rates for three ethnic groups by lead provider.

Lead provider	6-month number registered (% of projected population)			Cumulative number registered (% of projected population)		
	Maori	PI	Other	Maori	PI	Other
ABS	-	-	-	-	-	-
HWL	-	-	-	-	-	-
MCH	-	-	-	-	-	-
HVH	-	-	-	-	-	-
BSS	-	-	-	-	-	-
HCO	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

## 1.4 Coverage - overall

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

**Target** - > 70% of women aged 50-64 within the programme.

From the data provided to the monitoring group the number of women screened and coverage is shown by lead provider in Table 1.4. Coverage has been measured by dividing the number of women screened (from provider records supplied by NZHIS) by the number of eligible women expected from projected annual mean usually-resident population projections derived from 1996 population census projections. 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.

Records for 202 women who were aged less than 50 or greater than or equal to 65 at screening were excluded. In six months screening, based on a target of 70% coverage, lead providers would need to screen 17.5% of eligible women. As BreastScreen Central (HVH), BreastScreen Auckland and North (ABS) and BreastScreen Coast to Coast (MCH) commenced screening after 1 January 1999 equivalent 6-month screening rates were calculated. These were 14.4%, 8.8% and 12.1% for BreastScreen Central (HVH), BreastScreen Auckland and North (ABS) and BreastScreen Coast to Coast (MCH), respectively. Only one lead provider achieved the 17.5% screening rate. As the programme took some time to implement and mobile screening only became available after June 30, 1999, in many areas a lower screening rate was anticipated but the screening rate calculated for some lead providers appears very low. This may be partly due to the rejection of about 2000 screening records that did not meet the validation checks required by NZHIS and which were excluded from this report. The Waikato pilot study population was only about half of the population now covered by BreastScreen Midland (HWL) and screening was not fully extended until the end of the 6-month period covered by this report. This partly explains the lower screening rate for this lead provider. From the data available, it would appear that most lead providers will need to achieve significantly greater screening rates from July 1, 1999, onwards if they are to screen at least 70% of eligible women in a two-yearly interval. Unless this occurs slippage in the two-yearly screening interval may occur reducing the possible effectiveness of the screening programme.

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

Lead provider	6-month number screened (%)		Cumulative number screened (% of projected population)	
ABS	7,601	7.9	-	-
HWL	2,422	5.4	-	-
MCH	4,143	10.7	-	-
HVH	3,493	11.3	-	-
BSS	6,484	12.8	-	-
HCO	3,738	17.7	-	-
TOTAL	27,881	9.9	-	-

## 1.5 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 1.5.

Table 1.5. Age specific number of women screened and per cent coverage by lead provider.

Lead provider	6-month number screened (% of projected population)			Cumulative number screened (% of projected population)		
	50-54	55-59	60-64	50-54	55-59	60-64
ABS	3,107 (7.6)	2,323 (7.5)	2,171 (9.0)	-	-	-
HWL	926 (5.2)	523 (3.6)	973 (7.7)	-	-	-
MCH	1,558 (10.0)	1,308 (10.6)	1,277 (11.9)	-	-	-
HVH	1,335 (10.1)	1,225 (12.4)	933 (11.9)	-	-	-
BSS	2,625 (12.5)	2,035 (12.7)	1,824 (13.5)	-	-	-
HCO	1,331 (15.3)	1,296 (19.4)	1,111 (19.2)	-	-	-
TOTAL	10,882 (9.3)	8,710 (9.6)	8,289 (11.1)	-	-	-

Slightly greater coverage of older women compared to younger women appears to have been achieved in the first six months of the programme.

## 1.6 Coverage - ethnicity

There were 2,540 records for which no specific ethnic group was recorded. Accurate and complete data for ethnicity is required so that the monitoring group can calculate registration and coverage rates by ethnic group. Table 1.6 is blank because population projections by ethnicity were not available at the time of this report and 9.1% of records did not adequately specify ethnic affiliation.

Table 1.6. Overall number of women screened and per cent coverage by ethnic group.

Lead provider	6-month number screened (% of projected population)			Cumulative number screened (% of projected population)		
	Maori	PI	Other	Maori	PI	Other
ABS	-	-	-	-	-	-
HWL	-	-	-	-	-	-
MCH	-	-	-	-	-	-
HVH	-	-	-	-	-	-
BSS	-	-	-	-	-	-
HCO	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

## 2. Provision of high quality screening and assessment

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

**Target** - Minimum of 80% of women screened have 4 films or less.

The type of screening unit used is recorded under field B04.03 of the Data Management Manual. The only valid values for this field are “1” for fixed units and “2” for mobile units. Only two lead providers, those of the pilot study areas, had mobile units operating during the period covered by this report. From the data available, one of these lead providers had invalid values for the recording the type of screening unit used. For 90 women a value of “3” and for 412 women a value of “4” was recorded. For one lead provider values of “2” were recorded despite this provider not having a mobile unit at this time. From the data available 34 women had 40 or more films taken each. This is most likely to be due to data entry errors.

With these concerns about 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.

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

Lead Provider	6 months (%)		Cumulative rate (%)	
	Fixed	Mobile	Fixed	Mobile
ABS	88.5	-	-	-
HWL	75.6	85.9	-	-
MCH	87.1	-	-	-
HVH	87.2	-	-	-
BSS	65.8	-	-	-
HCO	73.3	69.5	-	-
TOTAL	80.3	76.9	-	-

Three lead providers appear not to have met the target of at least 80% of women having 4 or fewer films at their fixed sites. Also, one lead provider appears not to have met the target of at least 80% at its mobile site with 69.5% of women having 4 or fewer films.

### 2.2 Technical recall rate

**Definition** - Number of women recalled for technical repeats as a percentage of 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 are shown by lead provider.

Lead Provider	6 months (%)		Cumulative rate (%)	
	Fixed	Mobile	Fixed	Mobile
ABS	0.05	-	-	-
HWL	0.04	0.00	-	-
MCH	0.00	-	-	-
HVH	0.72	-	-	-
BSS	0.11	-	-	-
HCO	0.00	0.08	-	-
TOTAL	0.18	0.08	-	-

One lead provider did not appear to have met the target of less than 0.5% for the technical recall rate for a fixed unit.

### 2.3 Technical repeat rate

For the purposes of this report this measure of performance is defined in two separate ways. The first definition is that defined in the Data Management Manual. The second definition is considered by the monitoring group to be a more appropriate measure of performance. Each of these is used below and separate tables for the two definitions of technical repeat rate are provided.

#### 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.

The technical repeat rate as defined in the variable calculations table of the Data Management Manual (definition 1) resulted in only four women undergoing technical repeats being recorded. Using this definition some lead providers do not appear to have recorded any technical repeats in the data provided by NZHIS to the monitoring group therefore no table is included.

#### 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% (this target relates to definition 2).

The technical repeat rate as defined by the monitoring group (definition 2) is shown in Table 2.3.

Table 2.3. Technical repeat rate per 100 films taken by lead provider.

Lead Provider	6-month technical repeat rate (%)		Cumulative technical repeat rate (%)	
	Fixed	Mobile	Fixed	Mobile
ABS	1.90	-	-	-
HWL	1.36	0.40	-	-
MCH	1.62	-	-	-
HVH	2.66	-	-	-
BSS	2.26	-	-	-
HCO	1.09	0.03	-	-
TOTAL	2.2	0.19	-	-

From the data provided, all lead providers appear to have met the target of less than 3% for the technical repeat rate per 100 films taken.

## 2.4 Assessment rate

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

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

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. Assessment rates are shown in Table 2.4 below.

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

Lead Provider	6-month assessment rate (%)	Cumulative assessment rate (%)
ABS	6.8	-
HWL	3.3	-
MCH	3.9	-
HVH	5.4	-
BSS	5.4	-
HCO	7.7	-
TOTAL	5.7	-

Calculation of assessment rates according to screening round was planned since rates are higher in the prevalence round than in the incidence rounds. However, the recording by lead providers of fields B01.02 and B05.02 of the Data Management Manual, which record, respectively, the programme round and the screening episode have been inconsistent so this has not been possible. Therefore, assessment rates are shown by age group and provider, but not by screening round. However, from the data available one lead provider from a pilot study area, which is expected to be mainly carrying out incidence screens, had an assessment rate of 7.7%. This is high and exceeds the minimum assessment rate target of less than 5%

for incidence screens. The other lead provider in a pilot study area met both the minimum target of less than 5% and the expected target of less than 4%. All other lead providers appear to have met the expected assessment rate targets for prevalence screening during the six-month period.

#### *Possible delays in reporting and delays in data entry for the outcome of assessment*

The targets for assessment and diagnosis are that 90% of women should have had a needle biopsy within 7 days of assessment, 90% of those women who require it should be offered an open biopsy within 3 weeks of assessment, and 90% of women should receive their results within 7 days of their final diagnostic biopsy.

Information reported in this six-month report is for women screened between January 1 and June 30, 1999. The monitoring group received data for assessment episodes of some, but not all, of these women up to October 1999. There were 1,585 women referred for assessment up to June 30, 1999, though the monitoring group only received completed assessment records (where the outcome is known) for 1,193 women. It is not clear from the data available whether this represents delays in diagnosis or delays in data entry for the other 392 women. If either is the case it would be unsatisfactory. The monitoring group would be concerned if some women had not received a definitive diagnosis within 4 months of their screening mammogram.

From the data provided the monitoring group can not determine the outcome for 25% of the women who were referred for assessment. No attempt has been made to calculate the specificity, false positive rate, cancer detection rate, or invasive cancer rate since no information was available about how many of the 392 women for whom assessment records were incomplete had been diagnosed with breast cancer.

## **2.5 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 unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 2.5 has been left blank.

Table 2.5. False positive rate per 100 women screened by lead provider.

Lead Provider	6-month false positive rate (%)	Cumulative false positive rate (%)
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

## 2.6 Open surgical biopsy rate

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

**Target** - < 1%

The open surgical biopsy rate is unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 2.6 has been left blank.

Table 2.6. Rate of open surgical biopsy per 100 women screened by lead provider.

Lead Provider	6-month open surgical biopsy rate (%)	Cumulative open surgical biopsy rate (%)
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

From the data provided only 55 women were recorded as having open surgical biopsy performed. This represents 1.7 per 1,000 women screened (0.17 percent) which is low. Further assessment of the data is required to determine whether problems with data entry or analysis can account for the low rate.

## 2.7 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.

The percentage of open biopsies weighing less than 20 grams was unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 2.7 has been left blank. Field B17.12 of the Data Management Manual which specifies the result of open biopsies is not mandatory and it is unclear whether the results of all biopsies can be determined from the data available to the monitoring group.

Table 2.7. Per cent of open biopsies weighing < 20g per 100 women screened by lead provider.

Lead Provider	6-month benign biopsy rate (%)	Cumulative benign biopsy rate (%)
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

## 2.8 Needle biopsy rates

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

**Target** – None set

The needle biopsy rates for fine needle aspiration and core biopsy were unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 2.8 has been left blank. However, from the data received the numbers of women recorded as undergoing needle biopsy were low and it is likely that fields B14.04, B14.05, and B14.11 of the Data Management Manual which record, respectively, the type of needle biopsy procedure, date of needle biopsy procedure and outcome of second level assessment were incomplete.

Table 2.8. Rate of needle biopsy per 100 women screened by lead provider.

Lead Provider	6 months		Cumulative	
	FNA %	Core Needle %	FNA %	Core Needle %
ABS	-	-	-	-
HWL	-	-	-	-
MCH	-	-	-	-
HVH	-	-	-	-
BSS	-	-	-	-
HCO	-	-	-	-
TOTAL	-	-	-	-

## 2.9 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%

The specificity of the programme was unable to be estimated because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 2.9 has been left blank.

Table 2.9. Specificity of the programme by lead provider.

Lead Provider	6-month specificity (%)	Cumulative specificity(%)
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

**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  
 The cancer detection rate was unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 3.1 has been left blank.

Table 3.1. Specificity of the programme by lead provider.

Lead Provider	6-month cancer detection rate		Cumulative cancer detection rate	
	Prevalent	Incident	Prevalent	Incident
ABS	-	-	-	-
HWL	-	-	-	-
MCH	-	-	-	-
HVH	-	-	-	-
BSS	-	-	-	-
HCO	-	-	-	-
TOTAL	-	-	-	-

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

Due to delays in the finalisation of a national treatment dataset 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.

## 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.

The time taken to provide results of screening to women for each lead provider calculated from the data received from NZHIS is shown in Table 5.1.

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

Lead Provider	6-month % notified within 10 working days	Cumulative % notified within 10 working days
ABS	97.8	-
HWL	73.9	-
MCH	99.6	-
HVH	96.8	-
BSS	98.3	-
HCO	100.0	-
TOTAL	96.3	-

From the data available, one lead provider appears not to have met the target of 95% for the timely notification of results to women. This lead provider appears to have been able to notify only 73.9% of women of their result within 10 working days. The 100% notification rate for another lead provider also seems improbable.

### 5.2 Time taken from screening visit to first offered 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.

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 assessment appointment for the women screened by each lead provider.

Lead Provider	6-month % offered assessment within 14 working days*	Cumulative % offered assessment within 14 working days
ABS	61.2	-
HWL	93.3	-
MCH	92.1	-
HVH	89.1	-
BSS	83.3	-
HCO	50.5	-
TOTAL	73.0	-

\* only available for 55% of women referred for assessment

Only 872 women (of 1,585 referred to assessment) had a date of first level assessment recorded in the field B9.04 of the Data Management Manual despite this being a mandatory field. Therefore, the monitoring group has been unable to measure the timeliness of assessment appointments for 45% of the women referred to assessment. For the women with complete records, only two lead providers met the target of at least 90%, and a third was close, at 89.1%.

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

**Definition** - Date of needle 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.

The time taken from screening visit to first assessment appointment for women of each lead provider was unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 5.3 has been left blank.

Table 5.3. Time taken from screening visit to first assessment appointment for women of each lead provider.

Lead Provider	6 months		Cumulative	
	90% completed within 7 days of assessment	90% offered within 3 weeks of assessment	90% completed within 7 days of assessment	90% offered within 3 weeks of assessment
ABS	-	-	-	-
HWL	-	-	-	-
MCH	-	-	-	-
HVH	-	-	-	-
BSS	-	-	-	-
HCO	-	-	-	-
TOTAL	-	-	-	-

#### 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.

The time taken from final diagnostic biopsy to reporting assessment results for women of each lead provider was unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 5.4 has been left blank.

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

Lead Provider	6-month % results within 7 days	Cumulative % results within 7 days
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

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

**Definition** - Date first offered for 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.

The time taken from reporting assessment results to first date offered for primary treatment for women of each lead provider was unavailable because the data received for 25% of the women who were referred for assessment was incomplete. Therefore, Table 5.5 has been left blank.

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

Lead Provider	6-month % women offered primary treatment within 3 weeks	Cumulative % women offered primary treatment within 3 weeks
ABS	-	-
HWL	-	-
MCH	-	-
HVH	-	-
BSS	-	-
HCO	-	-
TOTAL	-	-

## **APPENDIX A**

The BreastScreen Aotearoa Independent Monitoring Group (BSAIMG) provides information routinely to the Health Funding Authority (HFA) and lead providers in the form of quarterly and annual reports. Reports include information about the key parameters of BreastScreen Aotearoa, as outlined below. Each report also will make comment on any problems with data collection, the consistency and interpretation of the data, and will make recommendations for improving collection processes.

The reports will assess the data of BreastScreen Aotearoa, and of individual providers, with respect to the National Monitoring Indicator Set (NMIS). The reports will also indicate when revision of the NMIS is required, and the HFA will be informed of these new requirements, together with a justification for any change to the NMIS.

National averages will be stated within each individual lead provider report to enable performance comparisons. Recommendations to lead providers and the HFA will also be included when action is required to improve or maintain the performance of BreastScreen Aotearoa.

Information to be included routinely in quarterly reports is identified with an asterisk. Other information will be provided six-monthly or annually but some results cannot be provided until the end of a screening round. The BSAIMG will also report on other issues of importance as and when they arise.

## **A2.0 KEY PARAMETERS**

These parameters relate to the screening pathway, from registration of eligible women, screening, and assessment, to diagnosis and treatment. Within each stage of the screening pathway certain parameters will be measured. These parameters have been chosen because they can be used as indicators of the acceptability, effectiveness, and efficiency of BSA.

### **A2.1 IDENTIFICATION AND INVITATION**

Identification and invitation of eligible women are essential components of a national breast cancer screening programme. Irrespective of the quality of the other aspects of the programme, a programme that fails to identify and invite a high proportion of the eligible population will also fail to have the desired impact on breast cancer morbidity and mortality. Current identification and invitation processes do not allow the BSAIMG to accurately assess these aspects of the national programme.

#### **A2.1.1 Registration rate \***

This rate will be measured by dividing the number of registered women (from provider records) as a percentage of the number of eligible women according to projected population numbers. Registration rates, with 95% confidence intervals, will be calculated for each provider area, and for the whole country, by age group. The target registration rate is 85% by the end of the prevalence round, and the performance of BSA against this target will be reported after the end of the prevalence screening round.

#### **A2.1.2 Coverage rate \***

Coverage will be measured by dividing the number of women screened (from provider records) by the number of eligible women according to projected population numbers. Coverage rates will be calculated for each provider area, and for the whole country (if data is available from Health Benefits Ltd for private sector screening of women), by age group. Coverage rates for BSA and for the private sector will also be calculated separately. The target is >70% of women aged 50-64 years in BSA. The performance of BSA with respect to this target will be measured at the end of the prevalence screening round.

### **A2.2 SCREENING TEST**

The validity of the screening test will be examined by calculating its sensitivity and specificity. The screening test is the point of entry for a woman with breast cancer. If her cancer is missed, she cannot benefit from early detection. Because the test is not perfect, some women will have false positive or false negative tests. These should be kept to a minimum in order to avoid unnecessary anxiety and investigations, or false reassurance.

### **A2.2.1 Radiation dose/Optical density**

The mean absorbed dose to glandular tissue (MGD) for a test object (routinely collected as part of equipment calibration and maintenance) will be obtained from provider records and reported in each annual report. Optical density, a measure of film density and mammographic quality will be obtained from provider records and reported in each annual report.

### **A2.2.2 Number of films taken \***

The number of films taken for each woman screened will be obtained from provider records. This will be compared against the target of a minimum of 80% of women having 4 or fewer films. Numbers of films per woman will be calculated by provider, and for mobile versus fixed screening centres.

### **A2.2.3 Technical recall rate \***

The number of women recalled for extra films for technical reasons (from provider records) will be divided by the number of women screened (from provider records). Technical recall rates will be calculated according to screening round, by provider, and for mobile versus fixed screening centres. Targets are <3% for mobile units and <0.5% for fixed units.

### **A2.2.4 Technical repeat rate \***

The number of technical repeat films will be divided by the total number of films taken (from provider records). Technical repeat rates will be calculated according to screening round, by provider, and for mobile versus fixed screening centres. The target is <3%.

### **A2.2.5 Sensitivity (estimate)**

Sensitivity will be estimated by dividing the number of women with screen-detected breast cancer by the sum of this number and the number of women with interval cancers in the year following a negative screen. The target is 90%. Sensitivity will be estimated for each screening round by age group and by region and provider.

### **A2.2.6 Specificity (actual)**

Specificity will be calculated after a complete screening round, by dividing the number of women with true negative screening tests by the sum of this number and the number of women with false positive tests. In order to measure the number of women with true negative tests, it will be important to measure the number of women with false negative tests (interval cancers). This information will have to be obtained from provider records (negative tests) and also from the Cancer Registry of the NZHIS (women diagnosed with interval cancers following a negative test). Specificity will be calculated by age group and by region and provider. The target is >93%.

### **A2.2.7 Specificity (approximate)\***

Specificity can be estimated before the second screening round by dividing all negative tests (including false negatives) by the sum of all negatives and false positives. This is an adequate estimate of specificity (although false negatives have been included in the numerator and the denominator) because the number of false negatives is very small in relation to the number of true negatives. This information will be obtained from provider records. Specificity will be estimated by age group and by provider. The target is >93%.

### **A2.2.8 Positive predictive value (PPV)**

The number of women with breast cancer diagnosed through the screening programme will be divided by the sum of this number and the number of women with false positive screening tests (i.e.: the number of women with screen-detected cancer as a percentage of all women referred for assessment). This information will be obtained from provider records. The positive predictive value will be calculated by screening round, by age group, and by region and provider, and will be reported in each annual report. The target PPV is  $\geq 9\%$ .

## **A2.3 ASSESSMENT**

Women with positive screening tests will be referred for assessment. The number referred will be determined by the underlying prevalence of breast cancer in the population and by the sensitivity and specificity of the screening test. Ideally the assessment process will determine which women with positive screening tests actually have breast cancer and require treatment, while minimising unnecessary anxiety and investigations in the other women.

### **A2.3.1 Assessment rate \***

The assessment rate will be calculated by dividing the number of women referred for assessment by the total number of women screened. Assessment rates will be calculated by screening round, by age group, and by provider. Targets for the prevalence screening round are <7% (expected) and <10% (minimum). Targets for the incidence screening rounds are <4% (expected) and <5% (minimum). These targets will not be measured until after the end of each screening round.

### **A2.3.2 False positive rate of mammograms \***

The false positive rate will be calculated by dividing the number of women with false positive screening results (women referred for assessment but who do not have breast cancer diagnosed as a result) divided by the total number of women screened. This information will be obtained from provider records. The false positive rate will be calculated by age group, and by provider. Targets for the prevalence screening round are <6% (expected) and <9% (minimum). Targets for the incidence screening rounds are <3% (expected) and <4% (minimum). These targets will not be measured until after the end of each screening round

### **A2.3.3 Needle biopsy rate \***

The needle biopsy rate will be calculated by dividing the number of women undergoing FNA divided by the number of women screened. This information will be obtained from provider records. The needle biopsy rate will be calculated by age group, and by provider. No target has been set for the needle biopsy rate.

### **A2.3.4 Benign biopsy weight**

The weight of benign biopsy is measured to ensure 80% weigh less than 20g. The rate is calculated by the number of benign biopsies, which weigh less than 20g as a percentage of the number of benign open biopsies.

### **A2.3.5 Open surgical biopsy rate \***

The open surgical biopsy rate will be calculated by dividing the number of women undergoing open surgical biopsy divided by the number of women screened. This information will be obtained from provider records. The open surgical biopsy rate will be calculated by age group, and by provider. The target for the open surgical biopsy rate is 1% or less.

### **A2.3.6 Benign biopsy rate \***

The benign biopsy rate will be calculated by dividing the number of women with benign open surgical biopsy divided by the number of women screened. This information will be obtained from provider records. The benign biopsy rate will be calculated by age group, and by provider. The targets are <10 per 1,000 women screened in the prevalence round and <5 per 1,000 women screened in the incidence rounds. The performance of BSA with respect to these targets will be summarised in the annual reports.

## **A2.4 DIAGNOSIS**

The number of women diagnosed with breast cancer as a result of BSA will be partly determined by the underlying prevalence of breast cancer in the eligible population, but also by the quality of the screening and assessment procedures. After diagnosis, the size and node status of cancers detected can be used as an indicator of the effectiveness of BSA.

### **A2.4.1 Pre-operative diagnosis rate**

This will be calculated by dividing the number of women whose breast cancers were diagnosed by needle biopsy by the total number of women with breast cancer diagnosed through the screening programme. This information will be obtained from provider records. The target is  $\geq 70\%$ . The pre-operative diagnosis rate will be calculated by age group, and by region and provider, and will be reported annually.

#### **A2.4.2 Cancer detection rate \***

The cancer detection rate will be calculated by dividing the number of women with breast cancer diagnosed through the screening programme by the number of women screened. This information will be obtained from provider records. The cancer detection rate and 95% confidence interval will be calculated by age group, and by region and provider. The targets are <6 per 1,000 women screened in the prevalence round and <3 per 1,000 women screened in the incidence rounds. The performance of the programme with respect to these targets will be reported in the annual reports.

In the prevalent round the cancer detection rate is expected to be at least three times the expected breast cancer incidence rate in the absence of screening. In the incident round it is expected to be at least 1.5 times the expected breast cancer incidence rate in the absence of screening. The expected incidence rate in the absence of screening will be estimated based on historical data from the Cancer Registry, taking into account relevant demographic trends.

#### **A2.4.3 Invasive cancer rate**

This will be calculated by dividing the number of women with invasive breast cancer detected through the screening programme by the number of women screened. This information will be obtained from provider records. The invasive cancer rate and 95% confidence interval will be calculated by age group, and by region and provider, and reported six-monthly. The target is 4.8 per 1,000 women screened.

#### **A2.4.4 Small invasive cancer detection rate**

As above, but for cancers  $\leq 10\text{mm}$ . The target is 1.2 per 1,000 women screened per incident round.

#### **A2.4.5 Proportion of women diagnosed with nodal involvement**

The proportion of women with nodal involvement will be calculated by dividing the number of women with breast cancer involving axillary nodes diagnosed through the screening programme by the total number of women diagnosed with breast cancer diagnosed through the screening programme. This information will be obtained from provider records. The proportion will be calculated by age group, and by region and provider, and will be reported six-monthly. The target is that at least 70% of women with cancers detected by BSA should be node negative (i.e. less than 30% node positive).

#### **A2.4.6 Proportion of DCIS**

As above, but for DCIS. The target is that 10-25% of all cancers detected by BSA should be DCIS.

#### **A2.4.7 Interval cancer rate**

The interval cancer rate will be calculated by dividing the number of women with breast cancer detected within 12 months of a negative screen by the total number of women with negative screening tests during that screening round. This information will be obtained from the providers and from the Cancer Registry. The interval cancer rate, and 95% confidence interval, will be calculated by screening round and by region, and reported annually. The targets are <0.6 per 1,000 women screened within 1 calendar year of a negative screen, and <1.2 per 1,000 women screened between the 1<sup>st</sup> and 2<sup>nd</sup> year of a negative screen.

#### **A2.4.8 Proportion of women with cancers detected by the programme**

The proportion of women with cancers detected by the programme will be calculated by dividing the number of women with breast cancer diagnosed through the programme by the total number of women in the eligible age-range diagnosed with breast cancer in a given period. This information will be obtained from the providers and from the Cancer Registry. The proportion will be calculated by screening round, by age, and by region, and reported annually.

### **A2.5 TIMELINESS**

The following relate to the requirement for the programme to ensure prompt and appropriate treatment for women who take part in the National Breast Cancer Screening Programme. The information will be collected from the providers, and where appropriate, from NZHIS. The dates of screening, providing results of screening, assessment, providing assessment results, date of biopsy, providing biopsy result, date of final diagnostic biopsy, result of final biopsy, and date first offered for primary treatment will be collected. The time taken for the following indicators will be calculated according to screening round and by region. The indicators will be reported quarterly.

#### **A2.5.1 Time to recall after a negative screen**

Eligible women should be offered mammograms at two-yearly intervals. The percentage of eligible women recalled within 24 months of their previous screen will be measured.

#### **A2.5.2 Time taken to provide results of screening \***

The target is for 95% of women to be notified within 10 working days of the screening examination.

#### **A2.5.3 Time taken from screening visit to first assessment appointment \***

The target is for 90% of women to be offered their assessment appointment within 14 working days of their final mammogram.

**A2.5.4 Time taken from final assessment to final diagnostic biopsy \***

The target is for 90% of women requiring needle biopsy to have that procedure completed within 7 days of their assessment, and for 90% of women requiring open surgical biopsy to be offered that procedure within 3 weeks of their assessment.

**A2.5.5 Time taken from final diagnostic biopsy to reporting assessment results \***

The target is that 90% of women should have received their results within 7 days of their final diagnostic biopsy.

**A2.5.6 Time taken from reporting assessment results to first date offered for primary treatment\***

The target is that 90% of women are offered primary treatment within 3 weeks of the final diagnosis being reported to them.

### **A3.0 QUARTERLY REPORT PROCESS**

- A3.1** BSAIMG receives cleaned data in agreed format from NZHIS within one month of quarter end.
- A3.2** BSAIMG drafts quarterly report as agreed proforma within two months of quarter end.
- A3.3** BSAIMG discusses the draft with lead providers (own report) before it is finalised.
- A3.4** HFA and lead providers' review draft reports and feedback within one month of receiving reports.
- A3.5** BSAIMG assesses feedback and finalises its report.
- A3.6** BSAIMG electronically transfers final quarterly report to the HFA within two weeks of receiving feedback. If a serious issue becomes apparent it will be discussed with the HFA prior to this transfer.
- A3.7** HFA circulates reports to each lead provider (own report).
- A3.8** BSAIMG forwards a copy of the report directly to the HFA Screening Advisory Group chair.

## **A4.0 DATA**

- A4.1** Lead providers have responsibility to collect data in such a way as to ensure that an accurate timely and consistent set of health data is available for comparative purposes (Chapter 1, DMM p1.5).
- A4.2** Lead providers have responsibility to adhere to the minimum standards for the collection and management of data as set out in Chapter 2, Minimum Standards, BreastScreen Aotearoa, and DMM.
- A4.3** The funder, lead providers, and BSAIMG are to adhere to the guiding principles of data collection and management described in the document “NZHIS Guide to Data Requirements”.
- A4.4** BSAIMG will utilise the same title, definition, numbering and lettering for indicators as outlined in the DMM.
- A4.5** All quantitative information will be provided directly to BSAIMG by NZHIS as agent for the HFA.
- A4.6** BSAIMG will utilise projected population figures for calculation of the registration rate and population coverage.
- A4.7** Quarterly and annual reports will include women screened and assessed in that quarter who have a screening and final diagnosis recorded. Reports may include details of a previous screening quarter’s assessment data – if this occurs it will state which screening quarter the assessment data relates to.
- A4.8** Round reports will include all women screened and assessed in a defined 24-month period.