

BSA New Zealand Southern District Health Board Coverage Report

For the period ending
31 March 2019

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Introduction

BreastScreen Aotearoa (BSA) is a national public health screening programme funded by the Government to offer free Mammography every two years to women aged 45–69 years of age. The aim of BSA is to reduce morbidity and mortality from breast cancer by the early detection and treatment of the disease.

BSA's target is to screen 70 percent of eligible women aged 50–69 every two years. BSA does not have a target for women aged 45–49 years because there is less evidence of the benefits of this age group's participation in a population health breast screening programme.

Improving uptake of the breast cancer screening programme by Māori and Pacific women is a key priority of the National Screening Unit (NSU) as part of its commitment to achieving equity. Coverage rates are monitored closely for these two groups who are known to be at increased risk of developing breast cancer and have significantly higher mortality rates from breast cancer. From June 2018 the NSU added the number of Asian women screened by DHB and the eligible population to the quarterly reports (tables 4 and 5). While Asian women are not at increased risk of developing breast cancer, it is important to monitor the rate of screening in this group to understand screening behaviours.

While the majority (15) of District Health Boards (DHBs) are not directly contracted by the Ministry of Health to provide breast screening services, it is expected that all DHBs will have linkages to breast screening activities. The programme is delivered throughout the country by eight lead providers, their sub-contracted providers (where applicable), and mobile units that deliver services to rural and some urban communities. Working alongside the lead providers are 13 screening support service providers in defined geographical areas providing recruitment and retention, and support services for Māori, Pacific and other priority group women.

Women who screen regularly have a lower risk of dying from breast cancer than those who screen less regularly. Rescreening rates are calculated as the number of women rescreened within 20-27 months of their previous screen as a percentage of the number of women eligible for a rescreen. Where a woman has more than one screening episode recorded in a screening period, only the last episode is reported. This may result in variances when women's screens and rescreens are completed by different providers.

BSA monitor initial and subsequent screening rates. Initial rescreens are the proportion of women who have a screening mammogram within 20-27 months after their first screening appointment. There has been a decline in the proportion of women being rescreened within 27 months of their first mammogram and from June 2018 the initial rescreen rates were included in the quarterly DHB reports (page 7).

Numerator: Women screened in the 24 month period preceding the report end date and who are eligible for rescreening and returned for a rescreen within 20-27 months. (1 January 2017 to 31 March 2019)

Denominator: Women screened in the 24 month period preceding the report end date who are eligible for rescreening. (1 January 2015 to 31 December 2016).

The purpose of this quarterly report is to demonstrate by DHB if the programme coverage and rescreening targets are being met for the region.

Technical notes

The data for the period ending 31 March 2019 was extracted from the national BreastScreen Aotearoa database (the Database) on 23 April 2019.

Screened women are included in the coverage calculations based on their age at the time of their screen. This means that coverage for women aged 50–69 years includes women who may have turned 70 or 71 during the monitoring period.

For both women screened and in the denominator, women have been prioritised to a single ethnicity using the following priority order: Māori, Pacific, Other. This means that if a woman chooses more than one category, and one of these is Māori, she is counted as Māori. For screened women with no ethnicity recorded in the Database, her screen contributes to overall coverage but not to any particular ethnicity. This means that the total number of women screened may be greater than the sum of women screened by ethnicity.

The denominators used for calculating coverage for the periods ending 31 March 2017, 31 March 2018 and 31 March 2019 are derived from Statistics New Zealand's District Health Board (DHB) population projections 30 June 2017 update, based on the 2013 Census.

From December 2016, the National Screening Unit (NSU) begins reporting using the latest 2013 domicile codes and daily data loading process, compared to previous reports which used a monthly data loading process and were based on 2006 domicile codes. The denominator is the projected population for the mid-point of the monitoring period.

This means that for the two-year period ending:

- 31 March 2017, the denominator is the projected population for 31 March 2016
- 31 March 2018, the denominator is the projected population for 31 March 2017
- 31 March 2019, the denominator is the projected population for 31 March 2018

Delivery of BSA services through mobile units may also result in fluctuations in the number of women screened in a quarter which may impact on coverage from year to year depending on the mobile unit schedule.

Additional detail on the methodology can be obtained via a request made to screening@moh.govt.nz.

Southern coverage

Southern coverage by ethnicity in the two years ending 31 March 2019

Figure 1: BSA coverage (%) in the two years ending 31 March 2019 by ethnicity, women aged 50–69 years, Total Coverage

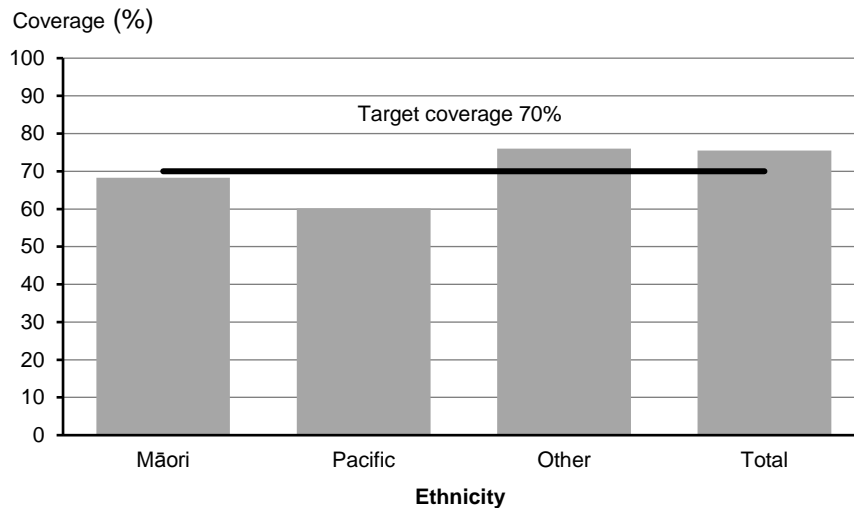


Table 1: BSA coverage (%) in the two years ending 31 March 2019 by ethnicity, women aged 50–69 years, Total Coverage

| Ethnicity | Population | Women screened in last 2 years | 2-year coverage | Additional screens to reach target* |
|--------------|---------------|--------------------------------|-----------------|-------------------------------------|
| Māori | 2,489 | 1,700 | 68.30% | 42 |
| Pacific | 353 | 212 | 60.10% | 35 |
| Other | 38,014 | 28,906 | 76.00% | |
| Unspecified | | 34 | | |
| Total | 40,856 | 30,852 | 75.50% | |

*For the total population the number of additional screens is the number required to move from the total population coverage to 70%. This may not be the same as the sum of additional screens required for each ethnic group to reach 70%.

Southern coverage trends by ethnicity

Figure 2: BSA coverage (%) of women aged 50–69 years in the two years ending 31 March 2017, 31 March 2018 and 31 March 2019 by ethnicity, Total Coverage

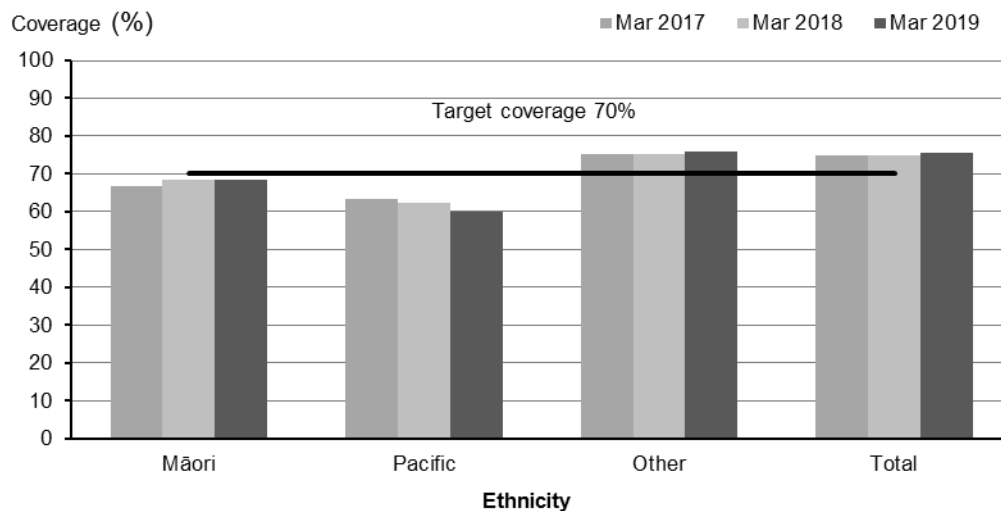


Table 2: BSA number of screens in women aged 50–69 years by ethnicity and quarter, Quarter 1 2018 –Quarter 1 2019

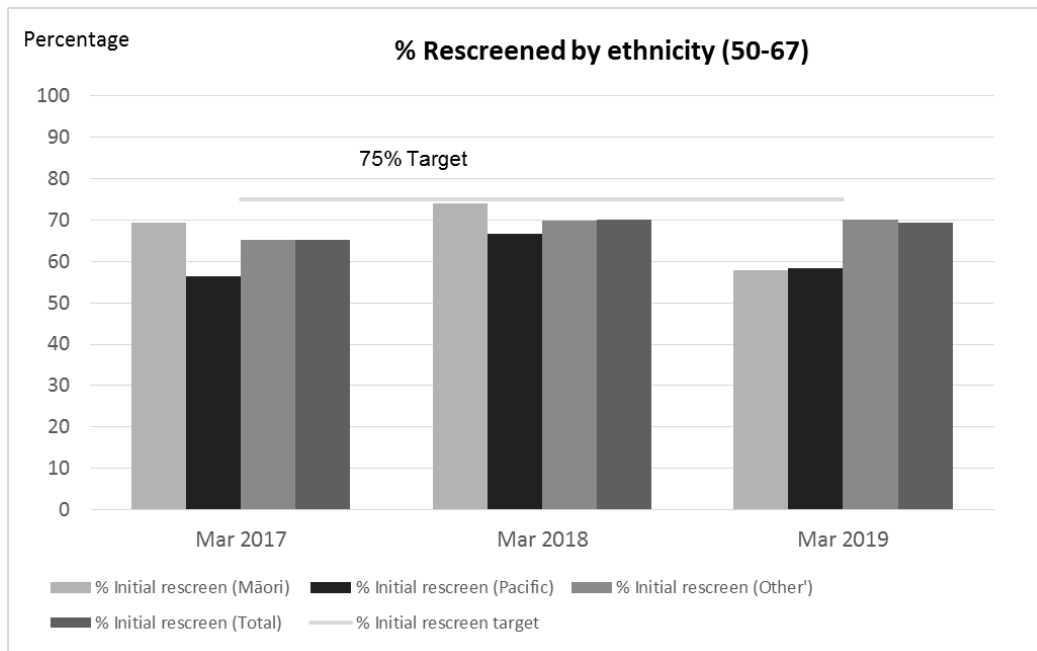
| Ethnicity | Number of screens by quarter | | | | |
|--------------|------------------------------|---------------------|---------------------|---------------------|-------------------|
| | Q1 (Jan - Mar) 2018 | Q2 (Apr - Jun) 2018 | Q3 (Jul - Sep) 2018 | Q4 (Oct - Dec) 2018 | Q1 (Jan-Mar) 2019 |
| Māori | 230 | 205 | 280 | 206 | 241 |
| Pacific | 28 | 21 | 40 | 36 | 24 |
| Other | 4,053 | 3,717 | 4,501 | 2,931 | 3,753 |
| Total | 4,311 | 3,943 | 4,821 | 3,173 | 4,018 |

Number of Initial Rescreens by Ethnicity

Table 3: BSA number of eligible screens and initial rescreens for women aged 50–67 years by ethnicity for the rescreen period 1 January 2017 to 31 March 2019 (eligible period 1 January 2015 to 31 December 2016)

| Ethnicity | Number of eligible screens | Number of initial rescreens | % | CI (95%) |
|--------------|----------------------------|-----------------------------|--------------|---------------------|
| Māori | 57 | 33 | 57.9% | (44.1, 70.9) |
| Pacific | 12 | 7 | 58.3% | (27.7, 84.8) |
| Other | 817 | 573 | 70.1% | (66.9, 73.3) |
| Total | 886 | 613 | 69.2% | (66.0, 72.2) |

Figure 3: BSA number of initial eligible rescreens by ethnicity



DHB coverage comparisons

DHB coverage by ethnicity in the two years ending 31 March 2019

Figure 4: BSA coverage (%) of Māori women aged 50–69 years in the two years ending 31 March 2019 by District Health Board

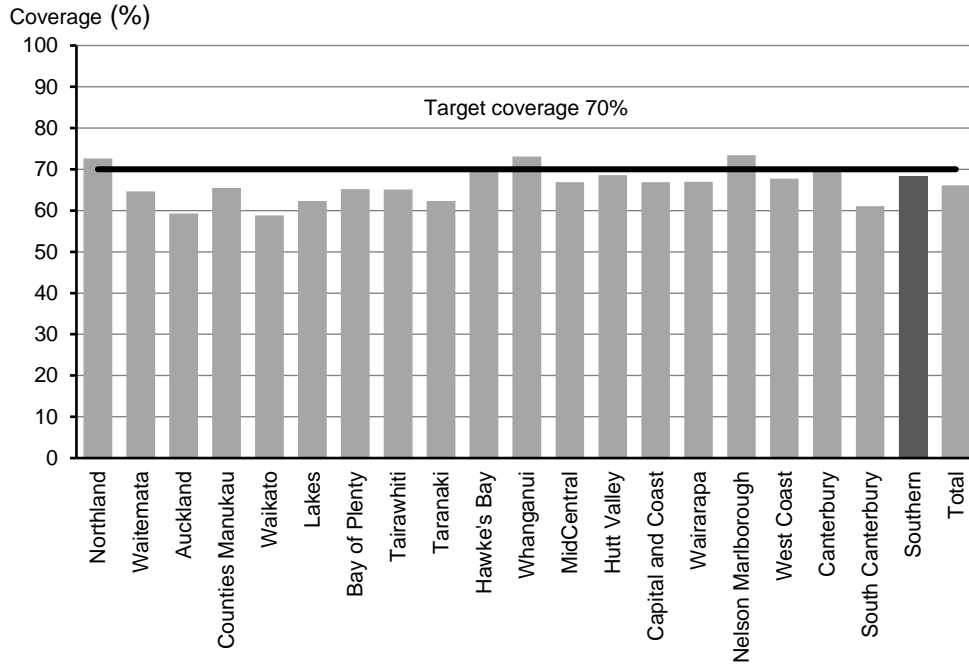


Figure 5: BSA coverage (%) of Pacific women aged 50–69 years in the two years ending 31 March 2019 by District Health Board

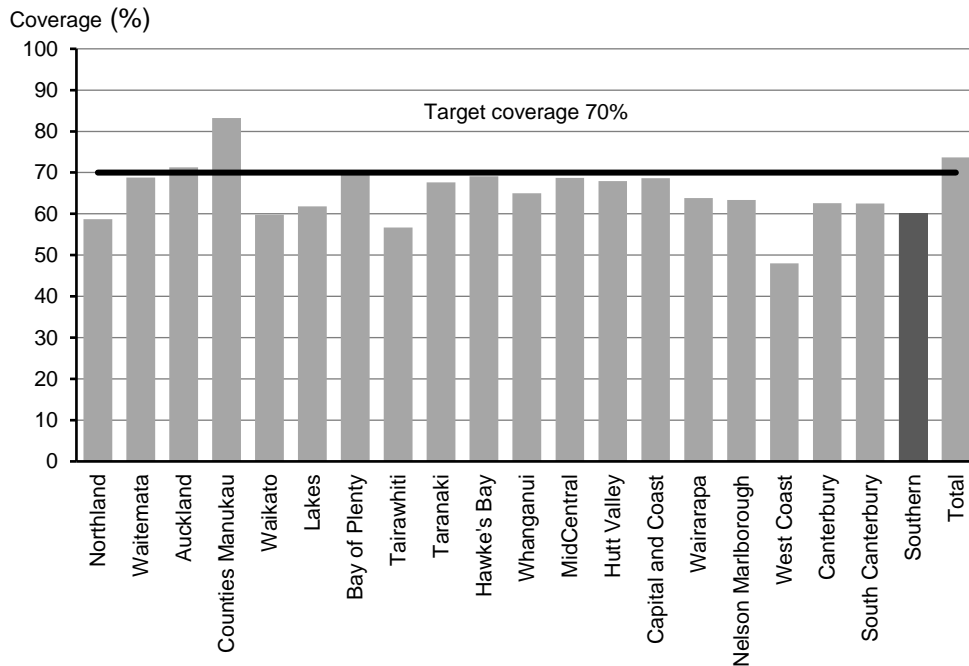


Figure 6: Overall BSA coverage (%) of women aged 50–69 years in the two years ending 31 March 2019 by District Health Board

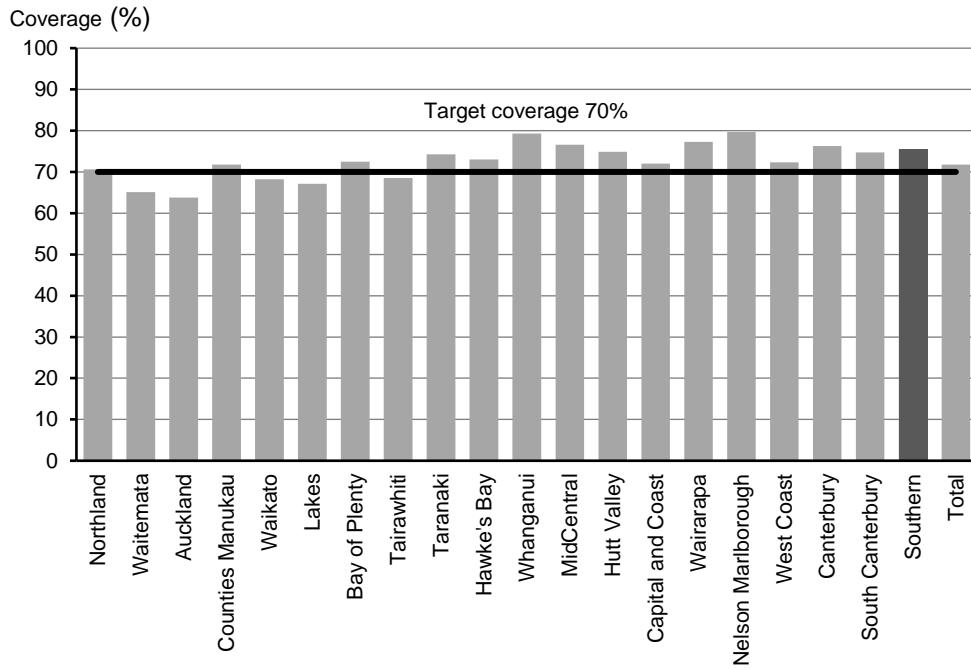


Figure 7: BSA coverage (%) of Māori women aged 50–69 years in the two years ending 31 March 2019

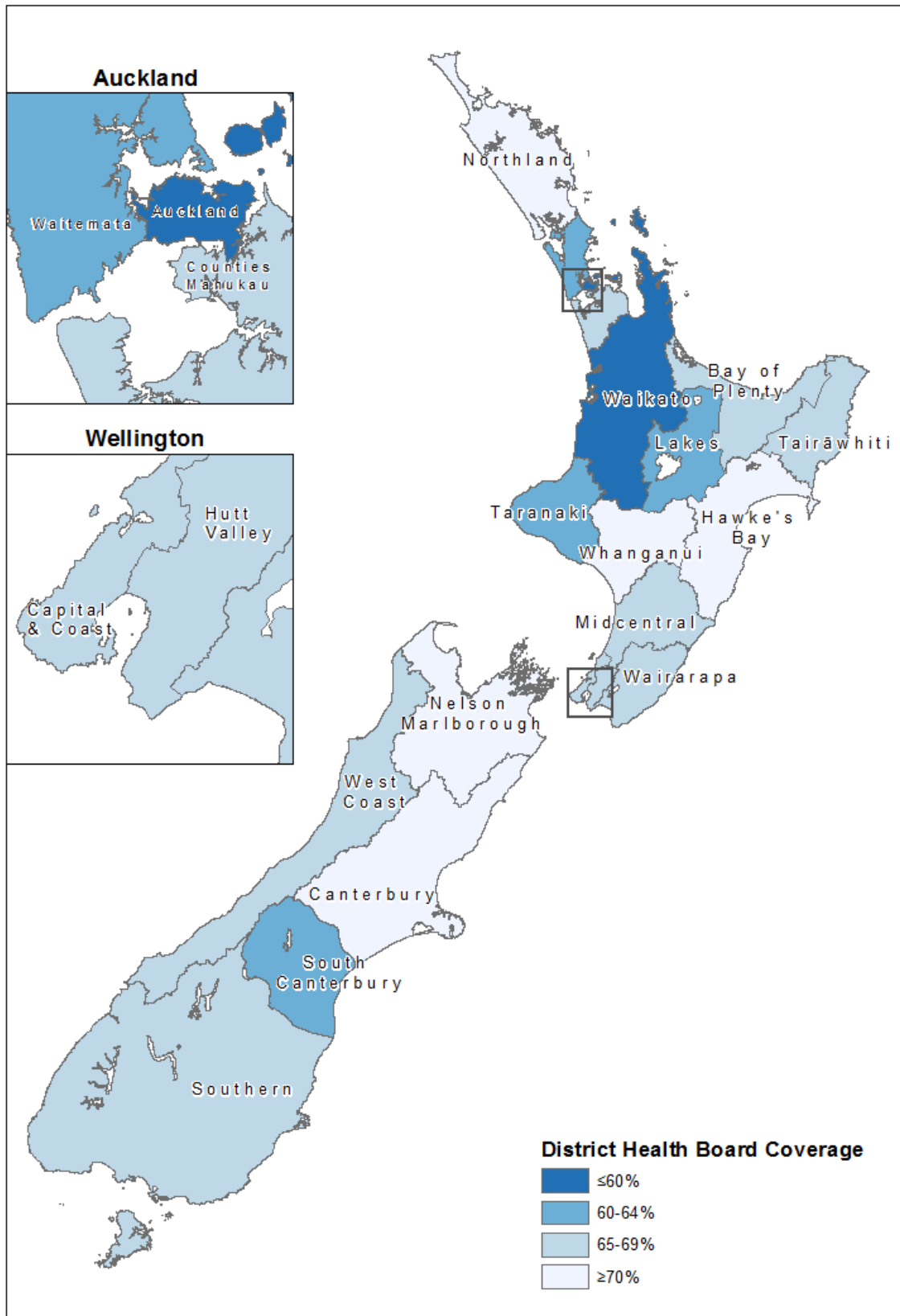


Figure 8: BSA coverage (%) of Pacific women aged 50–69 years in the two years ending 31 March 2019

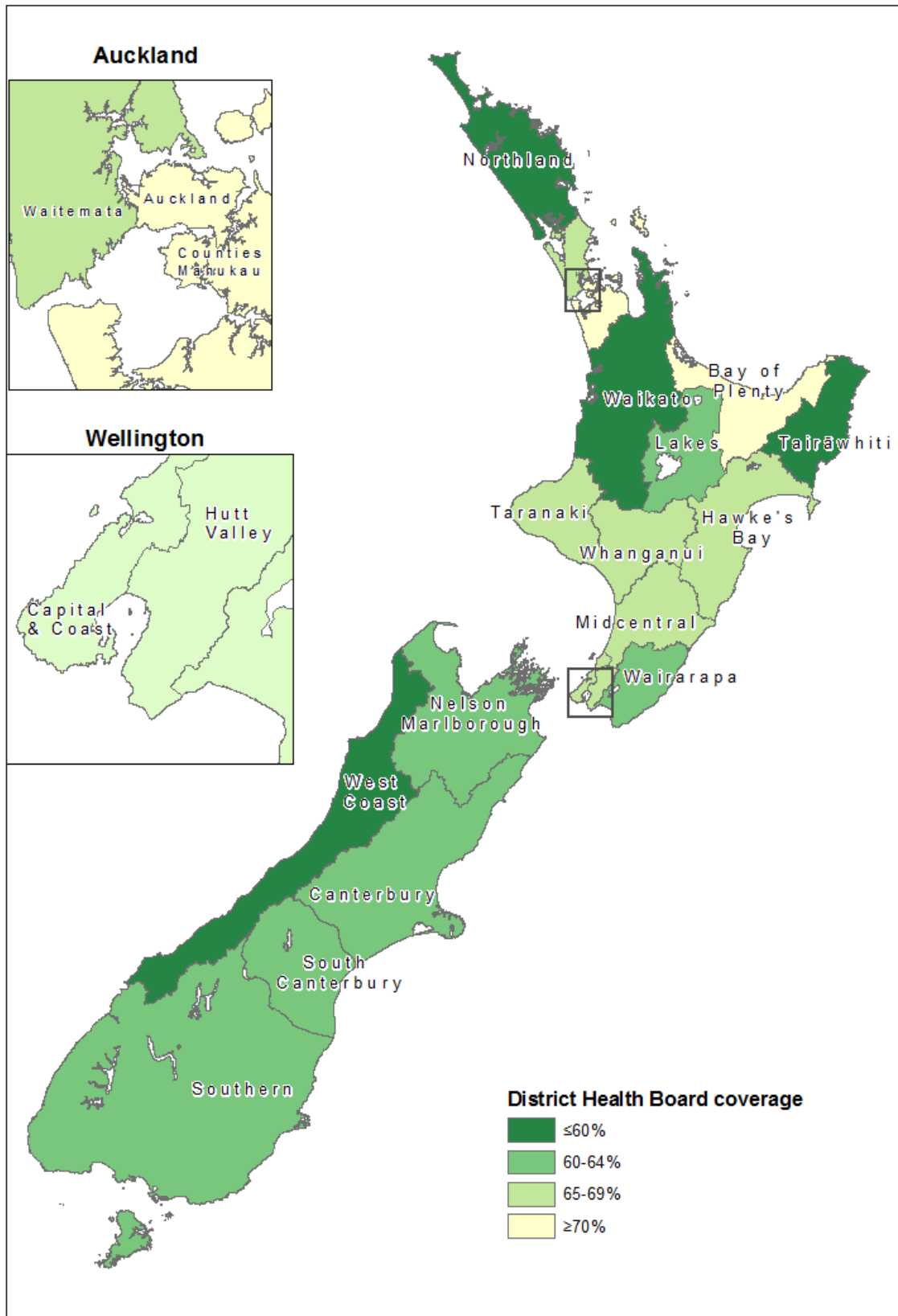


Figure 9: Overall BSA coverage (%) of women aged 50–69 years in the two years ending 31 March 2019 by District Health Board



Table 4: BSA number of screens and coverage (%) in women aged 50–69 years in the two years ending 31 March 2019 by District Health Board

| DHB | Eligible Population | | | | | Screens | | | | | | Coverage | | | | |
|--------------------|---------------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|-------------|----------------|--------------|--------------|--------------|--------------|--------------|
| | Māori | Pacific | Asian | Other | Total | Māori | Pacific | Asian | Other | Unspecified | Total | Māori | Pacific | Asian | Other | Total |
| Northland | 5,991 | 334 | 918 | 17,872 | 25,115 | 4,347 | 196 | 447 | 12,740 | 9 | 17,739 | 72.6% | 58.7% | 48.7% | 71.3% | 70.6% |
| Waitemata | 4,856 | 3,680 | 14,283 | 48,880 | 71,699 | 3,139 | 2,532 | 9,456 | 31,566 | 17 | 46,710 | 64.6% | 68.8% | 66.2% | 64.6% | 65.1% |
| Auckland | 3,764 | 4,976 | 16,084 | 29,571 | 54,395 | 2,232 | 3,549 | 10,434 | 18,361 | 103 | 34,679 | 59.3% | 71.3% | 64.9% | 62.1% | 63.8% |
| Counties Manukau | 6,904 | 9,343 | 15,654 | 27,361 | 59,262 | 4,523 | 7,778 | 10,182 | 20,032 | 15 | 42,530 | 65.5% | 83.2% | 65.0% | 73.2% | 71.8% |
| Waikato | 7,848 | 933 | 3,833 | 36,951 | 49,565 | 4,612 | 558 | 1,908 | 26,690 | 22 | 33,790 | 58.8% | 59.8% | 49.8% | 72.2% | 68.2% |
| Lakes | 3,558 | 241 | 898 | 9,206 | 13,903 | 2,216 | 149 | 362 | 6,587 | 17 | 9,331 | 62.3% | 61.8% | 40.3% | 71.6% | 67.1% |
| Bay of Plenty | 5,426 | 288 | 1,666 | 23,888 | 31,268 | 3,538 | 201 | 692 | 18,234 | 5 | 22,670 | 65.2% | 69.8% | 41.5% | 76.3% | 72.5% |
| Tairāwhiti | 2,434 | 104 | 129 | 3,388 | 6,055 | 1,585 | 59 | 59 | 2,444 | 1 | 4,148 | 65.1% | 56.7% | 45.7% | 72.1% | 68.5% |
| Taranaki | 1,832 | 108 | 528 | 12,816 | 15,284 | 1,142 | 73 | 242 | 9,891 | 6 | 11,354 | 62.3% | 67.6% | 45.8% | 77.2% | 74.3% |
| Hawke's Bay | 3,701 | 421 | 854 | 17,444 | 22,420 | 2,602 | 291 | 407 | 13,053 | 19 | 16,372 | 70.3% | 69.1% | 47.7% | 74.8% | 73.0% |
| Whanganui | 1,619 | 123 | 294 | 6,651 | 8,687 | 1,184 | 80 | 135 | 5,489 | 3 | 6,891 | 73.1% | 65.0% | 45.9% | 82.5% | 79.3% |
| MidCentral | 2,815 | 383 | 1,394 | 17,746 | 22,338 | 1,884 | 263 | 758 | 14,199 | 9 | 17,113 | 66.9% | 68.7% | 54.4% | 80.0% | 76.6% |
| Hutt Valley | 2,149 | 999 | 2,086 | 13,024 | 18,258 | 1,475 | 678 | 1,420 | 10,083 | 12 | 13,668 | 68.6% | 67.9% | 68.1% | 77.4% | 74.9% |
| Capital and Coast | 2,841 | 1,988 | 4,826 | 26,334 | 35,989 | 1,902 | 1,363 | 2,889 | 19,721 | 36 | 25,911 | 66.9% | 68.6% | 59.9% | 74.9% | 72.0% |
| Wairarapa | 698 | 69 | 155 | 5,505 | 6,427 | 468 | 44 | 100 | 4,349 | 7 | 4,968 | 67.0% | 63.8% | 64.5% | 79.0% | 77.3% |
| Nelson Marlborough | 1,388 | 164 | 676 | 19,998 | 22,226 | 1,019 | 104 | 315 | 16,244 | 28 | 17,710 | 73.4% | 63.4% | 46.6% | 81.2% | 79.7% |
| West Coast | 396 | 25 | 99 | 4,154 | 4,674 | 268 | 12 | 54 | 3,028 | 19 | 3,381 | 67.7% | 48.0% | 54.5% | 72.9% | 72.3% |
| Canterbury | 3,698 | 931 | 5,574 | 58,373 | 68,576 | 2,602 | 583 | 2,758 | 46,332 | 54 | 52,329 | 70.4% | 62.6% | 49.5% | 79.4% | 76.3% |
| South Canterbury | 416 | 40 | 244 | 7,846 | 8,546 | 254 | 25 | 64 | 6,042 | 3 | 6,388 | 61.1% | 62.5% | 26.2% | 77.0% | 74.7% |
| Southern | 2,489 | 353 | 1,889 | 36,125 | 40,856 | 1,700 | 212 | 771 | 28,135 | 34 | 30,852 | 68.3% | 60.1% | 40.8% | 77.9% | 75.5% |
| Unspecified | 0 | 0 | | | 0 | 160 | 34 | 45 | 1,473 | 0 | 1,712 | | | | | |
| Total | 64,823 | 25,503 | 72,084 | 423,133 | 585,543 | 42,852 | 18,784 | 43,498 | 314,693 | 419 | 420,246 | 66.1% | 73.7% | 60.3% | 74.4% | 71.8% |

DHB coverage comparison trends by ethnicity

Table 5: BSA coverage (%) of women aged 50–69 years in the two years ending 31 March, 2017, 2018, 2019, by ethnicity and District Health Board

| DHB | Māori | | | Pacific | | | Asian | | | Other | | | Total | | |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Mar-17 | Mar-18 | Mar-19 | Mar-17 | Mar-18 | Mar-19 | Mar-17 | Mar-18 | Mar-19 | Mar-17 | Mar-18 | Mar-19 | Mar-17 | Mar-18 | Mar-19 |
| Northland | 71.5% | 69.6% | 72.6% | 66.8% | 62.2% | 58.7% | 50.2% | 48.6% | 48.7% | 74.2% | 72.3% | 71.3% | 72.5% | 70.8% | 70.6% |
| Waitemata | 65.1% | 64.3% | 64.6% | 67.1% | 66.7% | 68.8% | 67.7% | 66.5% | 66.2% | 67.5% | 65.0% | 64.6% | 67.1% | 65.3% | 65.1% |
| Auckland | 58.3% | 58.3% | 59.3% | 71.6% | 69.2% | 71.3% | 69.6% | 66.7% | 64.9% | 61.3% | 61.5% | 62.1% | 64.8% | 63.6% | 63.8% |
| Counties Manukau | 64.0% | 64.9% | 65.5% | 76.0% | 80.1% | 83.2% | 63.2% | 65.4% | 65.0% | 69.5% | 71.6% | 73.2% | 68.7% | 70.6% | 71.8% |
| Waikato | 58.6% | 58.5% | 58.8% | 56.7% | 58.3% | 59.8% | 48.6% | 49.9% | 49.8% | 70.2% | 72.8% | 72.2% | 67.5% | 68.7% | 68.2% |
| Lakes | 62.5% | 65.4% | 62.3% | 62.4% | 64.4% | 61.8% | 45.2% | 47.1% | 40.3% | 71.5% | 75.9% | 71.6% | 68.8% | 71.5% | 67.1% |
| Bay of Plenty | 60.0% | 60.8% | 65.2% | 67.5% | 66.2% | 69.8% | 44.5% | 42.7% | 41.5% | 74.1% | 74.8% | 76.3% | 69.2% | 70.8% | 72.5% |
| Tairāwhiti | 69.0% | 67.4% | 65.1% | 65.6% | 63.3% | 56.7% | 50.4% | 52.4% | 45.7% | 73.0% | 72.2% | 72.1% | 71.5% | 69.8% | 68.5% |
| Taranaki | 62.4% | 62.1% | 62.3% | 62.4% | 61.6% | 67.6% | 47.3% | 46.8% | 45.8% | 76.5% | 77.6% | 77.2% | 74.1% | 74.7% | 74.3% |
| Hawke's Bay | 67.6% | 70.1% | 70.3% | 67.3% | 66.7% | 69.1% | 54.1% | 51.9% | 47.7% | 75.4% | 74.3% | 74.8% | 73.6% | 72.8% | 73.0% |
| Whanganui | 72.1% | 71.6% | 73.1% | 71.4% | 68.1% | 65.0% | 53.2% | 49.6% | 45.9% | 80.6% | 81.1% | 82.5% | 78.4% | 78.3% | 79.3% |
| MidCentral | 66.4% | 66.8% | 66.9% | 66.6% | 68.4% | 68.7% | 57.8% | 56.1% | 54.4% | 79.0% | 79.3% | 80.0% | 76.3% | 76.3% | 76.6% |
| Hutt Valley | 68.2% | 68.7% | 68.6% | 66.6% | 66.2% | 67.9% | 69.7% | 65.1% | 68.1% | 77.3% | 73.5% | 77.4% | 75.5% | 71.7% | 74.9% |
| Capital and Coast | 68.0% | 68.2% | 66.9% | 67.6% | 67.8% | 68.6% | 63.6% | 62.1% | 59.9% | 74.8% | 75.3% | 74.9% | 72.9% | 72.8% | 72.0% |
| Wairarapa | 68.9% | 70.4% | 67.0% | 70.3% | 70.8% | 63.8% | 53.6% | 57.2% | 64.5% | 77.5% | 75.3% | 79.0% | 76.4% | 74.4% | 77.3% |
| Nelson Marlborough | 76.7% | 74.3% | 73.4% | 66.7% | 67.9% | 63.4% | 45.2% | 44.5% | 46.6% | 81.4% | 80.8% | 81.2% | 80.6% | 79.4% | 79.7% |
| West Coast | 68.5% | 62.8% | 67.7% | 35.0% | 32.0% | 48.0% | 51.3% | 52.2% | 54.5% | 78.9% | 73.4% | 72.9% | 76.3% | 72.3% | 72.3% |
| Canterbury | 69.9% | 68.0% | 70.4% | 65.0% | 63.6% | 62.6% | 50.6% | 50.2% | 49.5% | 79.9% | 78.8% | 79.4% | 76.4% | 76.0% | 76.3% |
| South Canterbury | 66.8% | 67.3% | 61.1% | 50.0% | 59.0% | 62.5% | 26.0% | 26.9% | 26.2% | 79.9% | 78.4% | 77.0% | 77.7% | 76.5% | 74.7% |
| Southern | 66.7% | 68.6% | 68.3% | 63.3% | 62.2% | 60.1% | 45.4% | 41.5% | 40.8% | 76.5% | 77.0% | 77.9% | 74.9% | 75.0% | 75.5% |
| Total | 65.4% | 65.5% | 66.1% | 70.8% | 71.7% | 73.7% | 62.5% | 61.7% | 60.3% | 74.1% | 74.0% | 74.4% | 71.9% | 71.7% | 71.8% |