

# **BSA New Zealand Bay of Plenty District Health Board Coverage Report**

For the period ending  
31 December 2018

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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 is adding 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 are 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 October 2016 to 31 December 2018)

Denominator: Women screened in the 24 month period preceding the report end date who are eligible for rescreening. (1 October 2014 to 30 September 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 December 2018 was extracted from the national BreastScreen Aotearoa database (the Database) on 18 January 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 December 2016, 31 December 2017 and 31 December 2018 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 December 2016, the denominator is the projected population for 31 December 2015
- 31 December 2017, the denominator is the projected population for 31 December 2016
- 31 December 2018, the denominator is the projected population for 31 December 2017

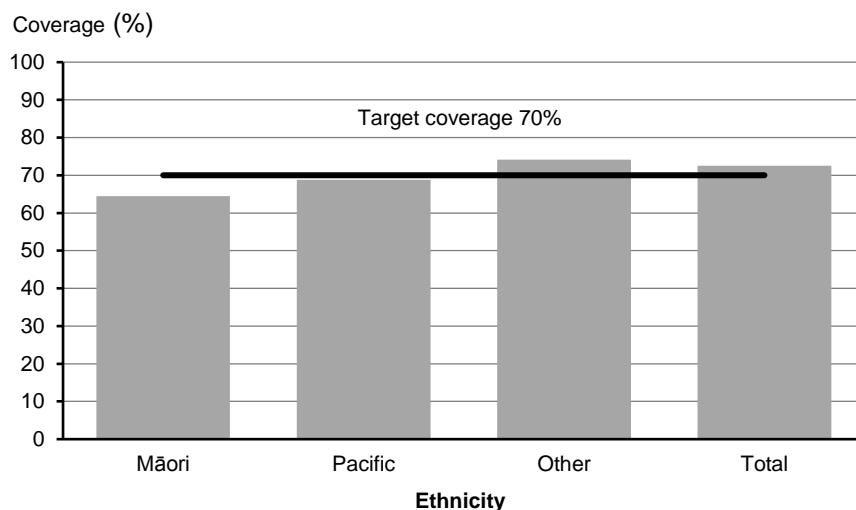
Delivery of BSA services through mobile units may also result in fluctuations in the number of women screened in a quarter which may impact on coverage from year to year depending on the mobile unit schedule.

Additional detail on the methodology can be obtained via a request made to [screening@moh.govt.nz](mailto:screening@moh.govt.nz).

# Bay of Plenty coverage

## Bay of Plenty coverage by ethnicity in the two years ending 31 December 2018

**Figure 1: BSA coverage (%) in the two years ending 31 December 2018 by ethnicity, women aged 50–69 years, Total Coverage**



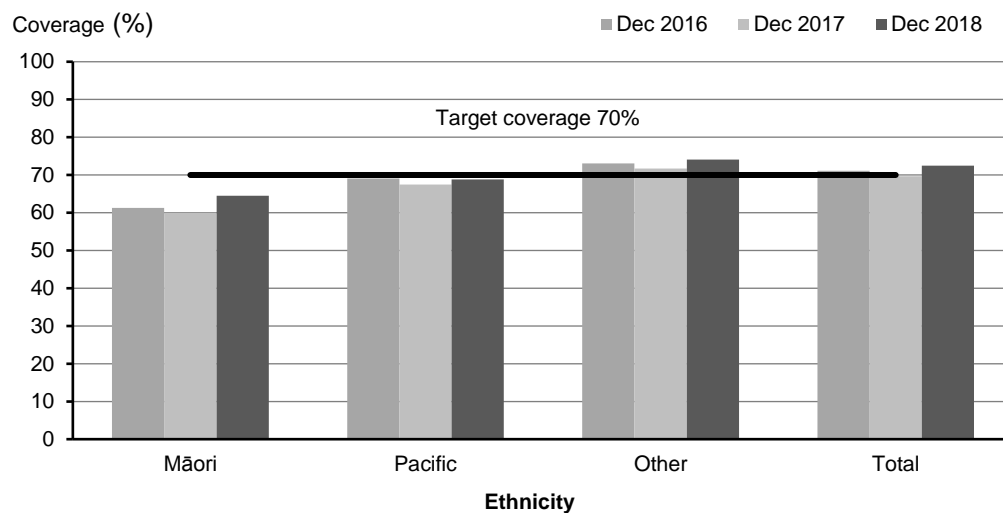
**Table 1: BSA coverage (%) in the two years ending 31 December 2018 by ethnicity, women aged 50–69 years, Total Coverage**

Ethnicity	Population	Women screened in last 2 years	2-year coverage	Additional screens to reach target*
Māori	5,390	3,475	64.50%	298
Pacific	285	196	68.80%	3
Other	25,435	18,852	74.10%	
Unspecified		20		
<b>Total</b>	<b>31,110</b>	<b>22,543</b>	<b>72.50%</b>	

\*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%.

## Bay of Plenty coverage trends by ethnicity

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



**Table 2: BSA number of screens in women aged 50–69 years by ethnicity and quarter, Quarter 4 2017 –Quarter 4 2018**

Ethnicity	Number of screens by quarter				
	Q4 (Oct- Dec) 2017	Q1 (Jan - Mar) 2018	Q2 (Apr - Jun) 2018	Q3 (Jul - Sep) 2018	Q4 (Oct - Dec) 2018
Māori	271	380	515	507	541
Pacific	16	28	34	32	34
Other	1,679	2,563	3,243	2,643	2,420
<b>Total</b>	<b>1,966</b>	<b>2,971</b>	<b>3,792</b>	<b>3,182</b>	<b>2,995</b>

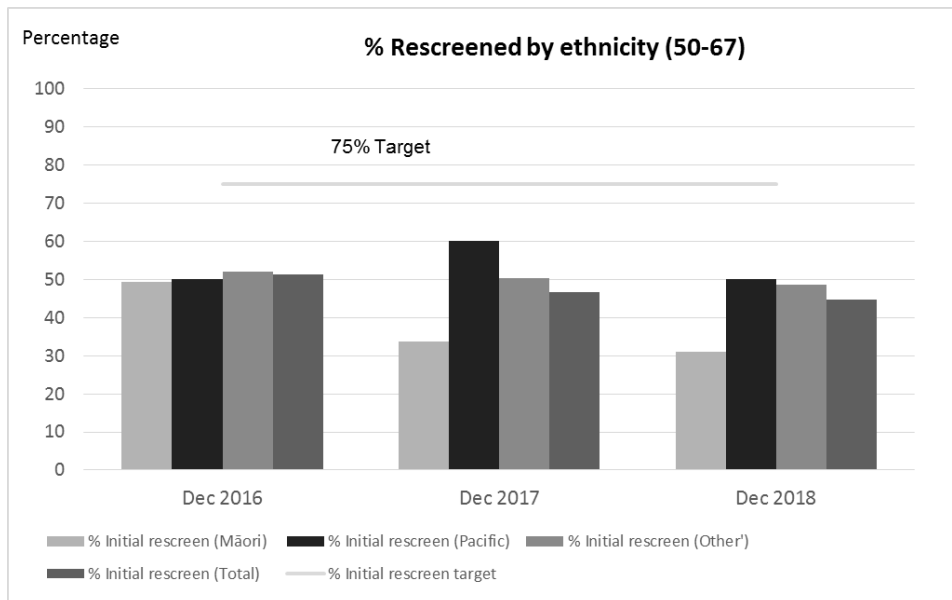


## Number of Initial Rescreens by Ethnicity

**Table 3: BSA number of eligible screens and initial rescreens for women aged 50–67 years by ethnicity for the rescreen period 1 October 2016 to 31 December 2018 (eligible period 1 October 2014 to 30 September 2016)**

Ethnicity	Number of eligible screens	Number of initial rescreens	%	CI (95%)
Māori	210	65	31.0%	(24.8, 37.7)
Pacific	12	6	50.0%	(21.1, 78.9)
Other	737	358	48.6%	(44.9, 52.3)
<b>Total</b>	<b>959</b>	<b>429</b>	<b>44.7%</b>	<b>(41.6, 47.9)</b>

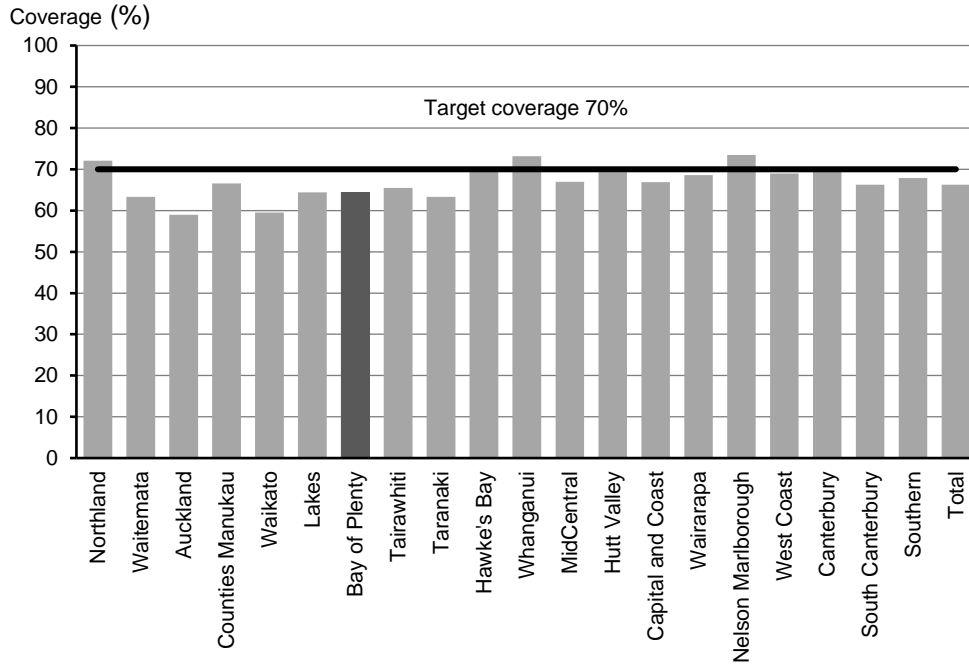
**Figure 3: BSA number of initial eligible rescreens by ethnicity**



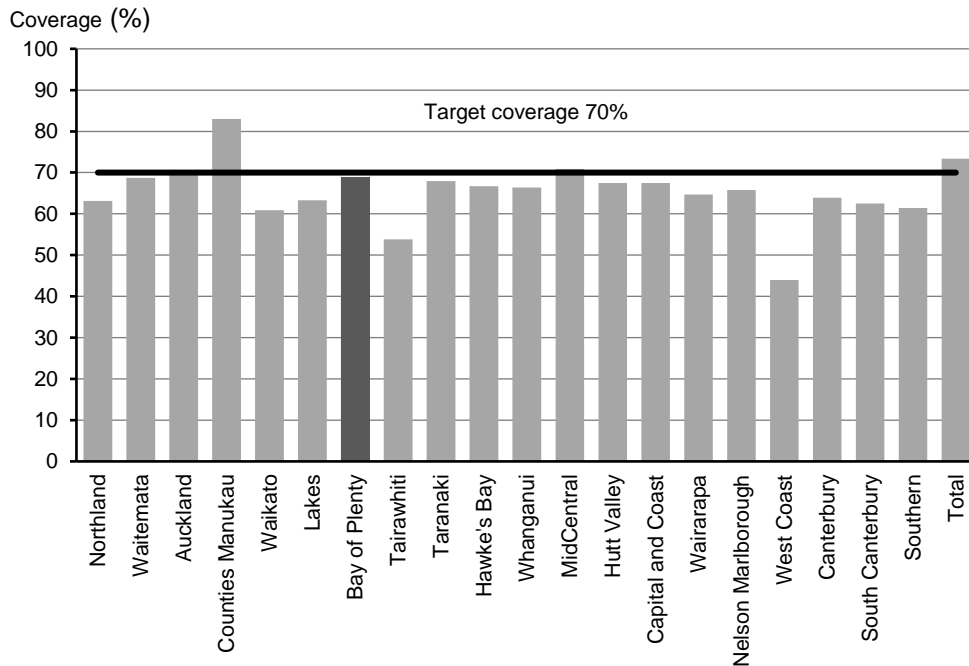
# DHB coverage comparisons

## DHB coverage by ethnicity in the two years ending 31 December 2018

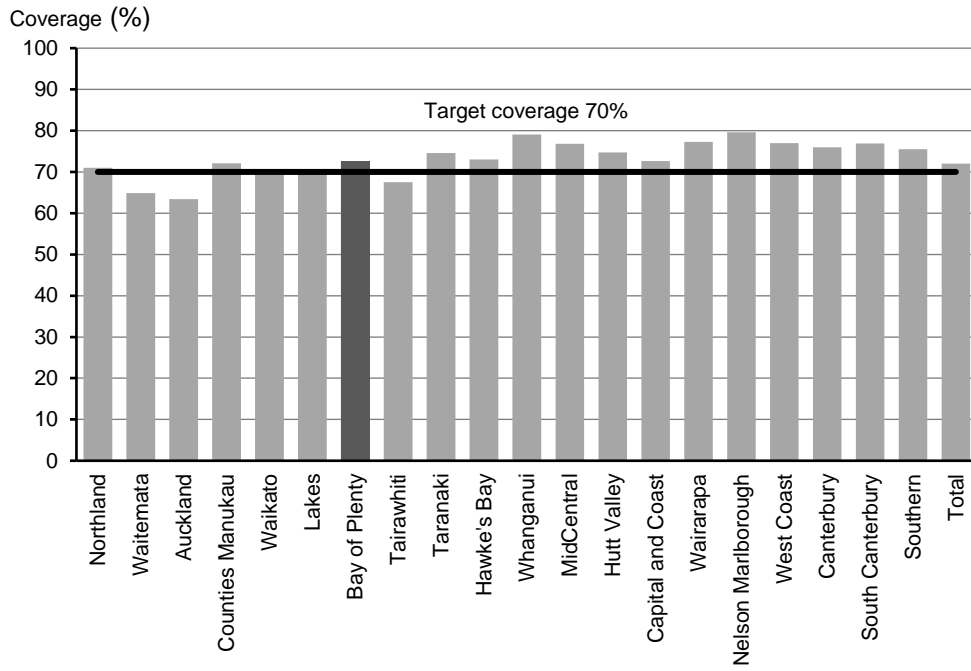
**Figure 4: BSA coverage (%) of Māori women aged 50–69 years in the two years ending 31 December 2018 by District Health Board**



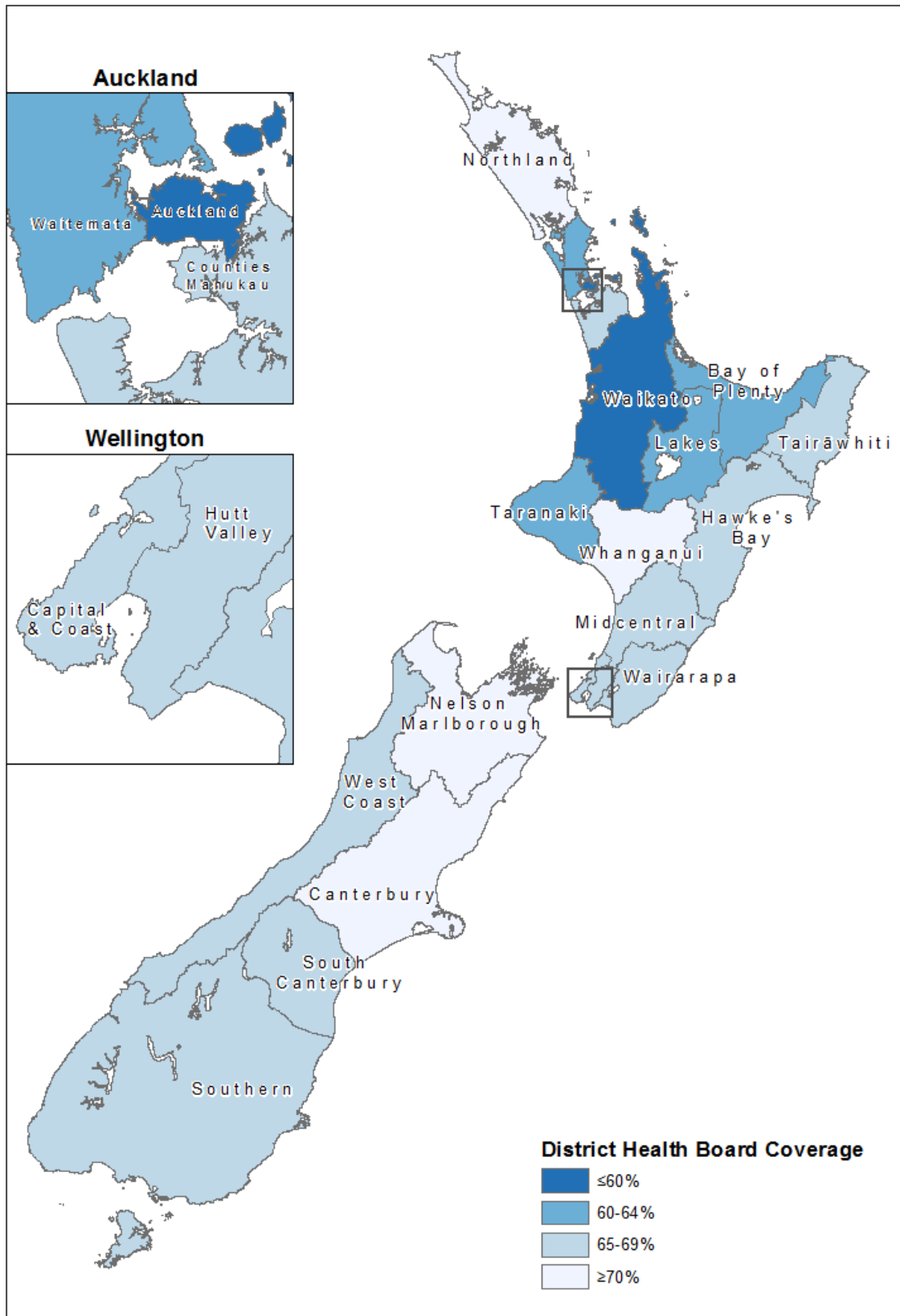
**Figure 5: BSA coverage (%) of Pacific women aged 50–69 years in the two years ending 31 December 2018 by District Health Board**



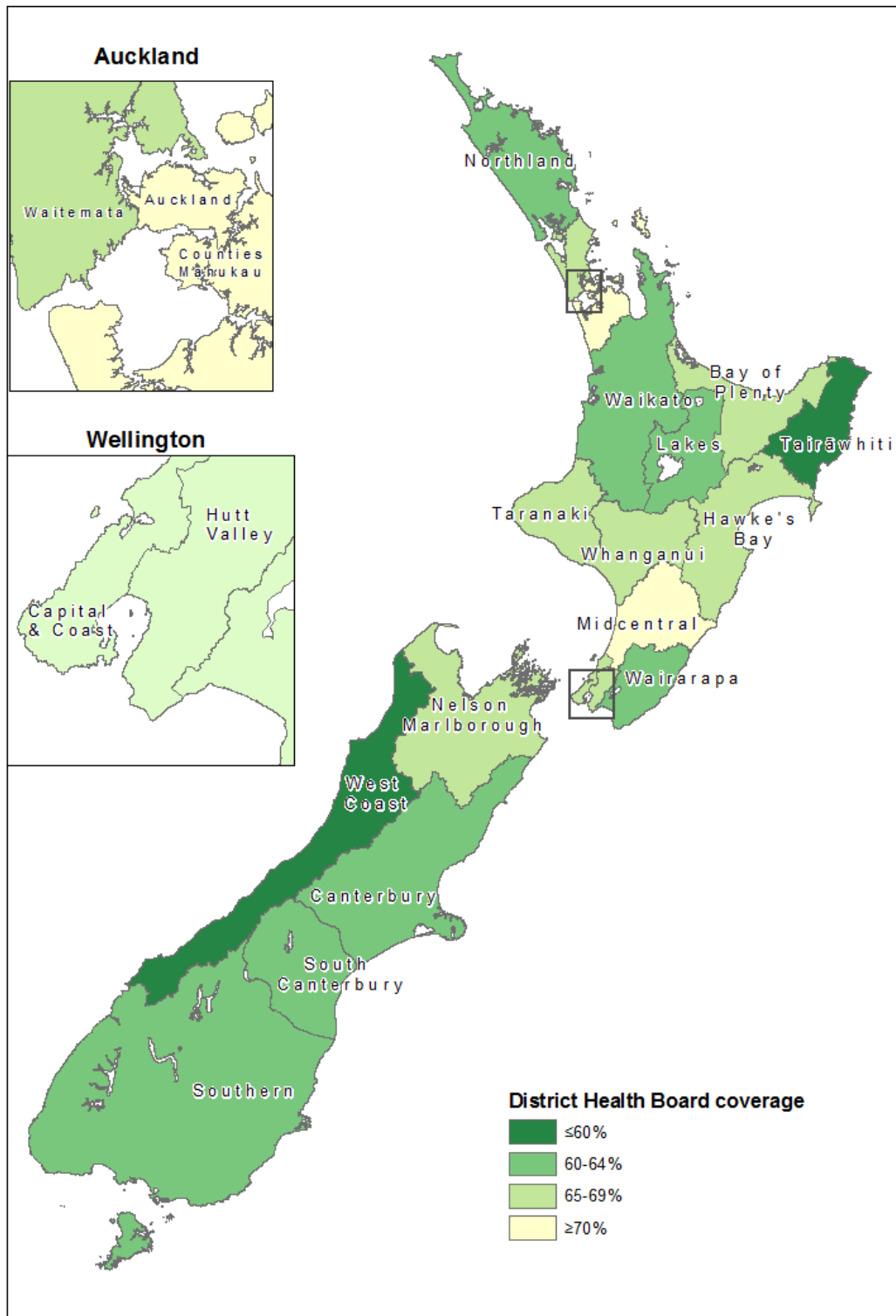
**Figure 6: Overall BSA coverage (%) of women aged 50–69 years in the two years ending 31 December 2018 by District Health Board**



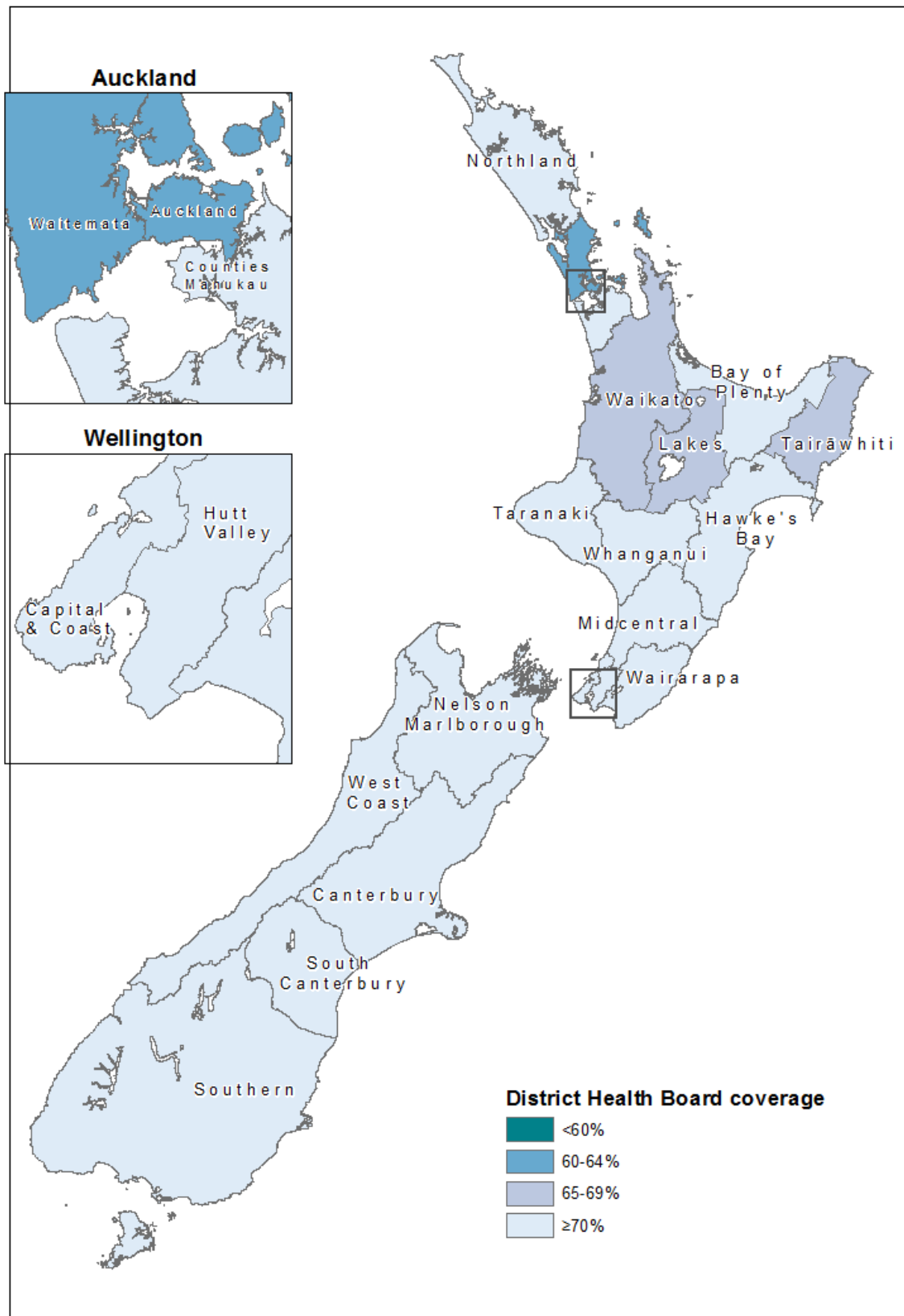
**Figure 7: BSA coverage (%) of Māori women aged 50–69 years in the two years ending 31 December 2018**



**Figure 8: BSA coverage (%) of Pacific women aged 50–69 years in the two years ending 31 December 2018**



**Figure 9: Overall BSA coverage (%) of women aged 50–69 years in the two years ending 31 December 2018 by District Health Board**



## DHB coverage comparison trends by ethnicity

**Table 4: BSA number of screens and coverage (%) in women aged 50–69 years in the two years ending 31 December 2018 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	5,950	325	895	17,830	25,000	4,287	205	434	12,803	9	17,738	72.1%	63.1%	48.5%	71.8%	71.0%
Waitemata	4,810	3,640	14,035	48,750	71,235	3,044	2,500	9,289	31,366	19	46,218	63.3%	68.7%	66.2%	64.3%	64.9%
Auckland	3,725	4,940	15,805	29,590	54,060	2,199	3,465	10,267	18,240	93	34,264	59.0%	70.1%	65.0%	61.6%	63.4%
Counties Manukau	6,835	9,235	15,405	27,430	58,905	4,553	7,665	10,139	20,110	21	42,488	66.6%	83.0%	65.8%	73.3%	72.1%
Waikato	7,795	915	3,745	36,840	49,295	4,641	557	1,901	27,020	30	34,149	59.5%	60.9%	50.8%	73.3%	69.3%
Lakes	3,535	240	875	9,210	13,860	2,276	152	389	6,796	14	9,627	64.4%	63.3%	44.5%	73.8%	69.5%
Bay of Plenty	5,390	285	1,620	23,815	31,110	3,475	196	677	18,175	20	22,543	64.5%	68.8%	41.8%	76.3%	72.5%
Tairāwhiti	2,415	104	129	3,395	6,043	1,583	56	58	2,383	1	4,081	65.5%	53.8%	45.0%	70.2%	67.5%
Taranaki	1,810	106	515	12,790	15,221	1,146	72	244	9,889	5	11,356	63.3%	67.9%	47.4%	77.3%	74.6%
Hawke's Bay	3,680	420	835	17,425	22,360	2,573	280	407	13,038	16	16,314	69.9%	66.7%	48.7%	74.8%	73.0%
Whanganui	1,605	122	285	6,650	8,662	1,175	81	135	5,459	3	6,853	73.2%	66.4%	47.4%	82.1%	79.1%
MidCentral	2,790	375	1,365	17,740	22,270	1,868	266	751	14,218	6	17,109	67.0%	70.9%	55.0%	80.1%	76.8%
Hutt Valley	2,135	995	2,050	13,025	18,205	1,479	672	1,394	10,041	12	13,598	69.3%	67.5%	68.0%	77.1%	74.7%
Capital and Coast	2,810	1,975	4,740	26,325	35,850	1,880	1,334	2,876	19,904	44	26,038	66.9%	67.5%	60.7%	75.6%	72.6%
Wairarapa	695	68	156	5,510	6,429	477	44	99	4,344	7	4,971	68.6%	64.7%	63.5%	78.8%	77.3%
Nelson Marlborough	1,375	155	660	19,995	22,185	1,010	102	302	16,218	29	17,661	73.5%	65.8%	45.8%	81.1%	79.6%
West Coast	390	25	98	4,145	4,658	269	11	54	3,233	21	3,588	69.0%	44.0%	55.1%	78.0%	77.0%
Canterbury	3,655	920	5,455	58,195	68,225	2,563	588	2,674	45,966	64	51,855	70.1%	63.9%	49.0%	79.0%	76.0%
South Canterbury	410	40	235	7,840	8,525	272	25	67	6,189	6	6,559	66.3%	62.5%	28.5%	78.9%	76.9%
Southern	2,465	345	1,835	36,120	40,765	1,674	212	735	28,114	37	30,772	67.9%	61.4%	40.1%	77.8%	75.5%
Unspecified	0	0			0	156	41	217	1,454	0	1,868					
<b>Total</b>	<b>64,275</b>	<b>25,230</b>	<b>70,738</b>	<b>422,620</b>	<b>582,863</b>	<b>42,600</b>	<b>18,524</b>	<b>43,109</b>	<b>314,960</b>	<b>457</b>	<b>419,650</b>	<b>66.3%</b>	<b>73.4%</b>	<b>60.9%</b>	<b>74.5%</b>	<b>72.0%</b>

**Table 5: BSA coverage (%) of women aged 50–69 years in the two years ending 31 December, 2016, 2017, 2018, by ethnicity and District Health Board**

DHB	Māori			Pacific			Asian			Other			Total		
	Dec-16	Dec-17	Dec-18	Dec-16	Dec-17	Dec-18	Dec-16	Dec-17	Dec-18	Dec-16	Dec-17	Dec-18	Dec-16	Dec-17	Dec-18
Northland	71.3%	71.3%	72.1%	69.1%	64.1%	63.1%	50.8%	46.1%	48.5%	74.5%	73.0%	71.8%	73.0%	71.6%	71.0%
Waitemata	66.2%	64.4%	63.3%	67.4%	66.7%	68.7%	68.0%	64.1%	66.2%	68.0%	66.0%	64.3%	67.8%	65.6%	64.9%
Auckland	58.8%	57.9%	59.0%	72.4%	68.7%	70.1%	69.9%	66.2%	65.0%	62.0%	61.1%	61.6%	65.0%	63.2%	63.4%
Counties Manukau	63.6%	65.7%	66.6%	75.1%	78.5%	83.0%	62.3%	61.9%	65.8%	70.4%	72.7%	73.3%	68.4%	70.1%	72.1%
Waikato	58.8%	59.3%	59.5%	56.0%	58.7%	60.9%	49.0%	47.2%	50.8%	70.5%	73.3%	73.3%	67.1%	69.1%	69.3%
Lakes	61.7%	65.3%	64.4%	58.1%	63.9%	63.3%	45.1%	43.4%	44.5%	71.8%	76.6%	73.8%	67.8%	71.7%	69.5%
Bay of Plenty	61.3%	60.0%	64.5%	69.1%	67.9%	68.8%	47.4%	40.8%	41.8%	74.5%	73.6%	76.3%	71.1%	69.7%	72.5%
Tairāwhiti	67.8%	68.2%	65.5%	64.8%	66.7%	53.8%	46.5%	49.6%	45.0%	73.3%	74.3%	70.2%	70.5%	71.3%	67.5%
Taranaki	61.9%	62.7%	63.3%	62.0%	64.3%	67.9%	47.9%	44.7%	47.4%	76.6%	77.7%	77.3%	74.1%	74.9%	74.6%
Hawke's Bay	68.0%	69.2%	69.9%	66.2%	66.9%	66.7%	55.0%	51.3%	48.7%	75.5%	75.3%	74.8%	73.6%	73.4%	73.0%
Whanganui	72.8%	70.9%	73.2%	73.6%	65.2%	66.4%	58.0%	52.2%	47.4%	80.5%	80.9%	82.1%	78.5%	78.1%	79.1%
MidCentral	66.4%	67.0%	67.0%	67.0%	69.7%	70.9%	60.4%	55.9%	55.0%	79.0%	79.6%	80.1%	76.4%	76.5%	76.8%
Hutt Valley	67.6%	70.0%	69.3%	65.9%	67.4%	67.5%	70.2%	67.2%	68.0%	77.6%	76.3%	77.1%	75.2%	74.2%	74.7%
Capital and Coast	68.2%	68.1%	66.9%	67.6%	68.0%	67.5%	63.4%	60.9%	60.7%	75.4%	75.5%	75.6%	73.1%	72.8%	72.6%
Wairarapa	69.8%	70.6%	68.6%	73.0%	73.8%	64.7%	55.1%	48.3%	63.5%	77.6%	78.7%	78.8%	76.3%	77.2%	77.3%
Nelson Marlborough	75.5%	75.7%	73.5%	67.4%	70.0%	65.8%	46.2%	43.0%	45.8%	81.6%	81.3%	81.1%	80.4%	79.9%	79.6%
West Coast	71.8%	67.2%	69.0%	35.0%	36.0%	44.0%	53.8%	50.6%	55.1%	78.8%	77.1%	78.0%	78.1%	76.0%	77.0%
Canterbury	70.1%	69.9%	70.1%	64.6%	64.3%	63.9%	51.8%	47.4%	49.0%	80.3%	78.9%	79.0%	77.7%	75.9%	76.0%
South Canterbury	66.6%	67.1%	66.3%	48.5%	53.8%	62.5%	26.5%	24.7%	28.5%	80.1%	78.4%	78.9%	78.2%	76.5%	76.9%
Southern	67.3%	67.3%	67.9%	61.6%	60.9%	61.4%	46.2%	40.9%	40.1%	76.8%	76.5%	77.8%	75.1%	74.4%	75.5%
<b>Total</b>	<b>65.5%</b>	<b>65.9%</b>	<b>66.3%</b>	<b>70.6%</b>	<b>71.2%</b>	<b>73.4%</b>	<b>62.7%</b>	<b>59.7%</b>	<b>60.9%</b>	<b>74.4%</b>	<b>74.4%</b>	<b>74.5%</b>	<b>72.1%</b>	<b>71.8%</b>	<b>72.0%</b>