

BSA New Zealand Northland District Health Board Coverage Report

For the period ending
31 March 2020

Citation: Ministry of Health. May 2020. *BSA New Zealand District Health Board Coverage Report: period ending 31 March 2020*. Wellington: Ministry of Health.

Published in May 2020 by the
Ministry of Health
PO Box 5013, Wellington 6145, New Zealand
2422-9350 (online)

This document is available at www.nsu.govt.nz

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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 and are considered priority populations for the programme. 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 has added the number of Asian women screened by DHB and the eligible population to the quarterly reports (tables 4 and 5). Asian women are not at increased risk of developing breast cancer and are not considered to be part of the priority populations for BSA, however in some DHBs they do make up a significant part of the population and monitoring of their screening rates is important 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 months period preceding the report end date and who are eligible for rescreening and returned for a rescreen within 20-27 months. (1 January 2018 to 31 March 2020)

Denominator: Women screened in the 24 months period preceding the report end date who are eligible for rescreening. (1 January 2016 to 31 December 2017)

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 2020 was extracted from the national BreastScreen Aotearoa database (the Database) on 28 April 2020.

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 2020, 31 March 2019 and 31 March 2018 are derived from Statistics New Zealand's District Health Board (DHB) population projections 30 June 2018 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 2020, the denominator is the projected population for 31 March 2019
- 31 March 2019, the denominator is the projected population for 31 March 2018
- 31 March 2018, the denominator is the projected population for 31 March 2017

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

Please note the maps showing coverage by ethnicity (figures 7-9) are not available for the March 2020 reports, and show data from June 2019.

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

Northland coverage

Northland coverage by ethnicity in the two years ending 31 March 2020

Figure 1: BSA coverage (%) in the two years ending 31 March 2020 by ethnicity, women aged 50–69 years, Total Coverage

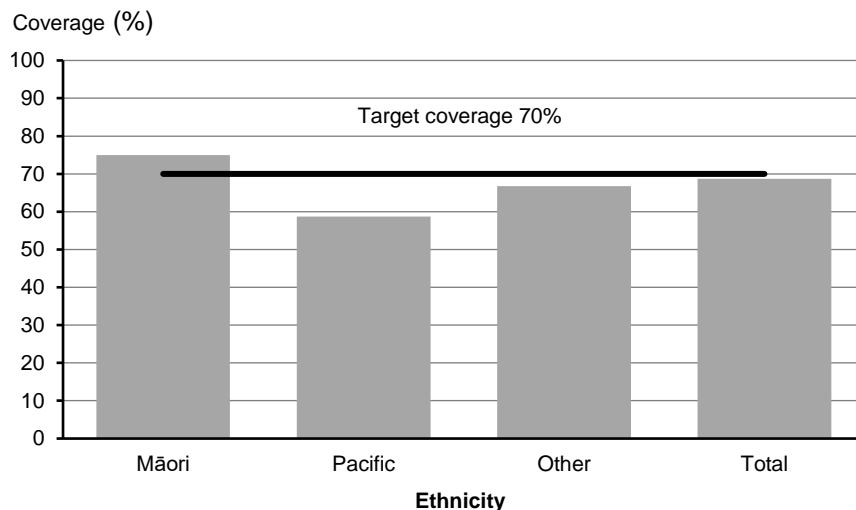


Table 1: BSA coverage (%) in the two years ending 31 March 2020 by ethnicity, women aged 50–69 years, Total Coverage

Ethnicity	Population	Women screened in last 2 years	2-year coverage	Additional screens to reach target*
Māori	6,104	4,579	75.00%	
Pacific	363	213	58.70%	41
Other	18,952	12,660	66.80%	606
Unspecified		8		
Total	25,419	17,460	68.70%	333

*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%.

Northland coverage trends by ethnicity

Figure 2: BSA coverage (%) of women aged 50–69 years in the two years ending 31 March 2018, 2019, 2020 by ethnicity and District Health Board

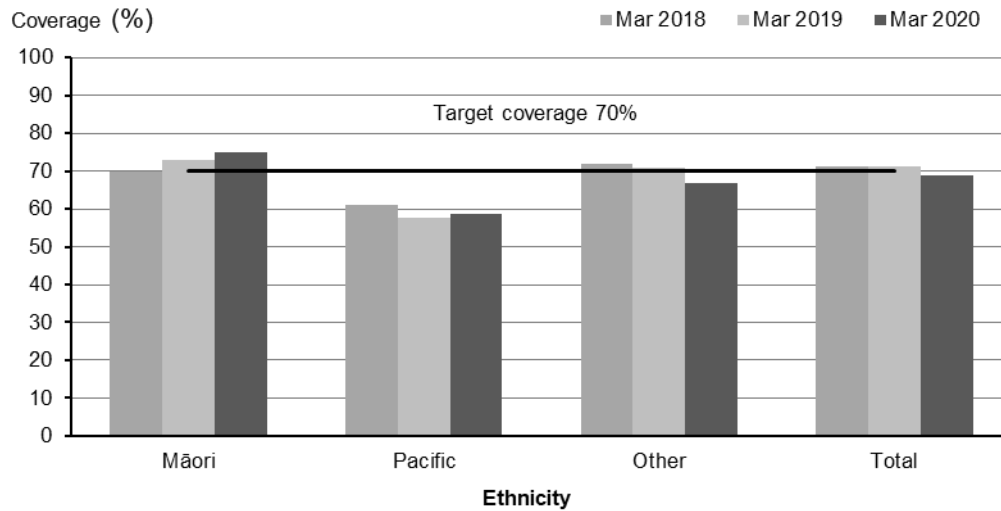


Table 2: BSA number of screens in women aged 50–69 years by ethnicity and quarter, Quarter 2 2018 - Quarter 1 2020

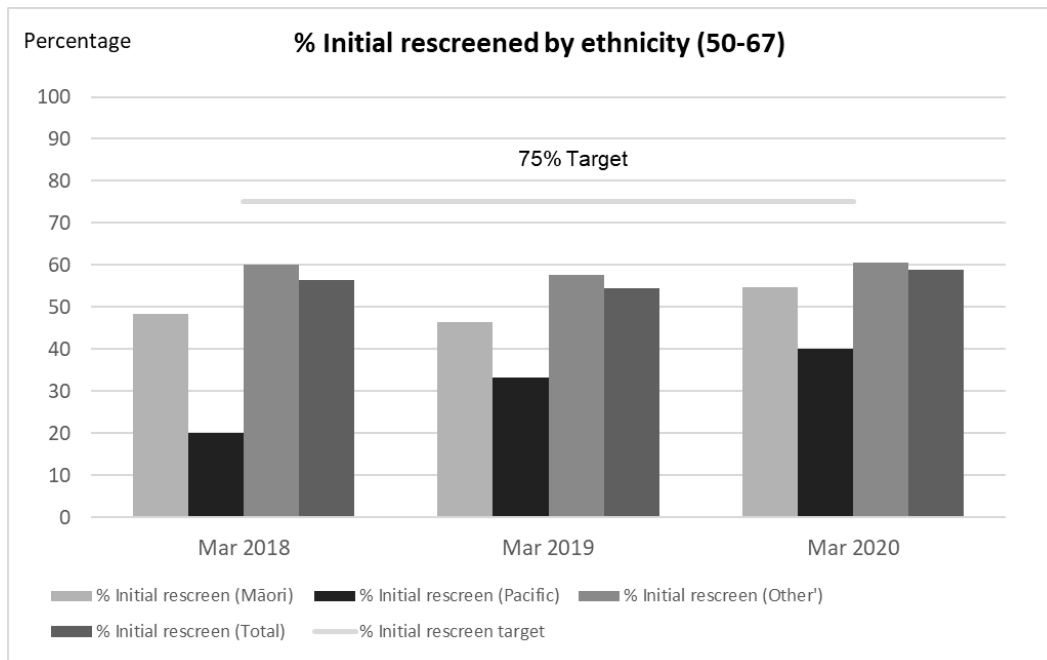
Ethnicity	Number of screens by quarter							
	Q2 (Apr - Jun) 2018	Q3 (Jul - Sep) 2018	Q4 (Oct - Dec) 2018	Q1 (Jan - Mar) 2019	Q2 (Apr - Jun) 2019	Q3 (Jul - Sep) 2019	Q4 (Oct - Dec) 2019	Q1 (Jan - Mar) 2020
Māori	643	551	739	571	549	752	416	556
Pacific	25	30	47	17	29	37	32	20
Other	1,904	1,721	1,752	1,289	1,853	1,574	1,576	1,344
Total	2,572	2,302	2,538	1,877	2,431	2,363	2,024	1,920

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 2018 to 31 March 2020 (eligible period 1 January 2016 to 31 December 2017)

Ethnicity	Number of eligible screens	Number of initial rescreens	%	CI (95%)
Māori	135	74	54.8%	(46.0, 63.4)
Pacific	5	2	40.0%	(5.3, 85.3)
Other	343	208	60.6%	(55.3, 65.8)
Total	483	284	58.8%	(54.3, 63.2)

Figure 3: BSA number of initial eligible rescreens by ethnicity



DHB coverage comparisons

DHB coverage by ethnicity in the two years ending 31 March 2020

Figure 4: BSA coverage (%) of Māori women aged 50–69 years in the two years ending 31 March 2020 by District Health Board

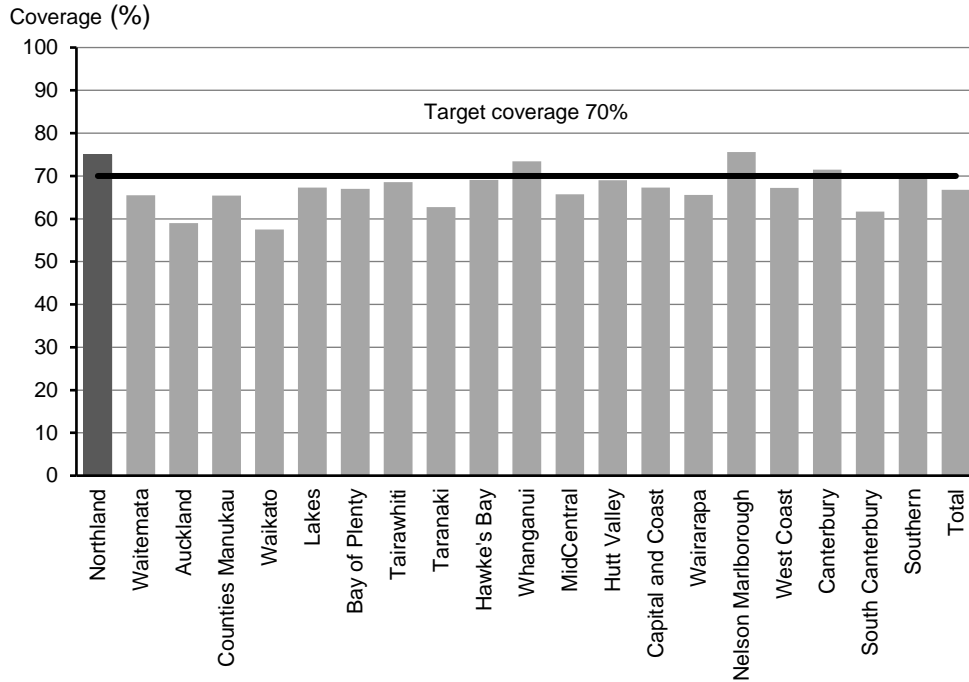


Figure 5: BSA coverage (%) of Pacific women aged 50–69 years in the two years ending 31 March 2020 by District Health Board

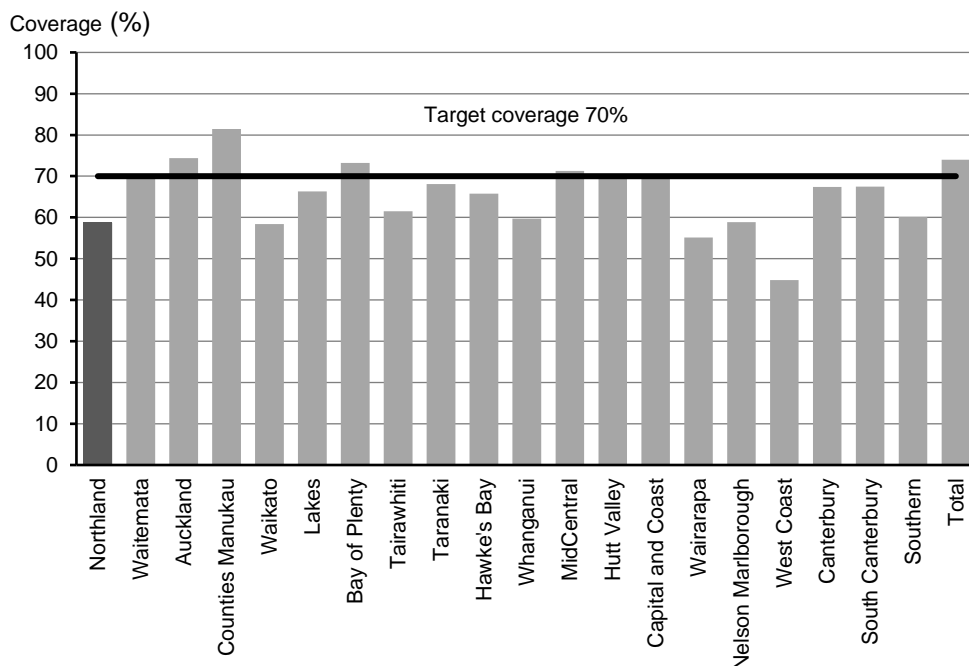


Figure 6: Overall BSA coverage (%) of women aged 50–69 years in the two years ending 31 March 2020 by District Health Board

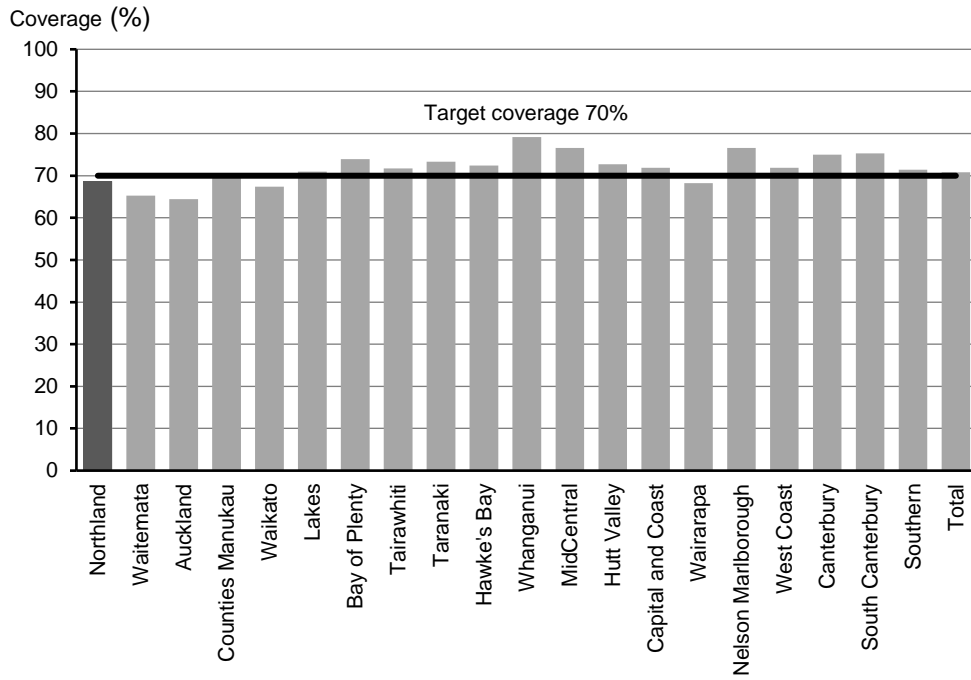


Figure 7: BSA coverage (%) of Māori women aged 50–69 years in the two years ending 30 June 2019 by District Health Board

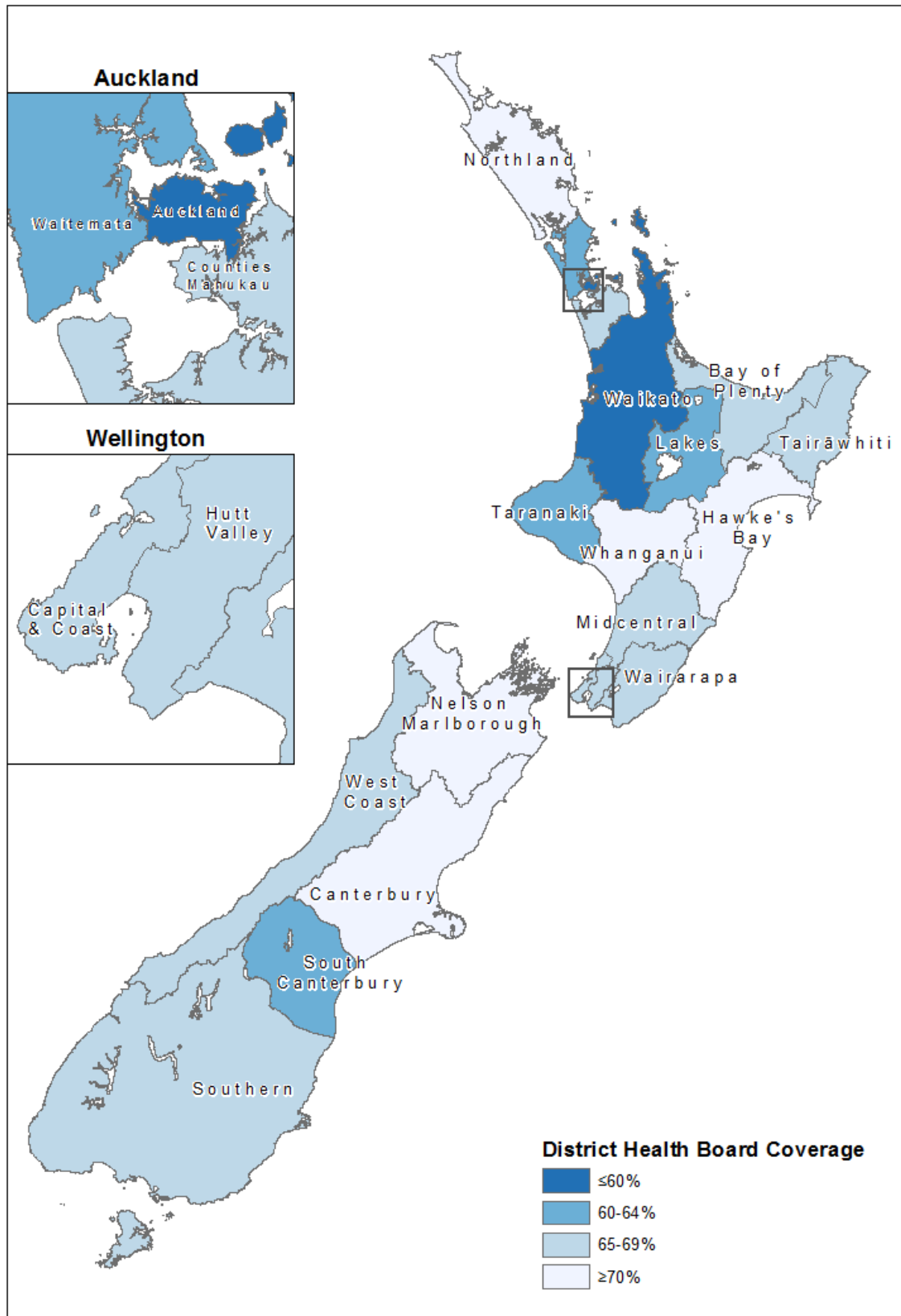


Figure 8: BSA coverage (%) of Pacific women aged 50–69 years in the two years ending 30 June 2019 by District Health Board

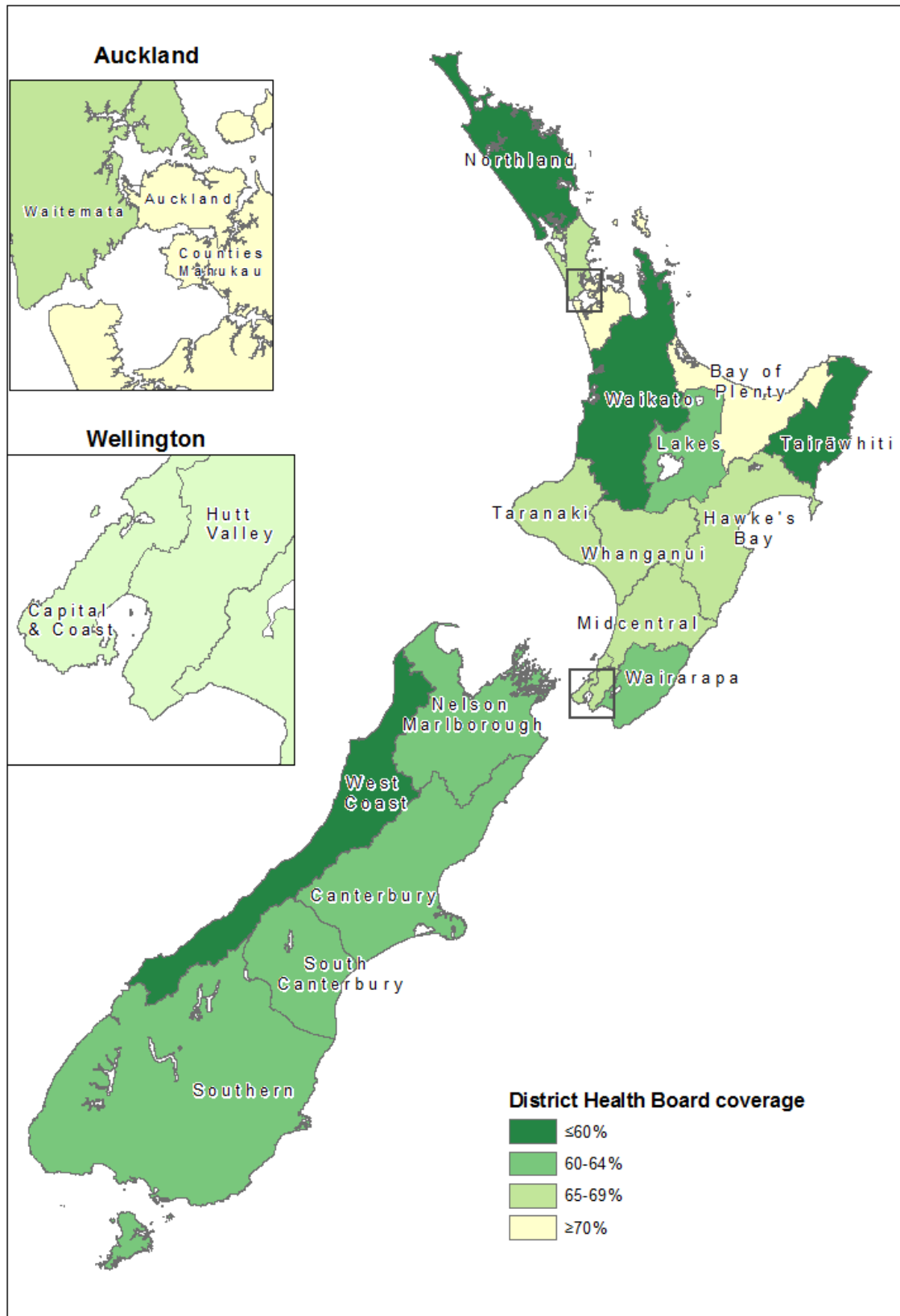


Figure 9: Overall BSA coverage (%) of women aged 50–69 years in the two years ending 30 June 2019 by District Health Board



Table 4: BSA number of screens and coverage (%) in women aged 50–69 years in the two years ending 31 March 2020 by District Health Board

DHB	Eligible Population					Screens						Coverage				
	Māori	Pacific	Asian	Other	Total	Māori	Pacific	Asian	Other	Unspec.	Total	Māori	Pacific	Asian	Other	Total
Northland	6,104	363	1,056	17,896	25,419	4,579	213	436	12,224	8	17,460	75.0%	58.7%	41.3%	68.4%	68.7%
Waitemata	5,032	3,801	15,174	49,416	73,423	3,298	2,676	10,118	31,866	19	47,977	65.5%	70.4%	66.7%	64.5%	65.3%
Auckland	3,891	5,101	17,134	29,393	55,519	2,297	3,796	11,020	18,585	32	35,730	59.0%	74.4%	64.3%	63.3%	64.4%
Counties Manukau	7,103	9,758	16,621	27,189	60,671	4,644	7,939	10,435	19,668	3	42,689	65.4%	81.4%	62.8%	72.3%	70.4%
Waikato	8,056	973	4,175	37,086	50,290	4,631	568	2,033	26,680	6	33,918	57.5%	58.4%	48.7%	72.0%	67.4%
Lakes	3,661	249	981	9,018	13,909	2,464	165	416	6,822	2	9,869	67.3%	66.3%	42.4%	75.7%	71.0%
Bay of Plenty	5,533	291	1,851	23,919	31,594	3,708	213	760	18,651	13	23,345	67.0%	73.2%	41.1%	78.0%	73.9%
Tairāwhiti	2,481	109	138	3,373	6,101	1,702	67	72	2,531	2	4,374	68.6%	61.5%	52.2%	75.1%	71.7%
Taranaki	1,896	113	588	12,826	15,423	1,189	77	253	9,776	12	11,307	62.7%	68.1%	43.0%	76.3%	73.3%
Hawke's Bay	3,774	436	936	17,443	22,589	2,607	287	419	13,039	11	16,363	69.1%	65.8%	44.8%	74.8%	72.4%
Whanganui	1,644	129	336	6,629	8,738	1,206	77	143	5,493	3	6,922	73.4%	59.7%	42.6%	82.9%	79.2%
MidCentral	2,916	383	1,541	17,769	22,609	1,916	273	798	14,327	7	17,321	65.7%	71.3%	51.8%	80.7%	76.6%
Hutt Valley	2,208	1,023	2,269	12,993	18,493	1,523	717	1,425	9,761	10	13,436	69.0%	70.1%	62.8%	75.2%	72.7%
Capital and Coast	2,941	2,023	5,267	26,246	36,477	1,979	1,408	2,969	19,833	40	26,229	67.3%	69.6%	56.4%	75.7%	71.9%
Wairarapa	716	78	183	5,556	6,533	470	43	93	3,843	7	4,456	65.6%	55.1%	50.8%	69.3%	68.2%
Nelson Marlborough	1,443	163	743	19,979	22,328	1,091	96	329	15,578	19	17,113	75.6%	58.9%	44.3%	78.1%	76.6%
West Coast	424	29	100	4,181	4,734	285	13	53	3,034	17	3,402	67.2%	44.8%	53.0%	73.0%	71.9%
Canterbury	3,883	970	6,021	58,539	69,413	2,776	654	2,916	45,638	46	52,030	71.5%	67.4%	48.4%	78.0%	75.0%
South Canterbury	444	40	258	7,831	8,573	274	27	83	6,069	1	6,454	61.7%	67.5%	32.2%	77.5%	75.3%
Southern	2,602	398	2,154	36,184	41,338	1,818	239	749	26,661	29	29,496	69.9%	60.1%	34.8%	73.8%	71.4%
Unspecified DHB						112	23	63	875	0	1,073					
National	66,752	26,430	77,526	423,466	594,174	44,569	19,571	45,619	310,918	287	420,964	66.8%	74.0%	58.8%	73.5%	70.8%

DHB coverage comparison trends by ethnicity

Table 5: BSA coverage (%) of women aged 50–69 years in the two years ending 31 March, 2018, 2019, 2020 by ethnicity and District Health Board

DHB	Māori			Pacific			Asian			Other			Total		
	Mar 2018	Mar 2019	Mar 2020	Mar 2018	Mar 2019	Mar 2020	Mar 2018	Mar 2019	Mar 2020	Mar 2018	Mar 2019	Mar 2020	Mar 2018	Mar 2019	Mar 2020
Northland	69.9%	72.8%	75.0%	60.9%	57.8%	58.7%	47.4%	47.1%	41.3%	73.1%	72.1%	68.4%	71.3%	71.1%	68.7%
Waitemata	65.0%	65.4%	65.5%	66.9%	69.1%	70.4%	66.8%	66.5%	66.7%	64.7%	64.5%	64.5%	65.3%	65.2%	65.3%
Auckland	58.6%	59.5%	59.0%	69.8%	72.0%	74.4%	66.6%	64.9%	64.3%	61.6%	62.4%	63.3%	63.6%	63.9%	64.4%
Counties Manukau	65.2%	66.0%	65.4%	81.1%	84.1%	81.4%	65.0%	64.6%	62.8%	71.8%	73.4%	72.3%	70.8%	71.9%	70.4%
Waikato	59.0%	59.3%	57.5%	58.2%	59.9%	58.4%	50.0%	49.7%	48.7%	73.0%	72.6%	72.0%	68.9%	68.5%	67.4%
Lakes	65.6%	62.3%	67.3%	64.4%	61.8%	66.3%	47.2%	40.4%	42.4%	76.9%	73.1%	75.7%	72.0%	68.0%	71.0%
Bay of Plenty	61.2%	65.5%	67.0%	65.1%	68.8%	73.2%	42.3%	41.0%	41.1%	75.5%	77.2%	78.0%	71.4%	73.2%	73.9%
Tairāwhiti	67.9%	65.6%	68.6%	62.2%	55.8%	61.5%	54.0%	48.1%	52.2%	72.9%	72.8%	75.1%	70.4%	69.1%	71.7%
Taranaki	62.6%	62.8%	62.7%	59.6%	68.3%	68.1%	46.0%	45.2%	43.0%	77.8%	77.4%	76.3%	74.9%	74.5%	73.3%
Hawke's Bay	70.4%	70.6%	69.1%	66.4%	69.1%	65.8%	51.4%	46.8%	44.8%	74.8%	75.4%	74.8%	73.1%	73.4%	72.4%
Whanganui	72.2%	73.6%	73.4%	65.5%	62.6%	59.7%	46.1%	43.0%	42.6%	81.8%	83.0%	82.9%	78.7%	79.6%	79.2%
MidCentral	66.7%	66.9%	65.7%	68.4%	68.7%	71.3%	55.1%	53.2%	51.8%	79.9%	80.3%	80.7%	76.6%	76.7%	76.6%
Hutt Valley	69.4%	69.6%	69.0%	66.0%	67.7%	70.1%	64.4%	66.8%	62.8%	73.8%	77.7%	75.2%	71.9%	75.0%	72.7%
Capital and Coast	68.0%	67.2%	67.3%	68.2%	68.9%	69.6%	61.5%	59.1%	56.4%	76.0%	75.4%	75.7%	73.2%	72.3%	71.9%
Wairarapa	70.7%	66.8%	65.6%	69.2%	62.3%	55.1%	55.4%	58.5%	50.8%	76.4%	79.3%	69.3%	75.3%	77.3%	68.2%
Nelson Marlborough	74.5%	74.1%	75.6%	67.1%	61.6%	58.9%	45.3%	47.6%	44.3%	81.2%	81.6%	78.1%	79.8%	80.0%	76.6%
West Coast	63.1%	66.9%	67.2%	40.0%	60.0%	44.8%	52.2%	54.5%	53.0%	73.5%	72.8%	73.0%	72.5%	72.2%	71.9%
Canterbury	67.9%	70.2%	71.5%	63.5%	62.7%	67.4%	50.6%	49.8%	48.4%	79.4%	80.0%	78.0%	76.5%	76.8%	75.0%
South Canterbury	66.6%	60.1%	61.7%	59.0%	62.5%	67.5%	31.5%	30.3%	32.2%	78.0%	76.8%	77.5%	76.2%	74.6%	75.3%
Southern	68.7%	68.1%	69.9%	62.2%	60.1%	60.1%	40.4%	39.3%	34.8%	77.6%	78.3%	73.8%	75.4%	75.8%	71.4%
National	65.8%	66.4%	66.8%	72.2%	74.1%	74.0%	61.5%	60.3%	58.8%	74.4%	74.7%	73.5%	71.9%	72.0%	70.8%