



Prepared by:

Kahui tuitui tangata

---

# **DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT**

**1 APRIL TO 30 JUNE 2019**

---

## *Health Workforce Information*

The Health Workforce Information Programme (HWIP) is a well-established programme within Technical Advisory Services (TAS) and supports the District Health Boards (DHBs) through providing base information on DHB employee demographics, competencies and describing the current composition of the DHB workforce. Regular reports are based on a quarterly collection of data from the DHBs. DHB employee data has been collected on a quarterly basis since mid-2006 with a continued focus on improving data quality.

## *Purpose of the Report*

This report covers all DHB employees for the period 1 April 2019 to 30 June 2019 and is a snapshot in time at 30 June 2019. The report provides information on the general make up and characteristics of the DHB health and disability workforce to help inform further data analysis and workforce planning. The format of the report is to provide tables and graphs on the demographics of the DHB workforce aligned to the seven occupational groupings. These groupings are:

- Senior Medical Officer (SMO)
- Resident Medical Officer (RMO)
- Nursing
- Midwifery
- Allied & scientific (the amalgamation of Allied Health and Technical and Scientific)
- Care and support
- Corporate and other

## *Data Extraction*

Important notes about the data extraction:

- The data extract used for this report covers the period April 2019 to June 2019 inclusive and is a snapshot taken by the DHBs on 30 June 2019.
- The data quality continues to improve through working closely with the DHBs to help manage and improve the data submitted.

## *Disclaimer*

While due care has been applied in the processing, analysing and extraction of data and information to ensure the accuracy of the work, TAS provides no warranty as to the accuracy, authenticity or validity of the data and information and/or that it is supplied free from error. TAS is not liable whatsoever, including for negligence or defamation, for all and any damages or liability in respect of or arising out of use, reliance or otherwise for this work, whether direct or indirect, including the provision of any incorrect, inaccurate or incomplete information.

Contact: [HWIP@tas.health.nz](mailto:HWIP@tas.health.nz)

Data source: DHB Workforce Information, held by TAS.

## TABLE OF CONTENTS

TABLE OF CONTENTS.....	3
TABLE OF FIGURES.....	3
TABLE OF TABLES.....	3
<b>OVERVIEW .....</b>	<b>4</b>
DHB WORKFORCE AT A GLANCE.....	4
DISTRIBUTION OF EMPLOYEES .....	5
INCLUSIONS AND EXCLUSIONS.....	6
HEADCOUNT AND FTE BY DHB AND OCCUPATION GROUP .....	7
<b>TABLES AND CHARTS BY OCCUPATION GROUPING.....</b>	<b>8</b>
HEADCOUNT AND FTE BY OCCUPATION GROUPING AND GENDER.....	8
HEADCOUNT BY OCCUPATION GROUP AND ETHNICITY.....	9
AGES AND LENGTH OF SERVICE.....	11
<b>TABLES AND CHARTS BY DHB.....</b>	<b>12</b>
COUNT OF EMPLOYEES AND MEAN FTE BY GENDER AND DHB.....	12
MEAN AGES AND MEAN LENGTH OF SERVICE BY DHB AND GENDER.....	13
ETHNICITIES BY DHB.....	14
<b>ANALYSIS BY DHB AND OCCUPATION GROUP .....</b>	<b>15</b>
LENGTH OF SERVICE BY OCCUPATION GROUP AND DHB .....	15
<b>ANALYSIS BY SICK LEAVE &amp; ANNUAL LEAVE .....</b>	<b>16</b>
SICK LEAVE BY DHB, OCCUPATION GROUP, AGE GROUP AND ETHNICITY BY GENDER.....	16
RATIO OF ANNUAL LEAVE BALANCE AND ANNUAL LEAVE ENTITLEMENT BY DHB, OCCUPATION GROUP AND ETHNICITY BY GENDER .....	18
<b>ANALYSIS BY POPULATION .....</b>	<b>20</b>
DISTRIBUTION OF OVERALL DHB EMPLOYEES BY AGE, WITH NATIONAL EMPLOYEE DATA .....	20
ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION .....	21
POPULATION DENSITY BY OCCUPATIONAL GROUP AND DHB.....	22

## TABLE OF FIGURES

Figure 1: Count of employees.....	5
Figure 2: Occupation group headcount and mean FTE by gender .....	8
Figure 3: Proportion of ethnicities by occupation group .....	9
Figure 4: Proportion of identifiable ethnicities for all DHB employees.....	10
Figure 5: Proportion of identifiable ethnicities for projected population data at 31 December 2018.....	10
Figure 6: Mean ages and length of service by occupation group and gender.....	11
Figure 7: Headcount and mean FTE by gender and DHB .....	12
Figure 8: Mean ages and mean length of service by DHB and gender.....	13
Figure 9: Proportion of reported ethnicities by DHB.....	14
Figure 10: Average annualized sick leave hours per FTE by DHB .....	16
Figure 11: Average annual sick leave hours per FTE by occupational group.....	17
Figure 13: Average annual sick leave hours per FTE by ethnicity by gender.....	17
Figure 14: Ratio of annual leave balance to annual leave entitlement hours per FTE by DHB.....	18
Figure 15: Ratio of annual leave balance to annual leave entitlement hours per FTE by occupational group.....	19
Figure 16: Ratio of annual leave balance to annual leave entitlement hours per FTE by ethnicity by gender .....	19
Figure 17: Distribution of overall DHB employees by age, with national employee data .....	20
Figure 18: Population density of Nurses by DHB .....	22
Figure 19: Population density of Corporate & Other by DHB .....	22
Figure 20: Population density of Allied & Scientific by DHB .....	23
Figure 21: Population density of Care & Support by DHB.....	23
Figure 22: Population density of Senior Medical Officer (SMO) by DHB.....	24
Figure 23: Population density of Resident Medical Officer (RMO) by DHB.....	24
Figure 24: Population density of Midwives by DHB.....	25
Figure 25: Population density of all DHB staff by DHB.....	25

## TABLE OF TABLES

Table 1: Distribution of employment types.....	5
Table 2: Headcount and FTE by DHB and occupation group.....	7
Table 3: Occupation group headcount and mean FTE by gender .....	8
Table 4: Count and proportion of ethnicities by occupation group.....	9
Table 5: Mean ages and length of service by occupation group and gender.....	11
Table 6: Headcount and mean FTE by gender and DHB .....	12
Table 7: Mean ages and mean length of service by DHB and gender .....	13
Table 8: Distribution of reported ethnicities by DHB.....	14
Table 9: Mean length of service by occupation group and DHB.....	15

# OVERVIEW

## DHB WORKFORCE AT A GLANCE

For data to 30 June 2019, only those employed with contracted hours greater than zero are included in the analysis except for the tables and charts that explicitly report on 'Other' employees on page 5. 'Other' include those on maternity / parental leave, and those who have not been reported with an employment status code.

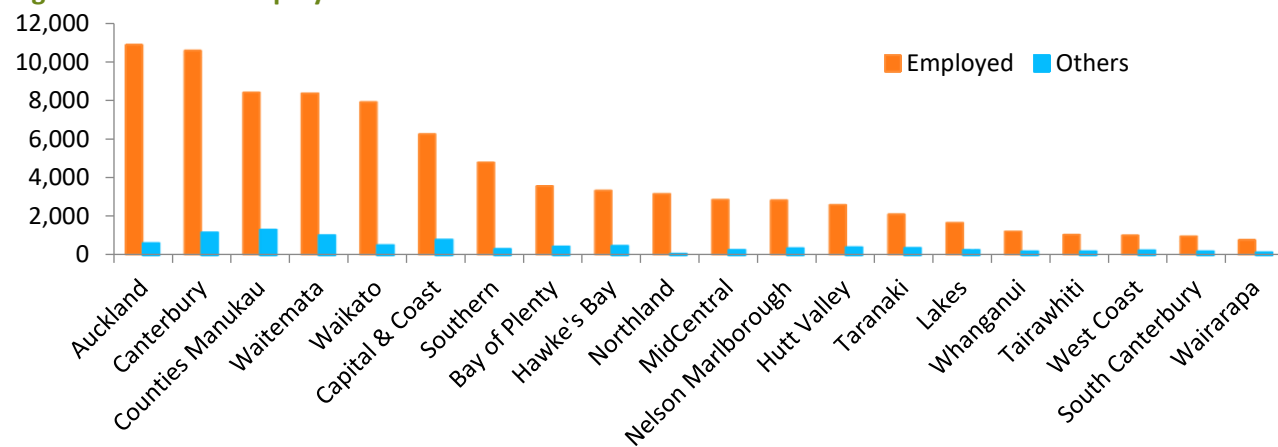
<p><b>Total employees 75,149</b>  <b>59,043 female</b>  <b>16,106 male</b></p>	<p><b>63,413 FTE</b>  <b>48,652 FTE* females</b>  <b>14,761 FTE* males</b></p>	<p><b>Largest occupation group:</b>  <b>Nurses – 28,792</b>  <b>Smallest occupation group:</b>  <b>Midwives – 1,526</b></p>
<p><b>DHB employee average age 45.2 years</b>  <b>45.3 years for females</b>  <b>45.0 years for males</b></p>	<p><b>Oldest male occupation group:</b>  <b>SMO (mean age 51.4 years)</b>  <b>Youngest male occupation group:</b>  <b>RMO (mean age 31.1 years)</b></p>	<p><b>Oldest female occupation groups:</b>  <b>Corporate and other (mean age 50.1 years)</b>  <b>Youngest female occupation group:</b>  <b>RMO (mean age 30.7 years)</b></p>
<p><b>Mean FTE rate 0.84</b>  <b>Mean FTE rate for females 0.82</b>  <b>Mean FTE rate for males 0.92</b></p>	<p><b>Longest Length of Service occupation group</b>  <b>SMO (mean 10.1 years)</b>  <b>Shortest Length of Service occupation group</b>  <b>RMO (mean 1.3 years)</b></p>	<p><b>Employee reported ethnicities:</b></p> <p><b>Other** – 67.4%</b>  <b>Asian – 20.2%</b>  <b>Māori – 8.1%</b>  <b>Pacific – 4.3%</b></p>

- \* Contracted FTE (using a 2086 hour annual contract):  
 N.B. local (DHB and / or occupation) interpretations of a 'full time equivalent' can vary. For example; a sonographer may be classed as 1.0 full time employee in one DHB where they are contracted to work 35 hours per week, whereas another sonographer in a different DHB may be classed as 1.0 full time employee where they are contracted to work 40 hours per week. The Contracted FTE definition used here allows a comparison to be made across DHBs and occupations through a universal standard.
- \*\* To allow direct comparisons with reported ethnicity data from Statistics New Zealand, we have amalgamated ethnicities not associated with Asian, Māori or Pacific into the group 'Other'.

## DISTRIBUTION OF EMPLOYEES

This chart shows the number of employees within each DHB who are classed as either Employees (contracted hours greater than zero) or 'Other' (all others including those on maternity / parental leave, and those who have not been reported with an employment status code). The chart has been ordered in descending order of DHB workforce size. The table below the chart gives the actual count of employees.

**Figure 1: Count of employees**



**Table 1: Distribution of employment types**

DHB	Employed	Others	Total	Proportion of DHB workforce
Auckland	10,286	579	10,865	12.9%
Canterbury	9,456	1,103	10,559	12.6%
Counties Manukau	7,175	1,236	8,411	10.0%
Waitemata	7,374	972	8,346	9.9%
Waikato	7,432	479	7,911	9.4%
Capital & Coast	5,481	760	6,241	7.4%
Southern	4,468	309	4,777	5.7%
Bay of Plenty	3,135	419	3,554	4.2%
Hawke's Bay	2,852	458	3,310	3.9%
Northland	3,075	71	3,146	3.7%
MidCentral	2,594	260	2,854	3.4%
Nelson Marlborough	2,481	337	2,818	3.4%
Hutt Valley	2,193	389	2,582	3.1%
Taranaki	1,737	354	2,091	2.5%
Lakes	1,410	247	1,657	2.0%
Whanganui	1,020	190	1,210	1.4%
Tairāwhiti	843	190	1,033	1.2%
West Coast	766	245	1,011	1.2%
South Canterbury	767	180	947	1.1%
Wairarapa	604	142	746	0.9%
<b>Grand Total</b>	<b>75,149</b>	<b>8,920</b>	<b>84,069</b>	<b>100.0%</b>

## INCLUSIONS AND EXCLUSIONS

Specific caveats and definitions relevant to charts and tables have been provided throughout the report and should be noted. Additionally, all charts and tables that follow in this document are derived from data using the following caveats:

### Inclusions:

- Only employees who have positive contract hours have been included; those with zero contract hours or are classified as on parental leave or leave without pay have been excluded.
- Charts containing 'Age' include all employees who have a calculated age between 15 and 99.

### Exclusions:

- Data has been excluded when it does not match the reporting variable standard format (i.e. if a gender code has not been assigned then the employee will be excluded from that chart or table).
- For privacy reasons some data has been suppressed for numbers less than five.
- Any employee who has an employment end date entered (before or during the reporting quarter) has also been excluded since they left employment before the end of the reporting quarter.
- Charts containing 'ethnicity', exclude employees who do not have a valid ethnicity code.

### Calculations:

- Percentage sick leave hours is calculated by dividing the number of sick leave hours taken by the contracted hours (excluding those with zero contracted hours). It excludes staff who started or terminated employment in the reporting quarter.
- Annual leave balance to entitlement calculations exclude staff who started or terminated employment in the reporting quarter and those staff who have no reported entitlement to annual leave.
- Because of the way start dates are reported the length of service is most likely to be based on the length of service within the DHB rather than the length of service of the reported position.

## HEADCOUNT AND FTE BY DHB AND OCCUPATION GROUP

The following table shows the headcount of employees by their occupation grouping and DHB. It also includes columns for full-time equivalent counts (Contracted FTE, using a 2086 hour annual contract) and mean FTE (the average FTE calculation for all employees). Employees who do not have a contract of more than zero hours are excluded.

**Table 2: Headcount and FTE by DHB and occupation group**

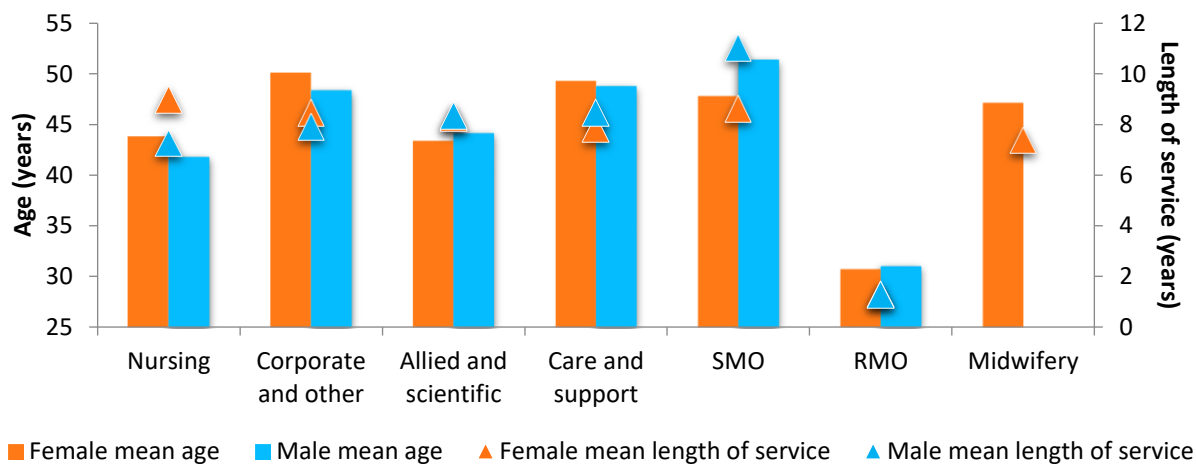
DHB	Nursing			Corporate and other			Allied & scientific			Care and support			SMO			RMO			Midwifery		
	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE
Auckland	3747	3199.6	0.85	1928	1719.7	0.89	2017	1765.4	0.88	717	668.5	0.93	1092	883.3	0.81	615	607.7	0.99	170	129.1	0.76
Bay of Plenty	1267	966.4	0.76	630	555.6	0.88	465	392.1	0.84	309	257.2	0.83	223	184.0	0.83	183	180.8	0.99	58	39.7	0.68
Canterbury	3624	2992.9	0.83	1992	1748.5	0.88	1618	1336.9	0.83	969	769.5	0.79	598	506.3	0.85	531	518.5	0.98	124	82.4	0.66
Capital & Coast	2294	1839.8	0.80	1125	1031.3	0.92	733	631.2	0.86	413	360.0	0.87	418	333.3	0.80	380	370.3	0.97	118	80.8	0.68
Counties Manukau	2720	2309.4	0.85	1349	1153.1	0.85	1147	995.2	0.87	760	668.6	0.88	561	469.8	0.84	413	404.5	0.98	225	168.9	0.75
Hawke's Bay	1119	796.5	0.71	598	514.9	0.86	464	379.2	0.82	308	241.2	0.78	153	132.4	0.87	139	138.7	1.00	71	42.4	0.60
Hutt Valley	742	602.6	0.81	482	440.6	0.91	352	291.7	0.83	252	220.2	0.87	155	119.7	0.77	168	159.3	0.95	42	28.8	0.69
Lakes	562	437.4	0.78	312	280.2	0.90	188	159.5	0.85	125	103.2	0.83	100	90.1	0.90	85	85.0	1.00	38	26.8	0.71
MidCentral	1047	861.4	0.82	624	573.4	0.92	352	312.1	0.89	188	154.4	0.82	168	150.2	0.89	158	157.4	1.00	57	38.7	0.68
Nelson Marlborough	822	606.3	0.74	558	461.5	0.83	347	260.6	0.75	459	324.5	0.71	156	123.9	0.79	95	94.6	1.00	44	28.9	0.66
Northland	1199	919.5	0.77	582	514.2	0.88	464	391.9	0.84	435	331.6	0.76	207	198.2	0.96	120	118.1	0.98	68	43.7	0.64
South Canterbury	320	246.0	0.77	167	128.0	0.77	96	74.9	0.78	73	54.0	0.74	63	45.1	0.72	26	25.9	1.00	22	16.6	0.75
Southern	1866	1483.3	0.79	855	760.0	0.89	675	578.3	0.86	367	289.7	0.79	323	255.5	0.79	303	296.4	0.98	79	53.9	0.68
Tairāwhiti	323	254.1	0.79	202	182.1	0.90	117	95.0	0.81	91	75.1	0.83	63	54.6	0.87	25	24.7	0.99	22	17.2	0.78
Taranaki	656	502.5	0.77	392	348.6	0.89	240	194.3	0.81	195	163.4	0.84	134	113.9	0.85	89	87.7	0.99	31	23.5	0.76
Waikato	2859	2406.3	0.84	1635	1459.6	0.89	1065	932.8	0.88	871	747.3	0.86	443	391.1	0.88	427	420.2	0.98	132	96.4	0.73
Wairarapa	276	192.5	0.70	127	103.4	0.81	68	48.5	0.71	67	44.3	0.66	32	28.5	0.89	15	14.4	0.96	19	12.9	0.68
Waitemata	2602	2211.4	0.85	1363	1187.6	0.87	1374	1136.4	0.83	989	875.3	0.89	529	449.4	0.85	346	336.2	0.97	171	110.1	0.64
West Coast	319	268.7	0.84	167	141.3	0.85	82	73.6	0.90	146	101.9	0.70	31	26.2	0.85	10	10.0	1.00	11	7.9	0.72
Whanganui	428	347.4	0.81	217	190.8	0.88	142	118.7	0.84	116	94.2	0.81	53	48.2	0.91	40	39.8	0.99	24	19.4	0.81
<b>Grand Total</b>	<b>28792</b>	<b>23444.0</b>	<b>0.81</b>	<b>15305</b>	<b>13494.5</b>	<b>0.88</b>	<b>12006</b>	<b>10168.3</b>	<b>0.85</b>	<b>7850</b>	<b>6544.0</b>	<b>0.83</b>	<b>5502</b>	<b>4603.5</b>	<b>0.84</b>	<b>4168</b>	<b>4090.3</b>	<b>0.98</b>	<b>1526</b>	<b>1068.2</b>	<b>0.70</b>

# TABLES AND CHARTS BY OCCUPATION GROUPING

## HEADCOUNT AND FTE BY OCCUPATION GROUPING AND GENDER

The bars represent the headcount (left hand axis) of employees by gender and occupation grouping, and the triangles represent the average FTE for those employees (right hand axis), also by gender and occupation grouping.

**Figure 2: Occupation group headcount and mean FTE by gender**



**Table 3: Occupation group headcount and mean FTE by gender**

Occupation group	Female		Male		Total	
	Headcount	Mean FTE	Headcount	Mean FTE	Headcount	Mean FTE
Nursing	25,506	0.80	3,286	0.89	28,792	0.81
Corporate and other	11,996	0.86	3,309	0.95	15,305	0.88
Allied and scientific	9,759	0.83	2,247	0.93	12,006	0.85
Care and support	5,941	0.81	1,909	0.89	7,850	0.83
SMO	2,142	0.80	3,360	0.86	5,502	0.84
RMO	>2,170	0.97	>1,990	0.99	4,168	0.98
Midwifery	>1,520	0.70	**	**	1,526	0.70
<b>Grand Total</b>	<b>59,043</b>	<b>0.82</b>	<b>16,106</b>	<b>0.92</b>	<b>75,149</b>	<b>0.84</b>

\*\* Data suppressed (headcounts less than 5)

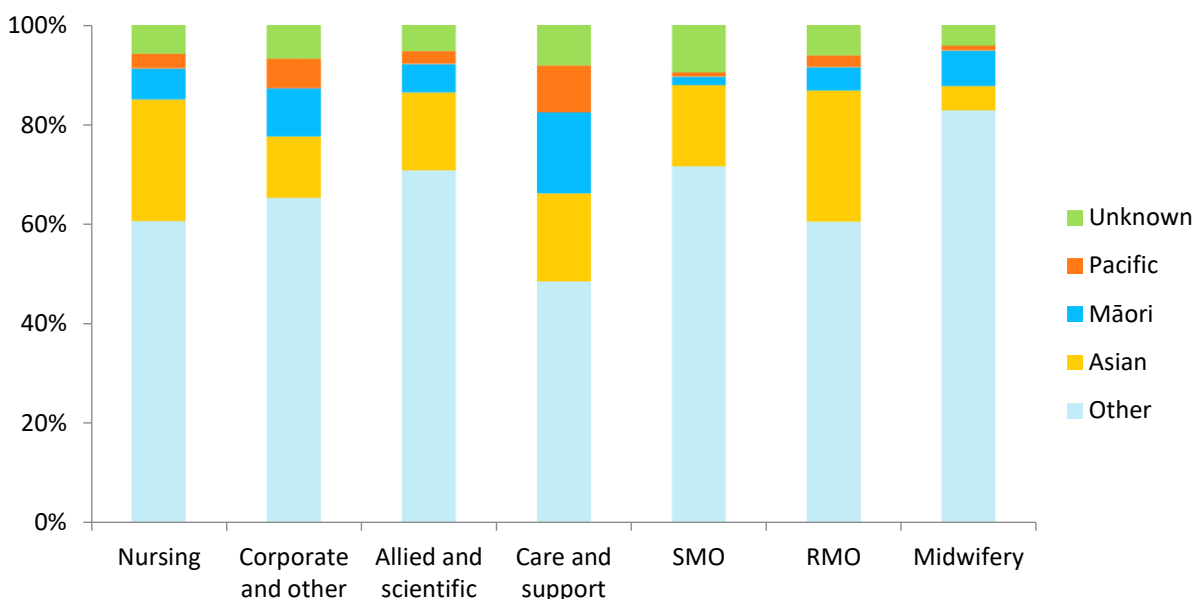


## HEADCOUNT BY OCCUPATION GROUP AND ETHNICITY

This chart shows the proportion (not the actual count of employees) of ethnicities reported within each occupation group. The table below details the actual count of employees for whom an ethnicity was reported.

The pie chart, on the next page, shows the distribution of all reported ethnicities for all DHBs.

**Figure 3: Proportion of ethnicities by occupation group**



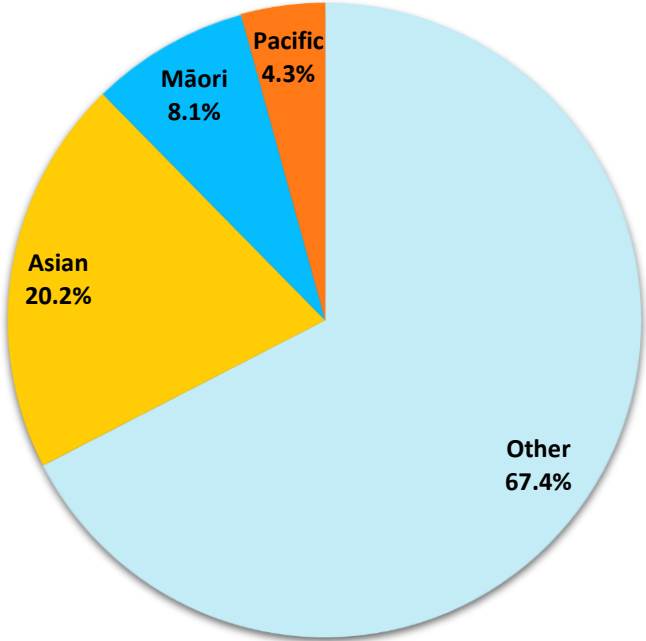
**Table 4: Count and proportion of ethnicities by occupation group**

Occupation group	Other*		Asian		Māori		Pacific		Unknown		Total
<b>Nursing</b>	17,471	60.7%	7,020	24.4%	1,806	6.3%	878	3.0%	1,617	5.6%	28,792
<b>Corporate and other</b>	9,991	65.3%	1,893	12.4%	1,501	9.8%	905	5.9%	1,015	6.6%	15,305
<b>Allied and scientific</b>	8,504	70.8%	1,880	15.7%	686	5.7%	317	2.6%	619	5.2%	12,006
<b>Care and support</b>	3,812	48.6%	1,384	17.6%	1,297	16.5%	734	9.3%	623	7.9%	7,8510
<b>SMO</b>	3,939	71.6%	902	16.4%	96	1.7%	54	1.0%	511	9.3%	5,502
<b>RMO</b>	2,524	60.6%	1,097	26.3%	197	4.7%	101	2.4%	249	6.0%	4,168
<b>Midwifery</b>	1,264	82.8%	76	5.0%	108	7.1%	16	1.0%	62	4.1%	1,526
<b>Grand Total</b>	47,505	63.2%	14,252	19.0%	5,691	7.6%	3,005	4.0%	4,696	6.2%	75,149

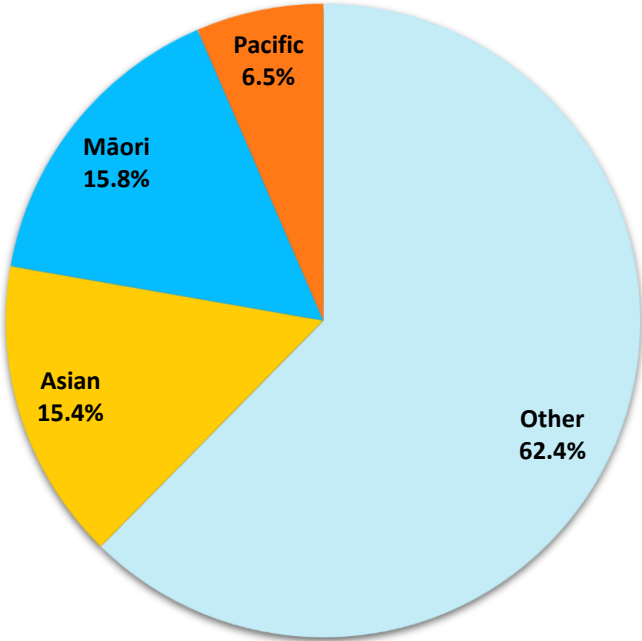
\* 'Other' is a group amalgamation of all ethnicities that do not fall into the groups Asian, Māori or Pacific.

This pie chart is based on the 70,453 permanent employees who declared their ethnicity as Asian, Māori, Pacific or Other. Below this is a similar pie chart of ethnicity proportions in the New Zealand population based on projections of population data by Statistics New Zealand for 30 June 2019.

**Figure 4: Proportion of identifiable ethnicities for all DHB employees**



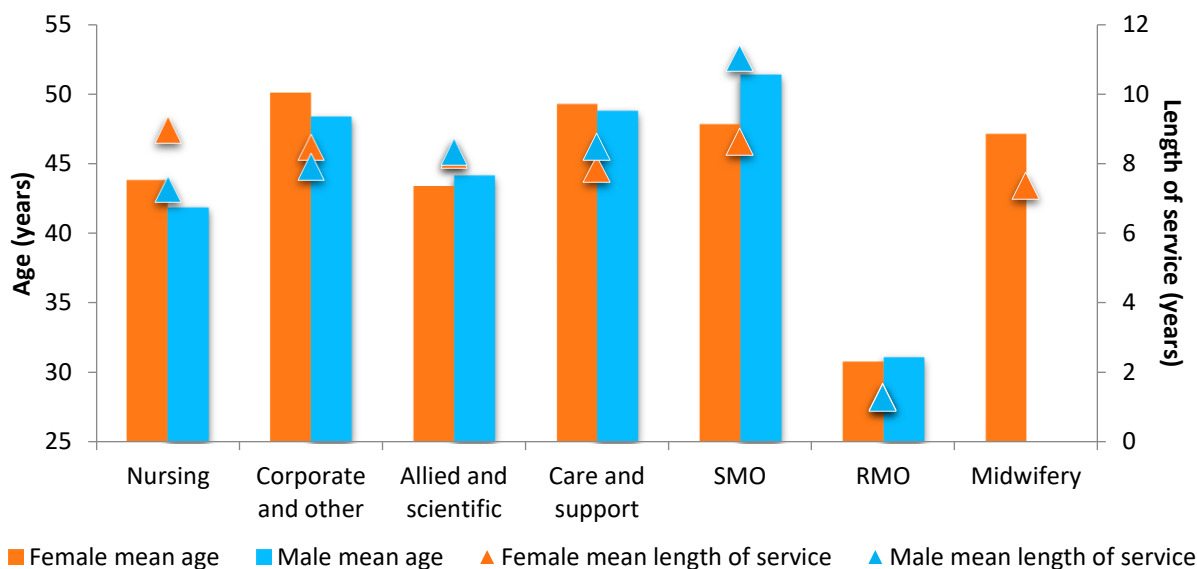
**Figure 5: Proportion of identifiable ethnicities for projected population data at 30 June 2019**



## AGES AND LENGTH OF SERVICE

**Figure 6: Mean ages and length of service by occupation group and gender**

The bars in this chart show the average age (left hand axis) for each occupation group by gender. The triangles represent the average length of service (right hand axis), also by occupation group and gender.



The following table gives the actual figures behind the chart above.

**Table 5: Mean ages and length of service by occupation group and gender**

Occupation group	Female		Male		Total	
	Mean length of service	Mean age	Mean length of service	Mean age	Mean length of service	Mean age
Nursing	9.0	43.8	7.3	41.8	8.8	43.6
Corporate and other	8.5	50.1	7.9	48.4	8.4	49.7
Allied and scientific	8.2	43.3	8.4	44.2	8.3	43.5
Care and support	7.8	49.2	8.5	48.8	8.0	49.1
SMO	8.6	47.8	11.0	51.4	10.1	50.0
RMO	1.3	30.7	1.3	31.1	1.3	30.9
Midwifery	7.4	47.1	12.5	49.3	7.4	47.1
<b>Grand Total</b>	<b>8.3</b>	<b>45.3</b>	<b>7.7</b>	<b>45.0</b>	<b>8.2</b>	<b>45.2</b>

# TABLES AND CHARTS BY DHB

This section looks at the same statistics given in the first section but broken down by DHB rather than occupation group. Page 7 has a table of figures for FTE and headcount which looks at both DHB and occupation grouping.

## COUNT OF EMPLOYEES AND MEAN FTE BY GENDER AND DHB

This chart examines the number (headcount) of employees by gender and DHB (left hand axis). The DHBs have been ordered in descending size of employee headcount. The right hand axis refers to the mean FTE for all employees (by DHB and gender). The following table shows the count of employees and mean FTE by gender for each DHB.

Figure 7: Headcount and mean FTE by gender and DHB

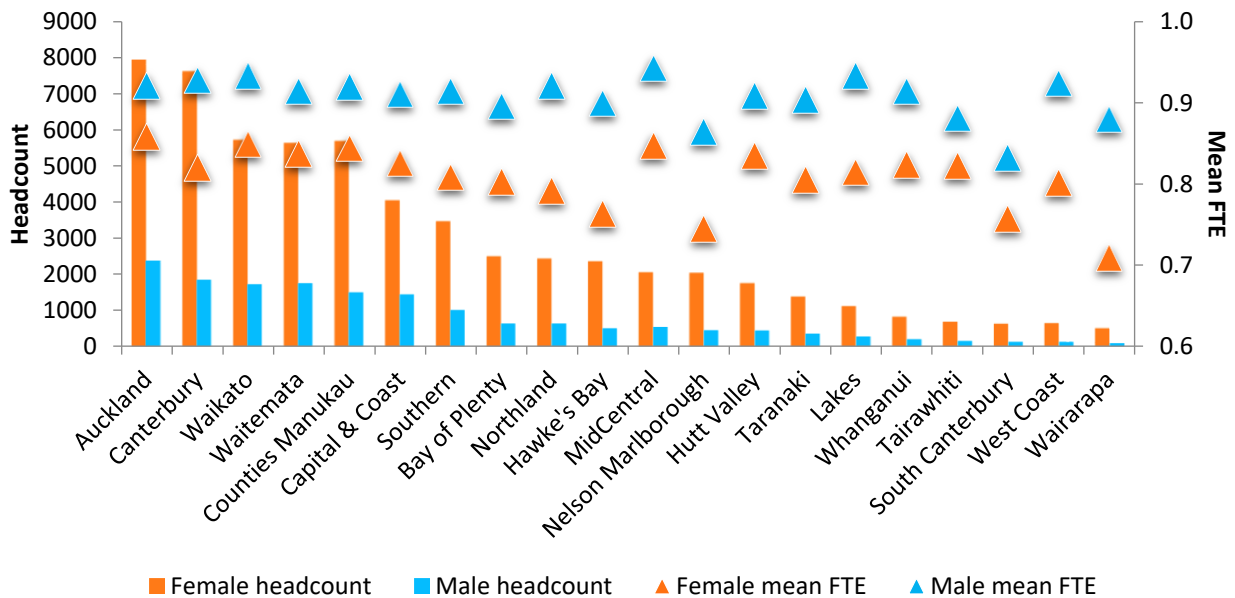


Table 6: Headcount and mean FTE by gender and DHB

	Auckland	Canterbury	Waikato	Waitemata	Counties Manukau	Capital & Coast	Southern	Bay of Plenty	Northland	Hawke's Bay	MidCentral	Nelson Marlborough	Hutt Valley	Taranaki	Lakes	Whanganui	Tairāwhiti	South Canterbury	West Coast	Wairarapa	
Female	Headcount	7933	7621	5723	5630	5688	4044	3464	2498	2438	2353	2059	2037	1755	1384	1126	818	686	636	640	510
	Mean FTE	0.86	0.82	0.85	0.84	0.84	0.83	0.81	0.80	0.79	0.76	0.85	0.74	0.83	0.81	0.81	0.82	0.82	0.76	0.80	0.71
Male	Headcount	2353	1835	1709	1744	1487	1437	1004	637	637	499	535	444	438	353	284	202	157	131	126	94
	Mean FTE	0.92	0.93	0.93	0.91	0.92	0.91	0.91	0.90	0.92	0.90	0.94	0.86	0.91	0.90	0.93	0.91	0.88	0.83	0.92	0.88
Total	Headcount	10286	9456	7432	7374	7175	5481	4468	3135	3075	2852	2594	2481	2193	1737	1410	1020	843	767	766	604
	Mean FTE	0.87	0.84	0.87	0.86	0.86	0.85	0.83	0.82	0.82	0.79	0.87	0.77	0.85	0.83	0.84	0.84	0.83	0.77	0.82	0.74

## MEAN AGES AND MEAN LENGTH OF SERVICE BY DHB AND GENDER

This chart shows the mean age of employees in each DHB by gender (left hand axis) and has been ordered by descending average age. The triangles represent the average length of service (right hand axis) by gender and DHB.

Figure 8: Mean ages and mean length of service by DHB and gender

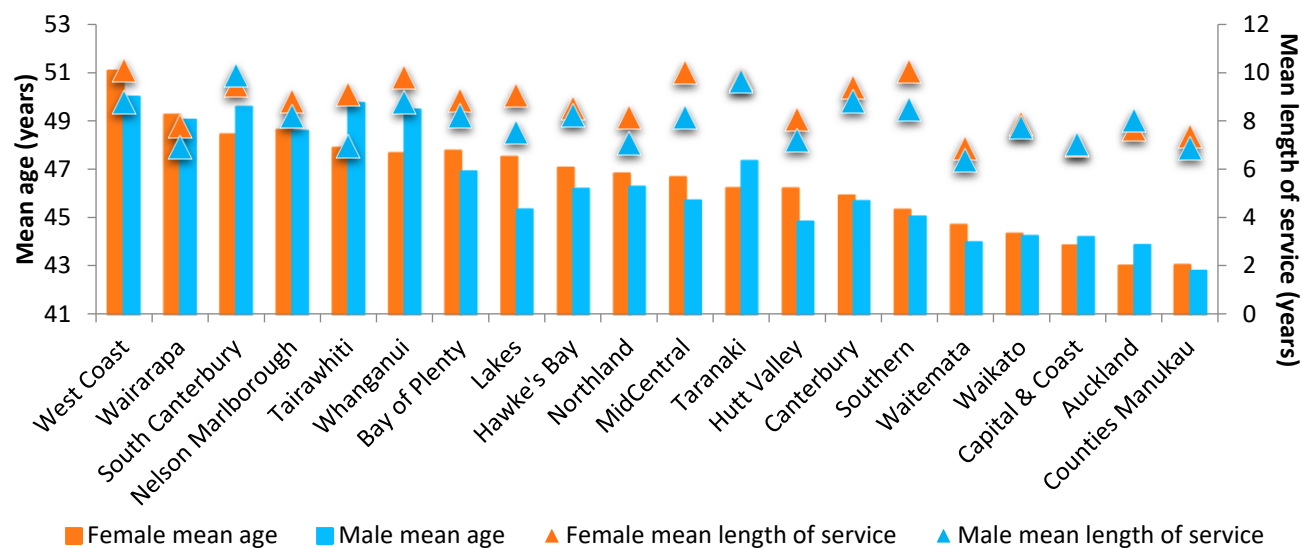


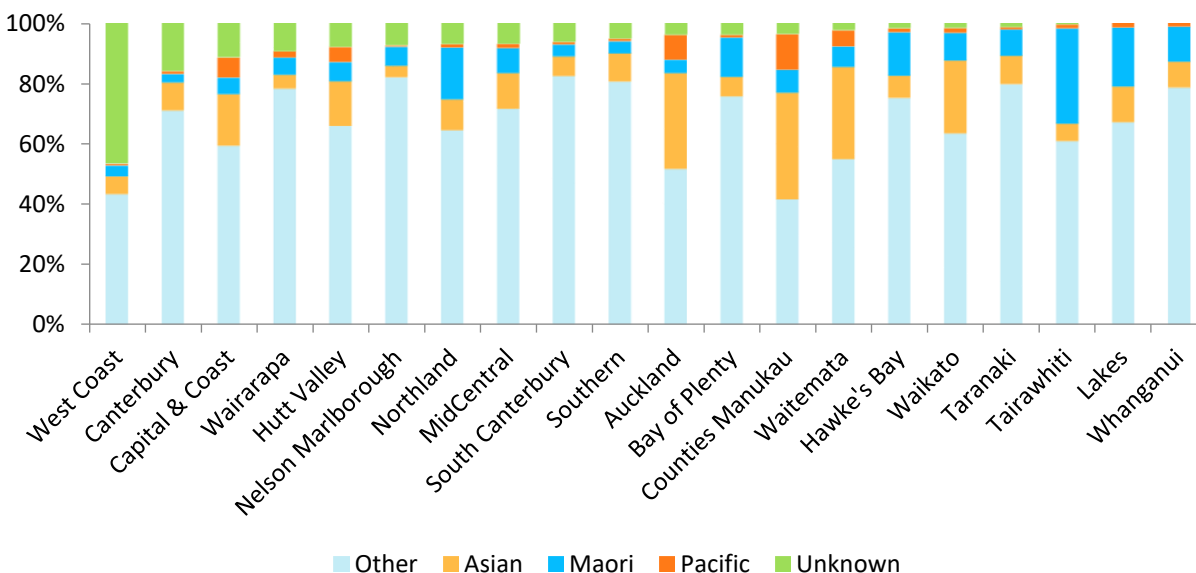
Table 7: Mean ages and mean length of service by DHB and gender

DHB	Female mean length of service	Female mean age	Male mean length of service	Male mean age	All staff mean length of service	All staff mean age
West Coast	10.1	51.1	8.8	50.0	9.9	50.9
Wairarapa	7.8	49.2	6.9	49.0	7.6	49.2
South Canterbury	9.5	48.4	9.9	49.6	9.5	48.6
Nelson Marlborough	8.8	48.6	8.2	48.6	8.7	48.6
Tairāwhiti	9.1	47.9	6.9	49.7	8.7	48.2
Whanganui	9.8	47.7	8.8	49.5	9.6	48.0
Bay of Plenty	8.9	47.8	8.2	46.9	8.7	47.6
Lakes	9.1	47.5	7.5	45.3	8.8	47.1
Hawke's Bay	8.5	47.1	8.2	46.2	8.5	46.9
Northland	8.1	46.8	7.1	46.3	7.9	46.7
MidCentral	10.0	46.7	8.1	45.7	9.6	46.5
Taranaki	9.7	46.2	9.7	47.4	9.7	46.4
Hutt Valley	8.1	46.2	7.2	44.8	7.9	45.9
Canterbury	9.4	45.9	8.8	45.7	9.3	45.9
Southern	10.1	45.3	8.5	45.0	9.7	45.3
Waitemata	6.9	44.7	6.4	44.0	6.8	44.5
Waikato	7.9	44.3	7.7	44.2	7.9	44.3
Capital & Coast	7.0	43.9	7.0	44.2	7.0	43.9
Auckland	7.7	43.0	8.0	43.9	7.7	43.2
Counties Manukau	7.4	43.0	6.9	42.8	7.3	43.0
<b>Grand Total</b>	<b>8.3</b>	<b>45.3</b>	<b>7.7</b>	<b>45.0</b>	<b>8.2</b>	<b>45.2</b>

## ETHNICITIES BY DHB

The following chart shows the proportion of ethnicities within each DHB employee population (ordered by descending proportion of 'unknown' ethnicities). It does not represent the actual number of people by each ethnicity; this is detailed in the table further below.

**Figure 9: Proportion of reported ethnicities by DHB**



**Table 8: Distribution of reported ethnicities by DHB**

DHB	Other*	Asian	Māori	Pacific	Unknown	Total
West Coast	332	46	>24**	**	356	766
Canterbury	6,707	898	265	86	1,500	9,456
Capital & Coast	3,248	949	301	364	619	5,481
Wairarapa	472	29	35	12	56	604
Hutt Valley	1,443	329	141	108	172	2,193
Nelson Marlborough	2,032	101	156	11	181	2,481
Northland	1,980	323	526	32	214	3,075
MidCentral	1,856	311	215	34	178	2,594
South Canterbury	631	52	>26**	>5**	47	767
Southern	3,599	424	178	37	230	4,468
Auckland	5,308	3,274	462	844	398	10,286
Bay of Plenty	2,370	209	409	27	120	3,135
Counties Manukau	2,989	2,546	541	837	262	7,175
Waitemata	4,048	2,258	506	393	169	7,374
Hawke's Bay	2,140	216	412	37	47	2,852
Waikato	4,708	1,808	678	117	121	7,432
Taranaki	1,383	167	151	>10**	>20**	1,737
Tairāwhiti	512	52	265	>8**	**	843
Lakes	946	170	275	19	0	1,410
Whanganui	801	90	117	12	0	1,020
<b>Grand Total</b>	<b>47,505</b>	<b>14,252</b>	<b>5,691</b>	<b>3,005</b>	<b>4,696</b>	<b>75,149</b>

\* 'Other' is a group amalgamation of all ethnicities that do not fall into the groups Asian, Māori or Pacific.

\*\* Data suppressed (headcounts less than 5)

## ANALYSIS BY DHB AND OCCUPATION GROUP

### LENGTH OF SERVICE BY OCCUPATION GROUP AND DHB

The following table shows the mean length of service for each occupation group by DHB. To read this table, look at the occupation column. The green colours represent a longer than national average length of service, the yellow colours are similar to the national average while red colours are lower than the national average. The final column (all staff) has ordered the DHBs by longer to shorter lengths of service.

**Table 9: Mean length of service by occupation group and DHB**

DHB	Nursing	Corporate and other	Allied and scientific	Care and support	SMO	RMO	Midwifery	All staff
West Coast	10.4	9.1	9.6	10.9	7.5	1.0	11.2	9.9
Southern	11.1	10.1	9.3	8.6	10.2	2.0	9.0	9.7
Taranaki	10.5	10.7	10.1	9.8	7.7	1.5	9.2	9.7
MidCentral	11.1	9.4	9.2	9.0	10.5	1.6	9.7	9.6
Whanganui	10.0	9.6	10.2	10.0	10.4	1.0	10.1	9.6
South Canterbury	10.4	8.9	9.7	11.3	8.9	1.0	7.1	9.5
Canterbury	10.3	8.4	9.6	9.1	11.2	2.3	9.4	9.3
Lakes	9.8	9.3	9.3	8.8	7.5	1.3	5.8	8.8
Bay of Plenty	9.9	9.4	8.0	7.5	9.9	1.4	7.6	8.7
Nelson Marlborough	10.1	7.2	8.2	9.5	10.3	1.2	6.9	8.7
Tairāwhiti	11.1	7.4	7.7	7.7	8.1	1.0	5.5	8.7
Hawke's Bay	8.9	8.7	8.9	8.4	10.5	1.7	7.2	8.5
Northland	8.6	9.2	8.5	5.5	8.5	1.2	7.1	7.9
Hutt Valley	9.2	8.0	7.5	8.6	9.2	0.5	7.7	7.9
Waikato	8.4	8.3	8.1	6.9	10.3	2.0	5.8	7.9
Auckland	7.6	8.0	8.1	8.7	10.6	0.6	6.9	7.7
Wairarapa	8.5	6.4	8.5	7.3	9.3	0.4	5.1	7.6
Counties Manukau	7.3	8.2	6.8	7.6	10.3	0.6	7.1	7.3
Capital & Coast	7.1	7.1	6.9	8.6	10.2	1.1	7.0	7.0
Waitemata	6.7	7.1	7.5	6.2	9.8	0.6	6.8	6.8
<b>Grand Total</b>	<b>8.8</b>	<b>8.4</b>	<b>8.3</b>	<b>8.0</b>	<b>10.1</b>	<b>1.3</b>	<b>7.4</b>	<b>8.2</b>

# ANALYSIS BY SICK LEAVE & ANNUAL LEAVE

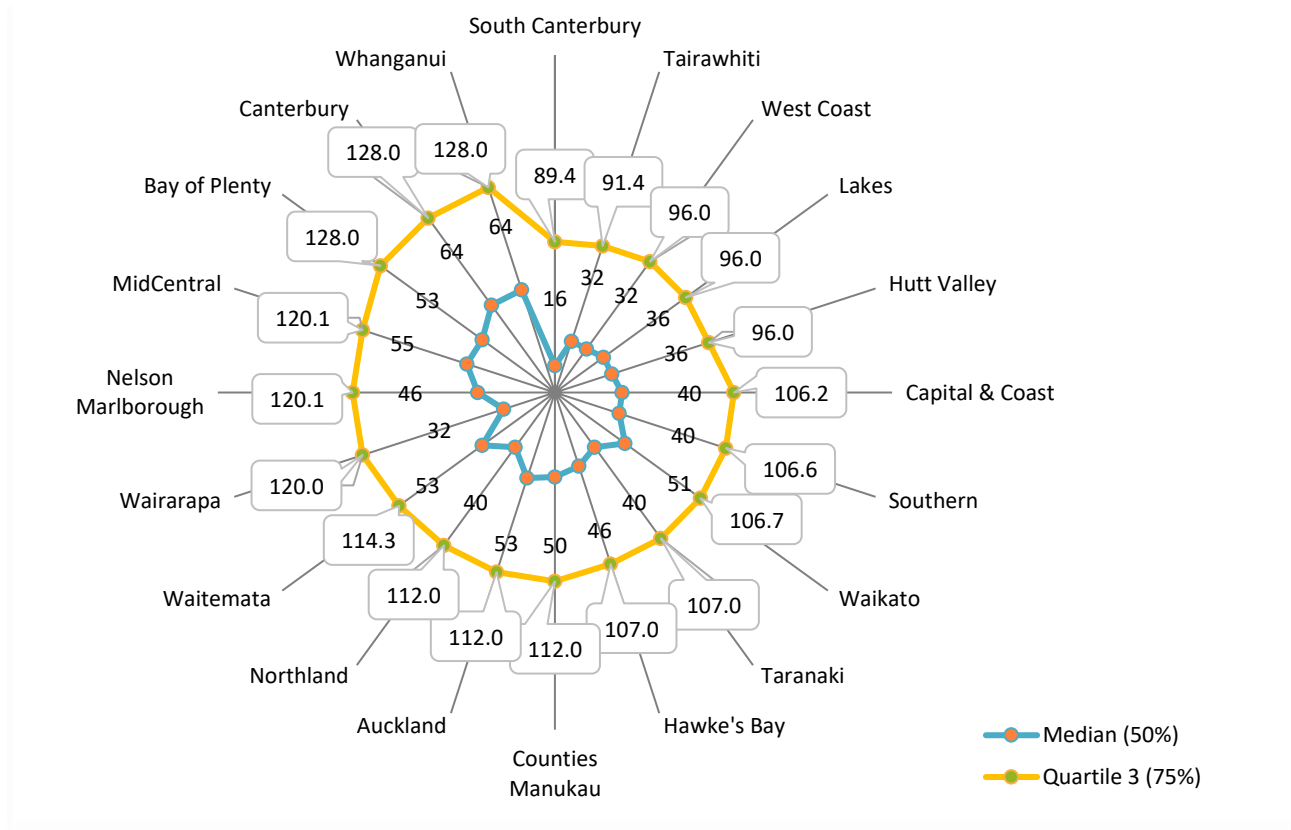
## SICK LEAVE BY DHB, OCCUPATION GROUP, AGE GROUP AND ETHNICITY BY GENDER

The following radar chart shows the dispersion of sick leave by DHB by looking at the average annualised sick leave hours per contracted FTE. It is based on all contracted employees not on long term leave and excluding those who commenced employment during the reporting quarter, regardless of the amount of sick leave taken during this reporting quarter. The process of annualising the quarter's reported sick leave hours may amplify the impact of outlier events, whether these are negative values (reported to correct an over-statement in a previous quarter) or a potential over-reporting, where a person reportedly took more sick leave than we would expect them to have worked based on their contracted FTE.

To read this graph, the blue line indicates the median (50%) sick leave hours per FTE; i.e. 50% of staff took sick leave hours (per FTE) at or below this value. The yellow line indicates the 3rd quartile (75%) sick leave hours per FTE; i.e. 75% of staff took sick leave hours (per FTE) at or below this value. The order of least sick leave hours per FTE to the most sick leave hours per FTE taken runs clockwise from 12 o'clock.

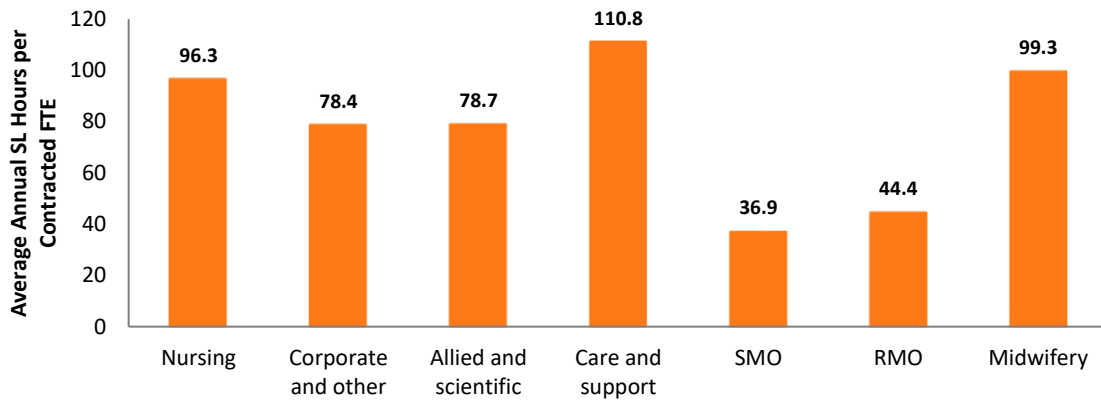
For example, the data for South Canterbury shows that 50% of staff took 16.0 hours sick leave or less (note comments on negative sick leave values above) per FTE in the June quarter, and 75% of staff took 89.4 hours or less of sick leave per FTE. The data for Southern shows that 50% of staff took 40 hours or less sick leave per FTE, and that 75% of staff took 106.6 hours or less of sick leave per FTE.

**Figure 10: Average annualized sick leave hours per FTE by DHB**

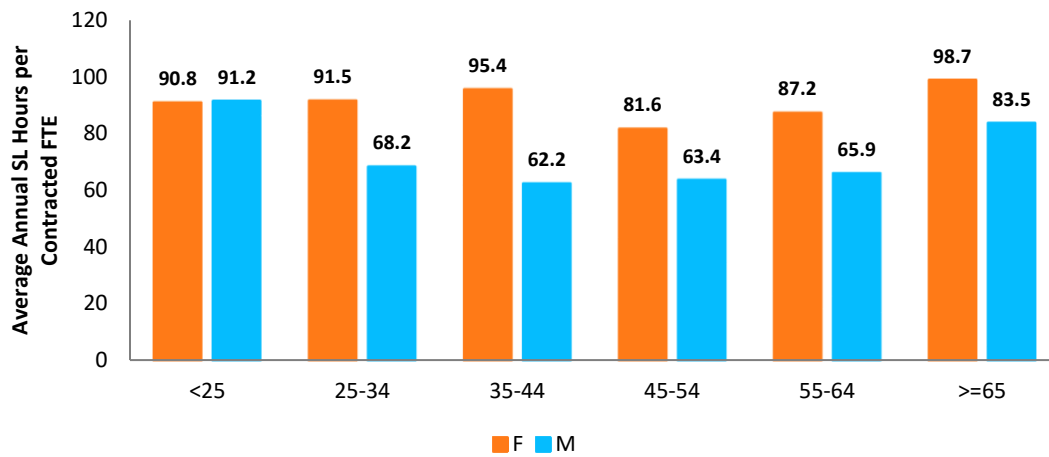




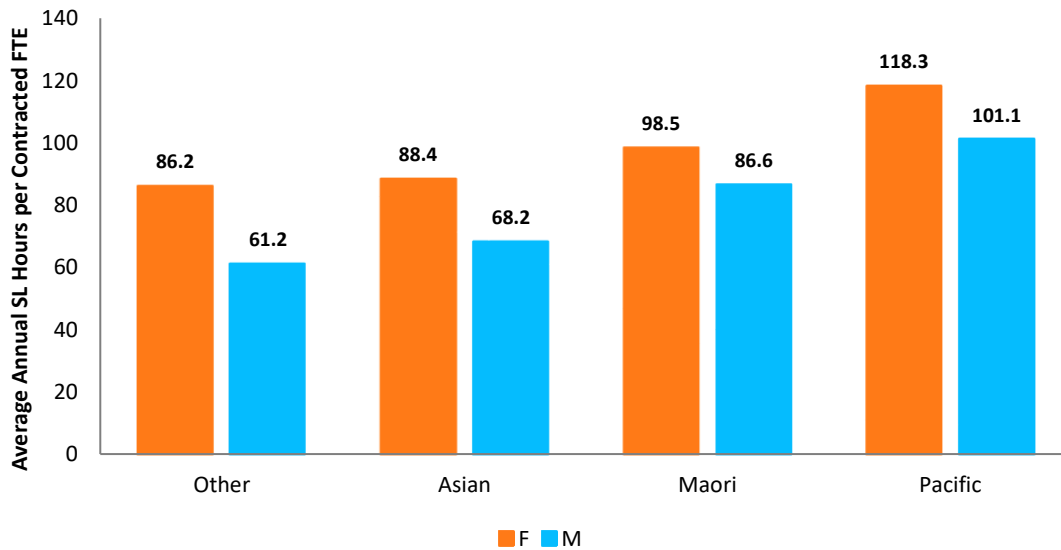
**Figure 11: Average annual sick leave hours per FTE by occupational group**



**Figure 12: Average annual sick leave hours per FTE by age group by gender**



**Figure 13: Average annual sick leave hours per FTE by ethnicity by gender**

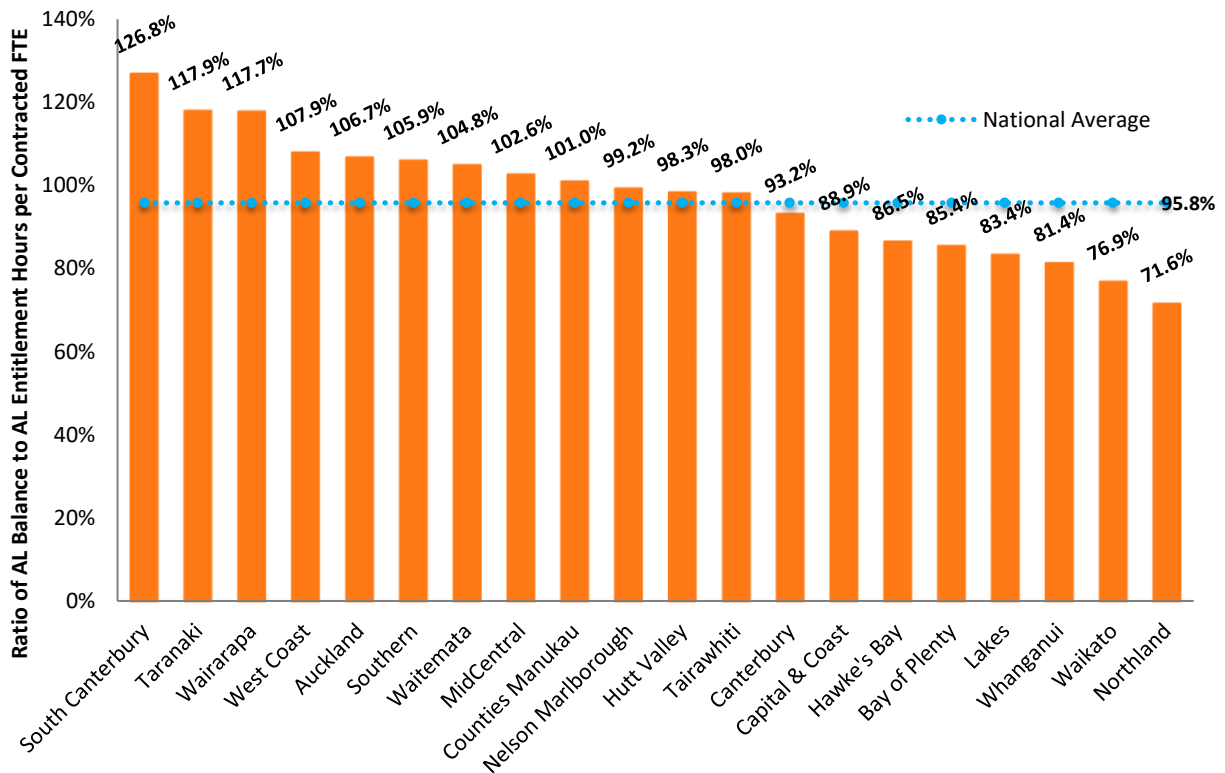


## RATIO OF ANNUAL LEAVE BALANCE AND ANNUAL LEAVE ENTITLEMENT BY DHB, OCCUPATION GROUP AND ETHNICITY BY GENDER

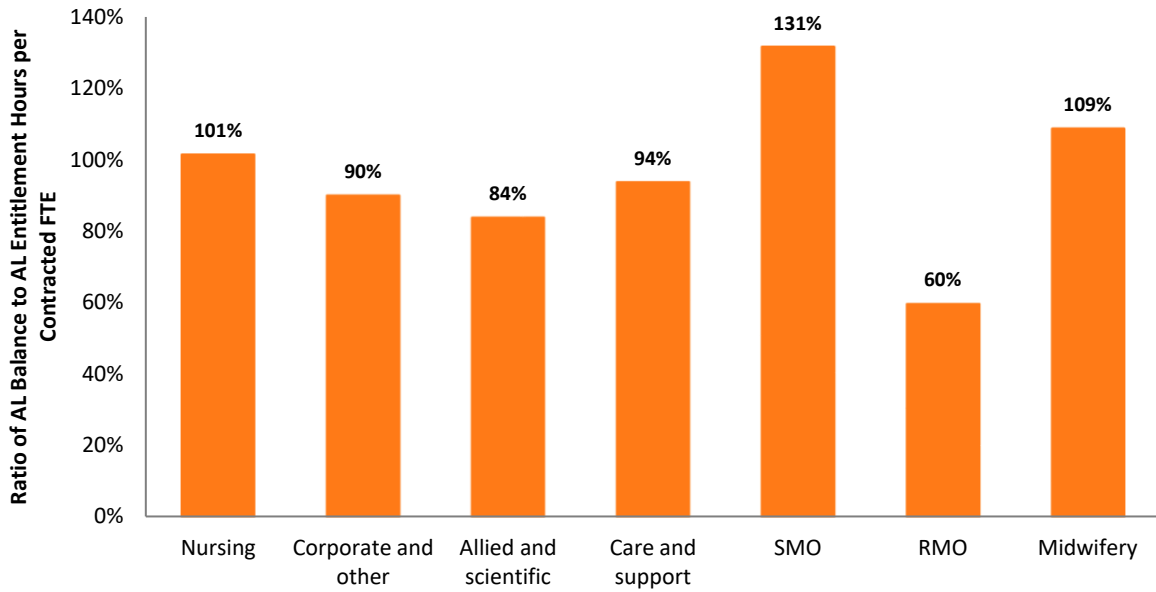
In the first chart, the bars represent the ratios of annual leave balance to annual leave entitlement and the blue dotted line represents the national average. For example, a value of 100% means that on average the DHB employees have an annual leave balance equal to their annual leave entitlement. The chart shows that for the first nine DHBs, on average their employees have more annual leave balance than annual leave entitlement.

The other two charts on page 19 display the ratio of annual leave balance to entitlement per FTE at the national level, grouped by both Occupation Group and Ethnicity (with gender split).

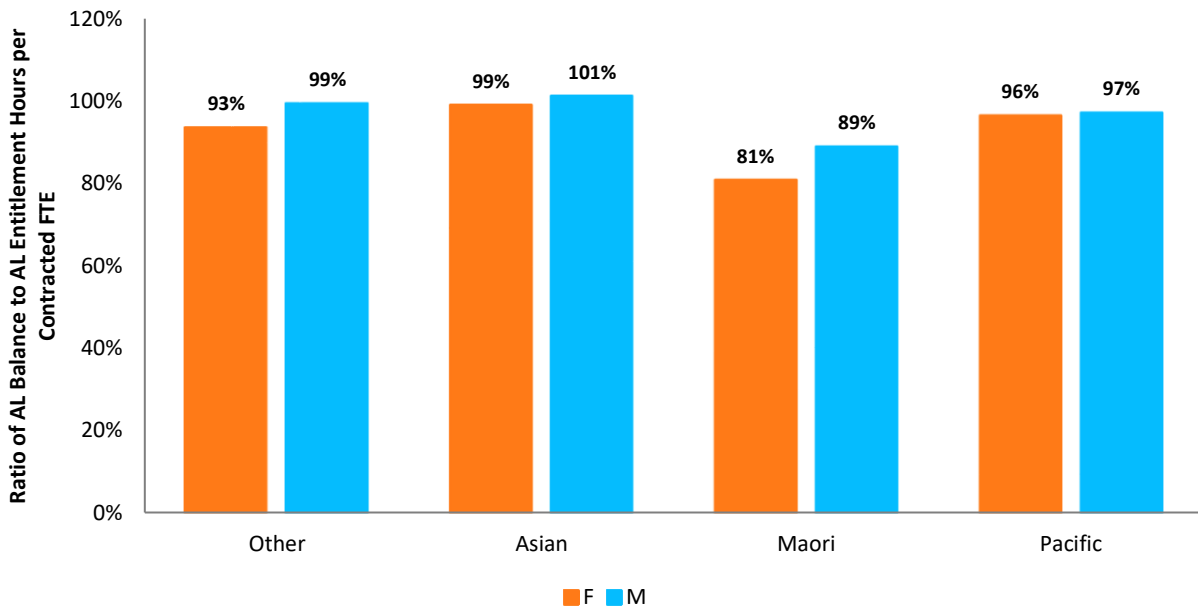
**Figure 14: Ratio of annual leave balance to annual leave entitlement hours per FTE by DHB**



**Figure 15: Ratio of annual leave balance to annual leave entitlement hours per FTE by occupational group**



**Figure 16: Ratio of annual leave balance to annual leave entitlement hours per FTE by ethnicity by gender**

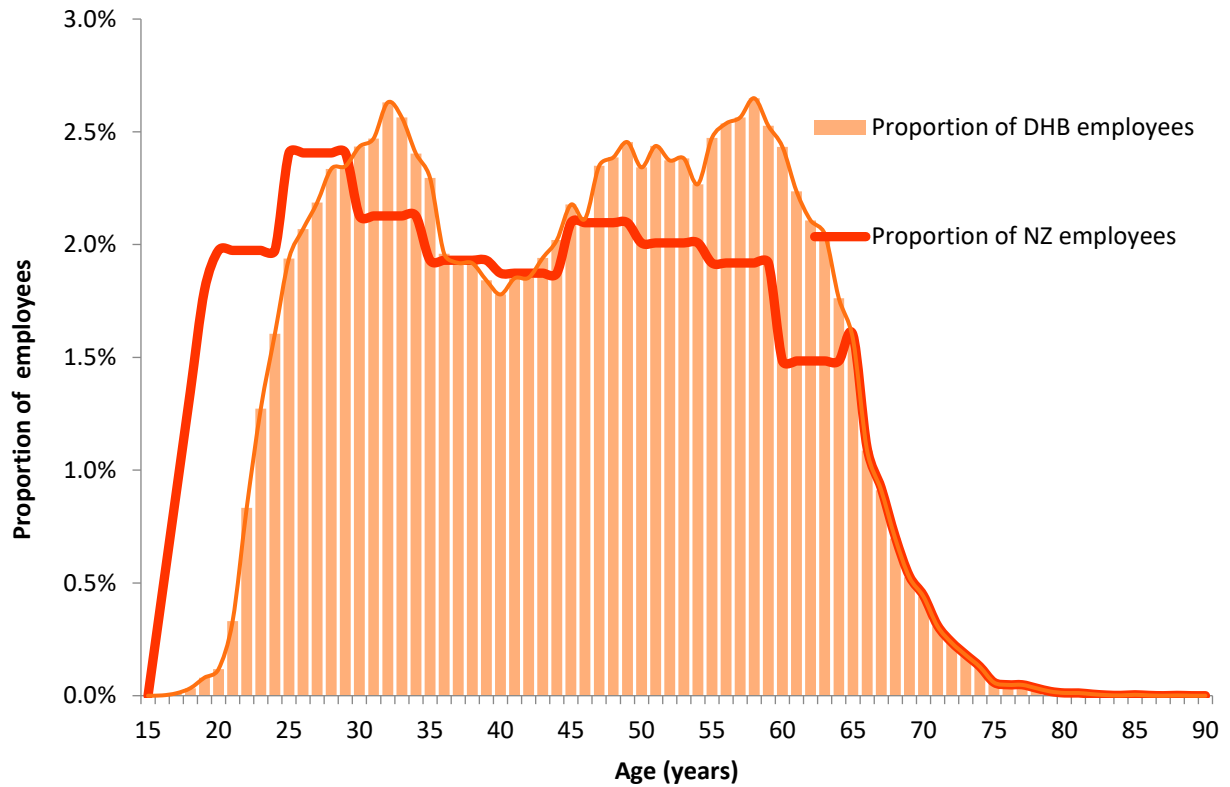


# ANALYSIS BY POPULATION

## DISTRIBUTION OF OVERALL DHB EMPLOYEES BY AGE, WITH NATIONAL EMPLOYEE DATA

The following chart shows the distribution of ages of DHB employees (histogram with light orange outline). The staggered dark orange line is the distribution of all New Zealand employees for the June 2019 quarter as reported in the Household Labour Force Survey (HLFS) by Statistics New Zealand.

Figure 17: Distribution of overall DHB employees by age, with national employee data



## ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION

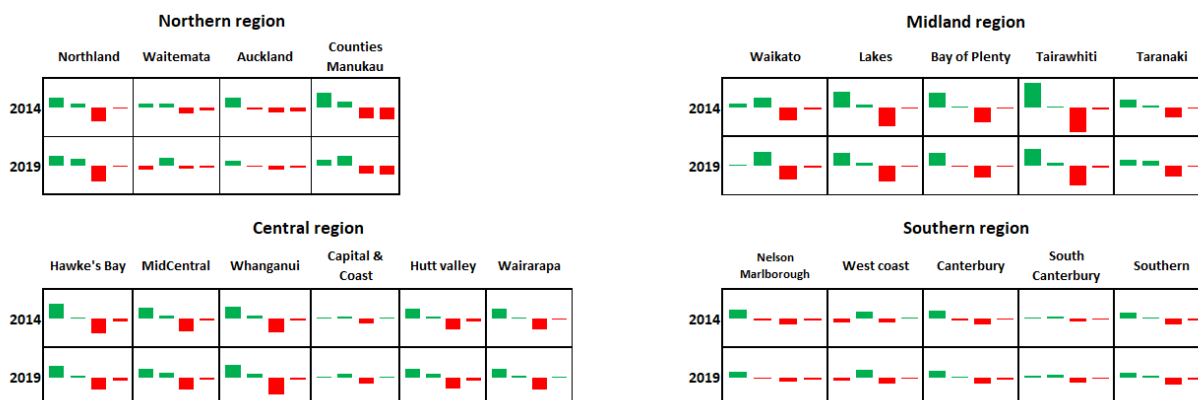
The following charts look at the ethnic representation of DHB staff to the resident population.

The calculations look at the percentage of staff with a known ethnicity and compare it to the percentage of DHB residents with a known ethnicity. This latter data has been interpolated from data produced by Statistics New Zealand and is representative for the quarter being reported on. The proportion of staff with a known ethnicity this quarter was 93.8 percent, compared to 86.3 percent in June 2014.

The four ethnicity groups used are: Other, Asian, Māori and Pacific – ‘Other’ is an amalgamation of all other ethnicities but is primarily European including the ‘New Zealander’ ethnicity. Throughout these charts this is the order of presentation.

When a bar on a chart is green it means the proportion of that ethnicity in the DHB workforce is greater than the population. If a bar is red then the proportion of the DHB workforce is less than that of the resident population. All charts use the same axis scale (as these are spark lines the numbers are not written against the axes), which range from -24% to +25% - so comparisons between DHBs are possible. The data for 2014 has also been added to show any changes over the last five years.

It is important to note that some DHBs have very small counts by ethnicity; for example West Coast has less than five Pacific employees. This means the data can be quite volatile. Also, those DHBs that are heavily weighted towards a particular ethnicity in their population such as Pacific people in Counties Manukau or Māori in Waikato, will tend to show greater deviations between the DHB workforce ethnicities and the resident population.



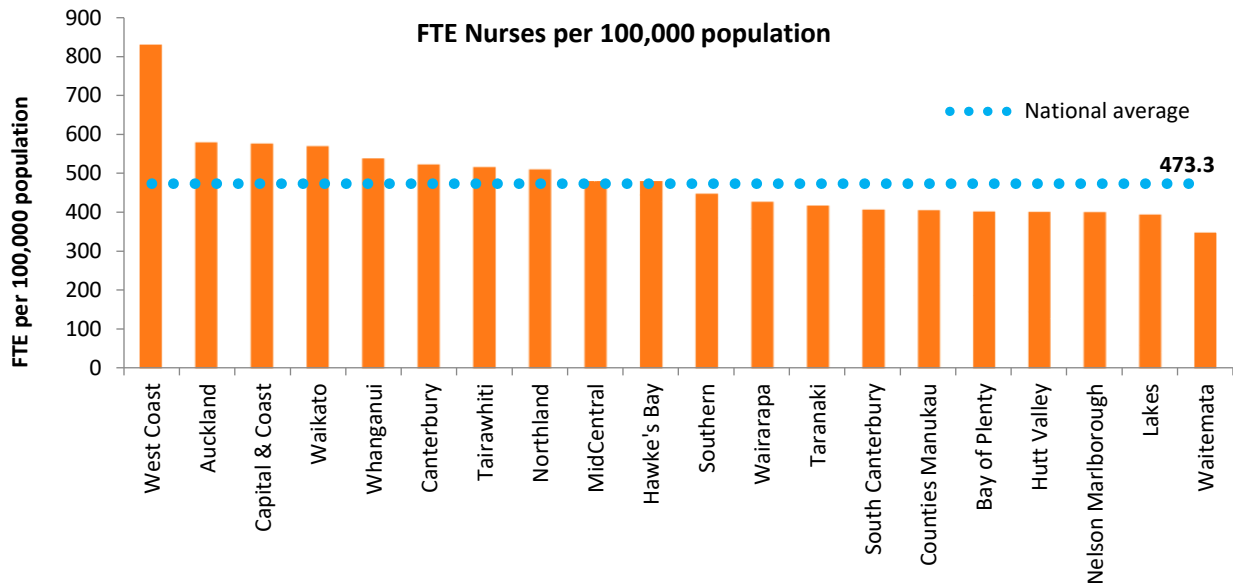
Note: The four bars are ordered as: Other, Asian, Māori and Pacific

For some DHBs the ethnic distribution of their staff closely mirrors that of the resident population, such as Capital & Coast and Taranaki. Overall, the distributions have changed only slightly between 2014 and 2019; the ‘Other’ ethnicities have reduced closer to zero (from nine down to five percentage points difference), whereas Māori have marginally less under-representation (from negative nine to negative eight percentage points difference).

## POPULATION DENSITY BY OCCUPATIONAL GROUP AND DHB

This section looks at the number of staff per resident population. Staff numbers are contracted FTE figures and they are compared to every 100,000 resident population. Midwives has been compared to the fertile female population (aged 15-49). The important factor to consider in this section is that each DHB may have different models of care (the way services are delivered to the population). For example, only six DHBs provide radiation therapy services, so they may appear to have more staff per head of population but they are actually serving the population from many other DHBs.

**Figure 18: Population density of Nurses by DHB**



**Figure 19: Population density of Corporate & Other by DHB**

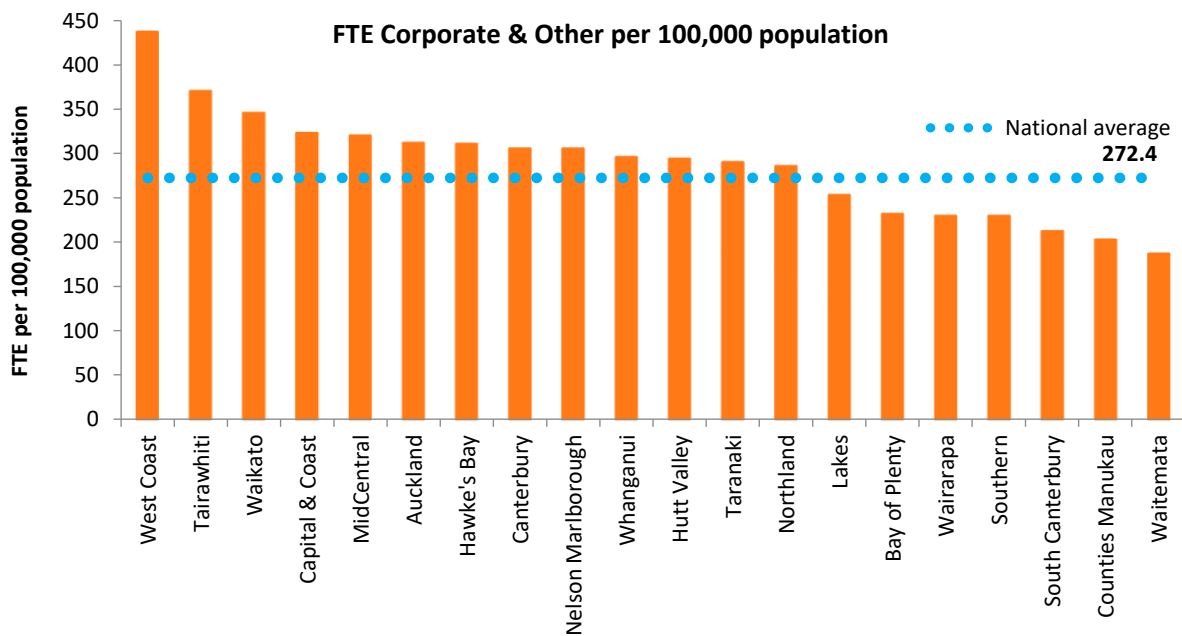


Figure 20: Population density of Allied & Scientific by DHB

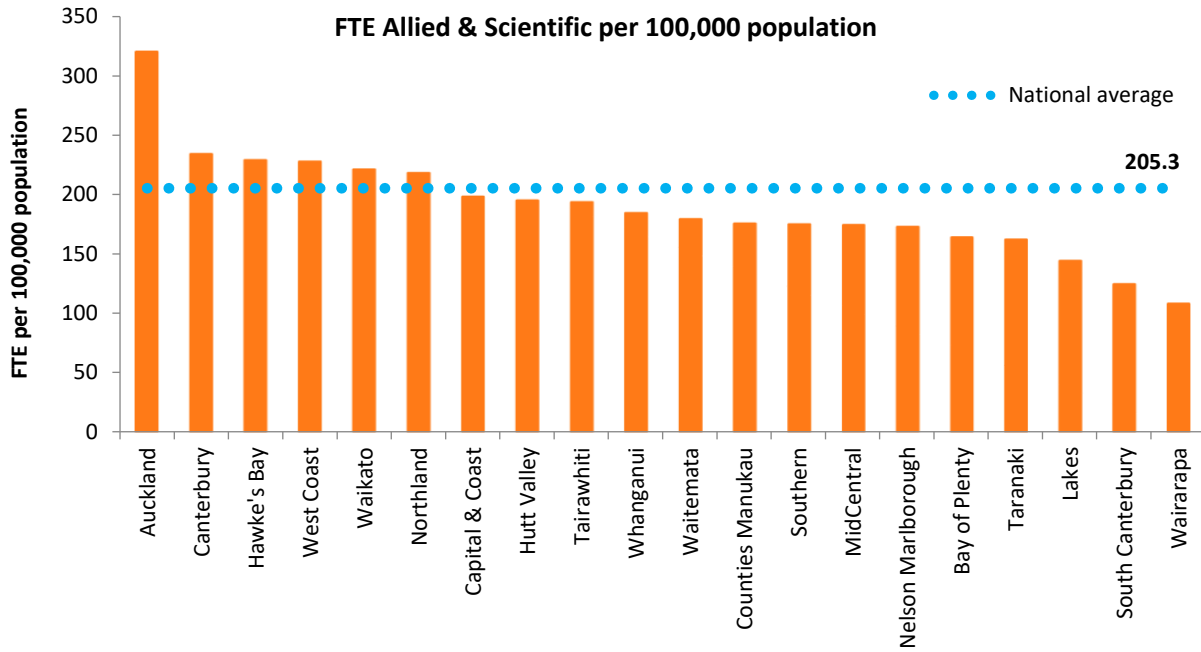


Figure 21: Population density of Care & Support by DHB

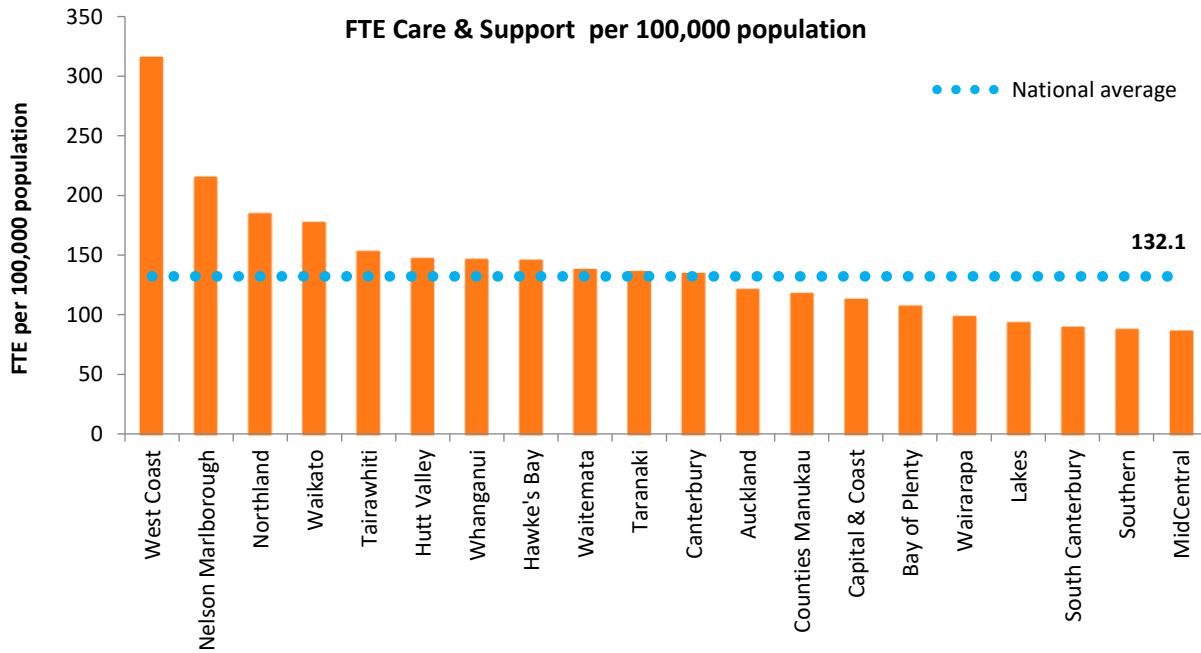


Figure 22: Population density of Senior Medical Officer (SMO) by DHB

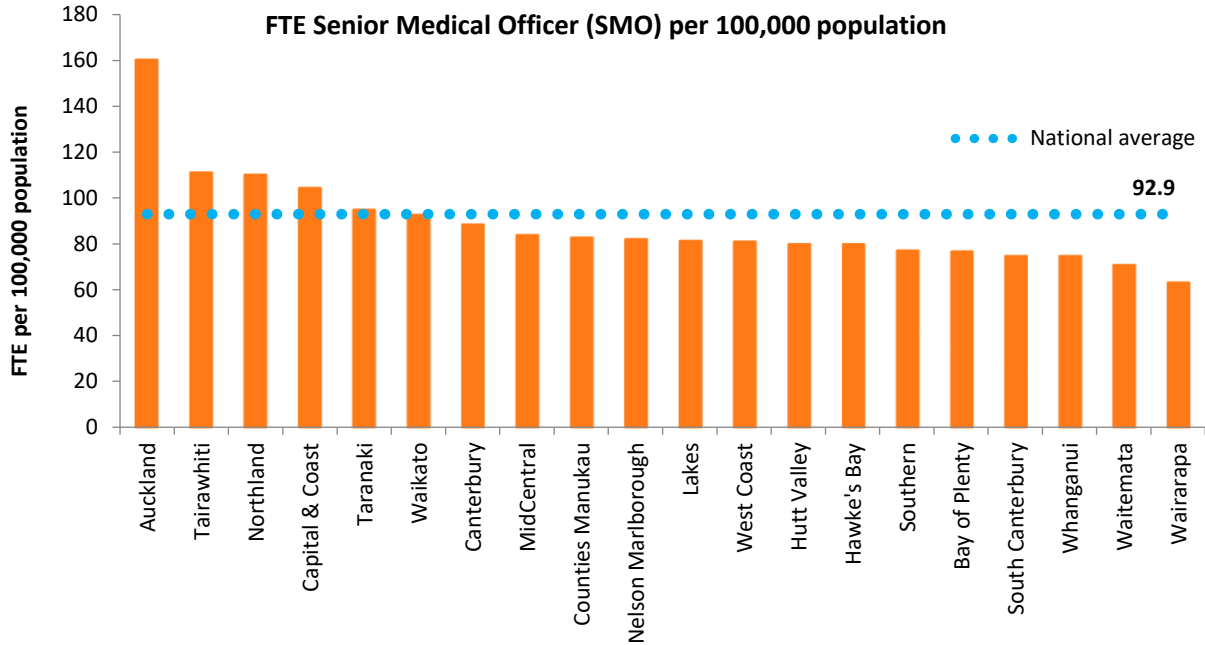


Figure 23: Population density of Resident Medical Officer (RMO) by DHB

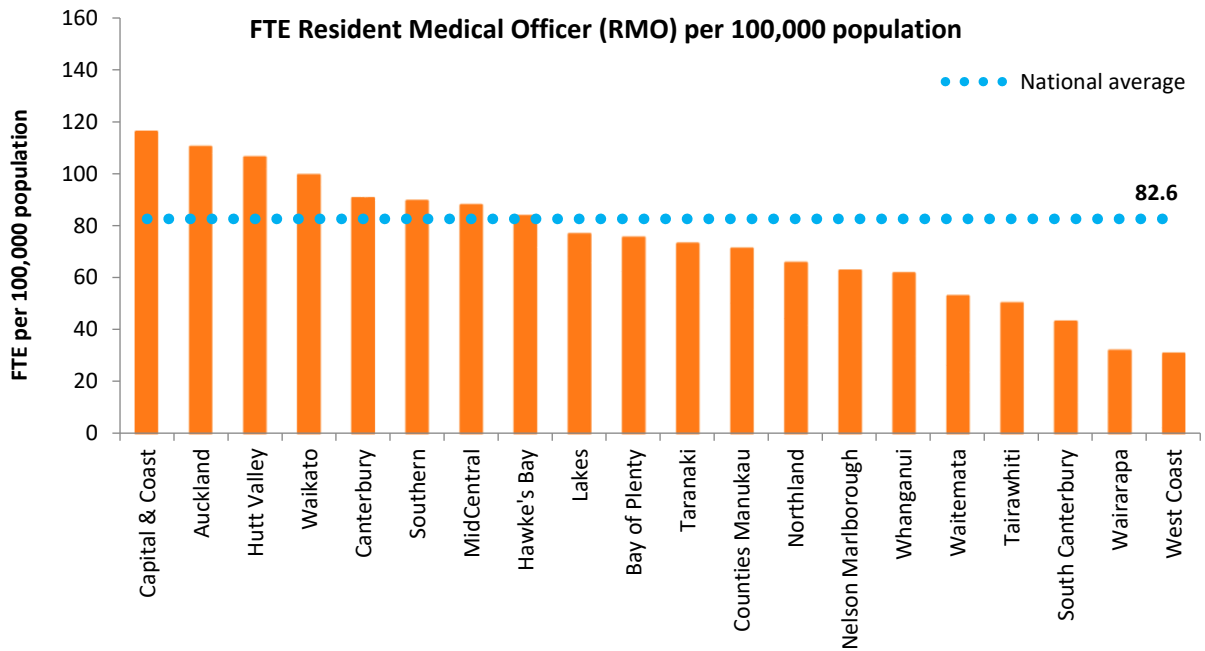




Figure 24: Population density of Midwives by DHB

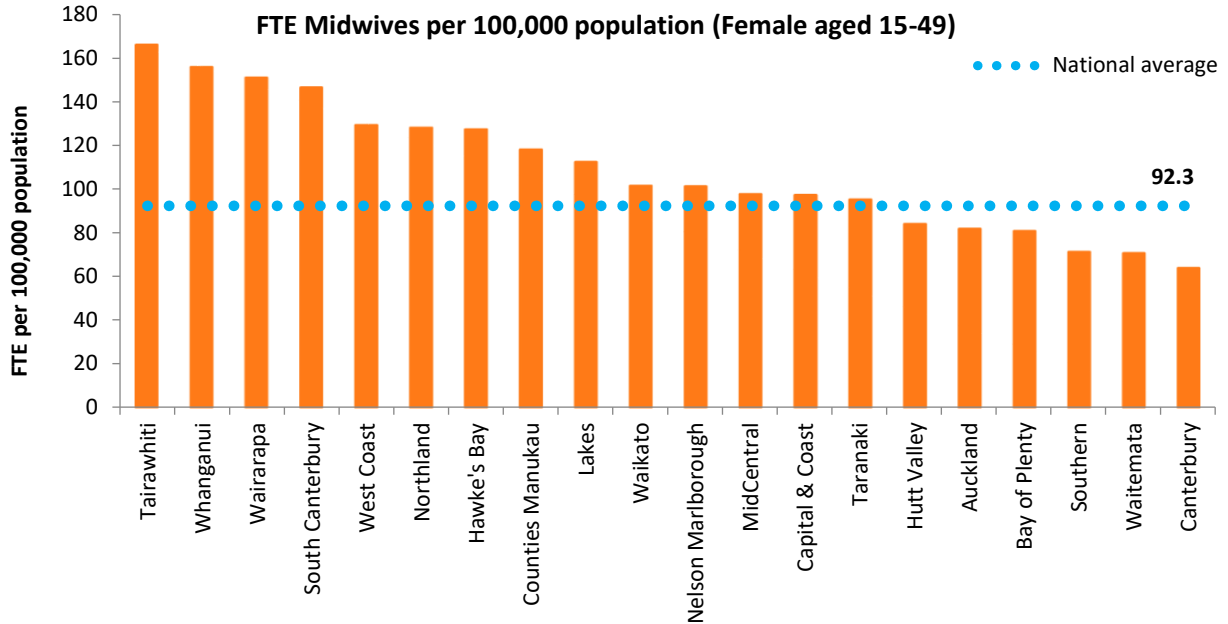


Figure 25: Population density of all DHB staff by DHB

