DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT

1 JANUARY TO 31 MARCH 2019

Health Workforce Information

The Workforce Information team, in Strategic Workforce Services at TAS (Technical Advisory Services), 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 January 2019 to 31 March 2019 and is a snapshot in time at 31 March 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 January 2019 to March 2019 inclusive and is a snapshot taken by the DHBs on 31 March 2019.

- The data quality continues to improve as the Workforce Information team works 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.

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Data source: DHB Workforce Information, held by Strategic Workforce Services at TAS.

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OVERVIEW

DHB WORKFORCE AT A GLANCE

For data to 31 March 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.

Total employees 74,678 **58,678 female** **16,000 male**	**63,047 FTE** **48,360 FTE* females** **14,686 FTE* males**	**Largest occupation group:** **Nurses – 28,712** **Smallest occupation group:** **Midwives – 1,490**
DHB employee average age 45.2 years **45.3 years for females** **45.0 years for males**	**Oldest male occupation group:** **SMO (mean age 51.3 years)** **Youngest male occupation group:** **RMO (mean age 30.8 years)**	**Oldest female occupation groups:** **Corporate and other (mean age 50.1 years)** **Youngest female occupation group:** **RMO (mean age 30.5 years)**
Mean FTE rate 0.84 **Mean FTE rate for females 0.82** **Mean FTE rate for males 0.92**	**Longest Length of Service occupation group** **SMO (mean 10.0 years)** **Shortest Length of Service occupation group** **RMO (mean 1.2 years)**	**Employee reported ethnicities:** **Other** – 68.2%** **Asian – 19.6%** **Māori – 8.0%** **Pacific – 4.2%**

*   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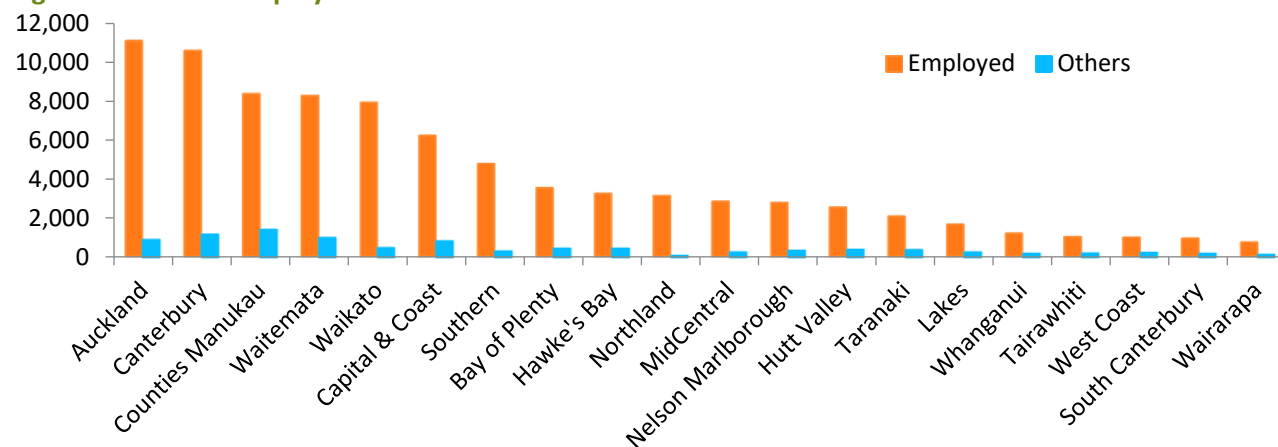 who have not been reported with an employment status code). The chart has been ordered in descending order of DHB workforce size. The table below the chart gives the actual count of employees.

Figure 1: Count of employees

Table 1: Distribution of employment types

DHB	Employed	Others	Total	Proportion of DHB workforce
Auckland	10,226	851	11,077	13.2%
Canterbury	9,469	1,116	10,585	12.6%
Counties Manukau	7,011	1,341	8,352	10.0%
Waitemata	7,307	954	8,261	9.9%
Waikato	7,464	452	7,916	9.4%
Capital & Coast	5,430	789	6,219	7.4%
Southern	4,473	297	4,770	5.7%
Bay of Plenty	3,114	427	3,541	4.2%
Hawke's Bay	2,822	420	3,242	3.9%
Northland	3,052	78	3,130	3.7%
MidCentral	2,447	242	2,822	3.4%
Nelson Marlborough	2,580	334	2,781	3.3%
Hutt Valley	2,168	371	2,539	3.0%
Taranaki	1,708	358	2,066	2.5%
Lakes	1,416	243	1,659	2.0%
Whanganui	1,025	175	1,200	1.4%
Tairawhiti	833	190	1,023	1.2%
West Coast	759	228	987	1.2%
South Canterbury	765	174	939	1.1%
Wairarapa	609	127	736	0.9%
Grand Total	**74,678**	**9,167**	**83,845**	**100.0%**

INCLUSIONS AND EXCLUSIONS

Specific caveats and definitions relevant to particular 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 maternity / parental leave 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, and where an incorrect ANZSCO code has been assigned, then they will also be excluded).
- 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.
- 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	3762	3212.3	0.85	1873	1664.1	0.89	2034	1784.8	0.88	704	656.0	0.93	1089	888.7	0.82	604	598.1	0.99	160	122.5	0.77
Bay of Plenty	1267	964.7	0.76	615	545.4	0.89	454	384.2	0.85	308	254.1	0.83	220	182.8	0.83	186	184.2	0.99	64	42.9	0.67
Canterbury	3626	2988.5	0.82	1948	1709.5	0.88	1620	1335.4	0.82	990	776.7	0.78	604	511.9	0.85	544	534.3	0.98	137	89.8	0.66
Capital & Coast	2288	1836.4	0.80	1085	992.7	0.91	733	634.4	0.87	394	345.6	0.88	425	337.4	0.79	396	380.8	0.96	109	75.4	0.69
Counties Manukau	2647	2254.8	0.85	1377	1180.2	0.86	1084	941.3	0.87	739	648.4	0.88	563	474.1	0.84	414	406.6	0.98	187	141.7	0.76
Hawke's Bay	1112	791.4	0.71	585	505.7	0.86	452	367.4	0.81	303	240.4	0.79	150	130.0	0.87	152	151.6	1.00	68	39.7	0.58
Hutt Valley	743	606.2	0.82	476	434.0	0.91	353	292.1	0.83	246	216.1	0.88	156	121.4	0.78	148	146.3	0.99	46	31.6	0.69
Lakes	571	448.5	0.79	309	277.6	0.90	193	162.7	0.84	117	96.2	0.82	101	90.3	0.89	90	90.0	1.00	35	25.3	0.72
MidCentral	1036	852.3	0.82	625	574.6	0.92	350	312.4	0.89	184	151.0	0.82	158	140.9	0.89	170	169.4	1.00	57	39.3	0.69
Nelson Marlborough	817	601.2	0.74	550	452.7	0.82	336	253.0	0.75	445	322.9	0.73	155	124.3	0.80	96	95.4	0.99	48	32.2	0.67
Northland	1183	905.7	0.77	579	504.1	0.87	473	401.4	0.85	417	319.8	0.77	203	194.8	0.96	128	127.1	0.99	69	41.1	0.60
South Canterbury	323	247.6	0.77	165	129.5	0.78	94	73.3	0.78	73	52.1	0.71	65	47.3	0.73	25	24.9	1.00	20	14.9	0.74
Southern	1879	1491.0	0.79	853	756.0	0.89	675	575.3	0.85	351	279.9	0.80	322	253.2	0.79	313	304.1	0.97	80	55.0	0.69
Tairawhiti	324	255.0	0.79	198	177.5	0.90	119	96.4	0.81	84	68.5	0.82	60	51.8	0.86	25	24.7	0.99	23	17.5	0.76
Taranaki	635	484.9	0.76	395	351.7	0.89	239	194.8	0.81	183	151.9	0.83	135	114.1	0.85	90	88.7	0.99	31	23.4	0.76
Waikato	2879	2421.6	0.84	1595	1425.0	0.89	1099	963.4	0.88	864	740.7	0.86	443	393.0	0.89	453	444.3	0.98	131	96.1	0.73
Wairarapa	278	192.3	0.69	130	104.1	0.80	70	51.0	0.73	63	41.9	0.66	34	30.1	0.88	15	14.4	0.96	19	13.0	0.68
Waitemata	2600	2206.8	0.85	1303	1134.6	0.87	1355	1124.3	0.83	994	890.3	0.90	524	446.0	0.85	361	352.2	0.98	170	111.7	0.66
West Coast	313	263.3	0.84	163	138.7	0.85	83	74.9	0.90	142	97.5	0.69	32	27.2	0.85	14	13.5	0.96	12	8.6	0.72
Whanganui	429	346.4	0.81	217	190.7	0.88	141	117.6	0.83	115	93.1	0.81	54	49.2	0.91	45	44.8	1.00	24	18.5	0.77
Grand Total	28712	23371.0	0.81	15041	13248.4	0.88	11957	10140.0	0.85	7716	6443.1	0.84	5493	4608.5	0.84	4269	4195.4	0.98	1490	1040.4	0.70

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

ordered by headcount

Legend: Female headcount, Male headcount, Female mean FTE, Male mean FTE
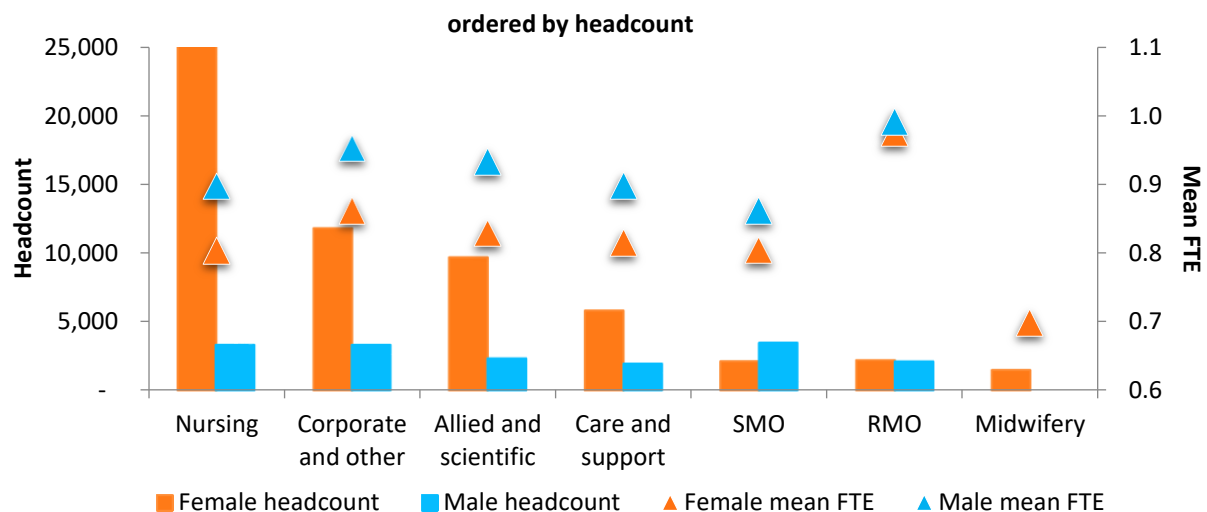
Table 3: Occupation group headcount and mean FTE by gender

Occupation group	Female		Male		Total	
	Headcount	Mean FTE	Headcount	Mean FTE	Headcount	Mean FTE
Nursing	25,495	0.80	3,217	0.90	28,712	0.81
Corporate and other	11,827	0.86	3,214	0.95	15,041	0.88
Allied and scientific	9,690	0.83	2,267	0.93	11,957	0.85
Care and support	5,826	0.81	1,890	0.90	7,716	0.84
SMO	2,131	0.80	3,362	0.86	5,493	0.84
RMO	>2,218	0.98	>2,043	0.99	4,269	0.98
Midwifery	>1,483	0.70	**	**	1,490	0.70
Grand Total	**58,678**	**0.82**	**16,000**	**0.92**	**74,678**	**0.84**

** 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

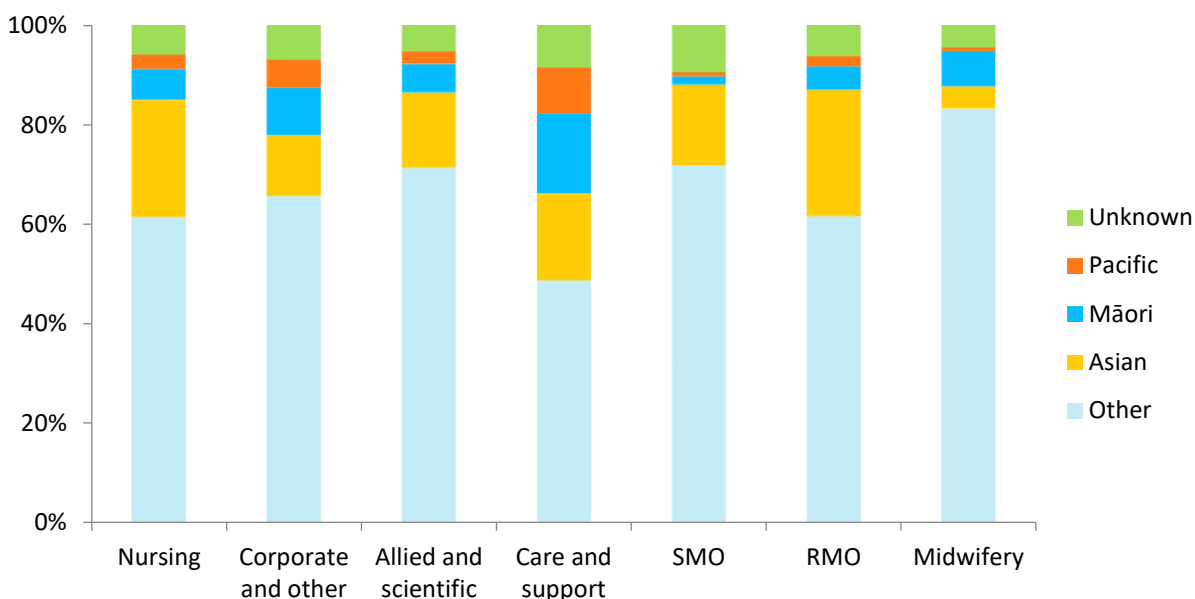| Occupation group	Other*		Asian		Māori		Pacific		Unknown		Total
Nursing	17,655	61.5%	6,739	23.5%	1,782	6.2%	874	3.0%	1,662	5.8%	28,712
Corporate and other	9,886	65.7%	1,814	12.1%	1,456	9.7%	865	5.8%	1,020	6.8%	15,041
Allied and scientific	8,530	71.3%	1,803	15.1%	687	5.7%	315	2.6%	622	5.2%	11,957
Care and support	3,765	48.8%	1,344	17.4%	1,244	16.1%	718	9.3%	645	8.4%	7,716
SMO	3,946	71.8%	885	16.1%	98	1.8%	52	0.9%	512	9.3%	5,493
RMO	2,634	61.7%	1,078	25.3%	202	4.7%	95	2.2%	260	6.1%	4,269
Midwifery	1,240	83.2%	66	4.4%	106	7.1%	12	0.8%	66	4.4%	1,490
Grand Total	47,656	63.8%	13,729	18.4%	5,575	7.5%	2,931	3.9%	4,787	6.4%	74,678

* '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 69,891 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 31 March 2019.

Figure 4: Proportion of identifiable ethnicities for all DHB employees
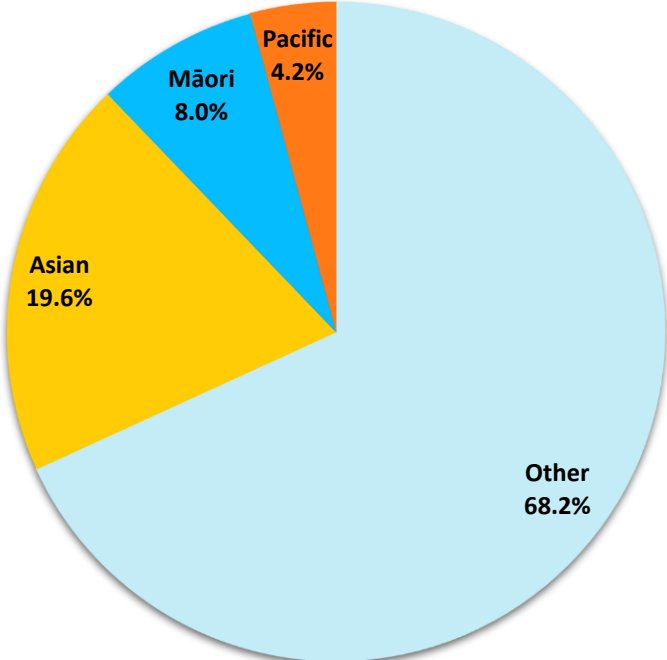
Figure 5: Proportion of identifiable ethnicities for projected population data at 31 March 2019
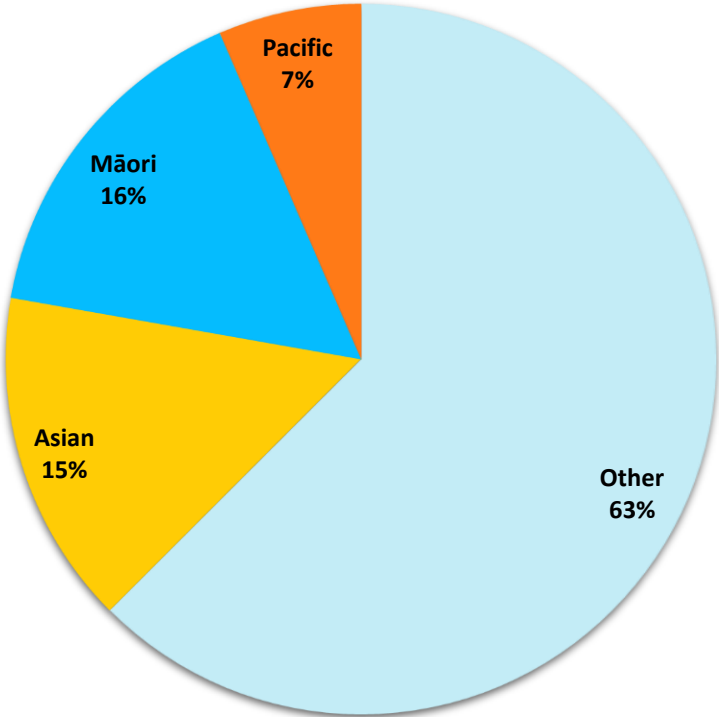
AGES AND LENGTH OF SERVICE

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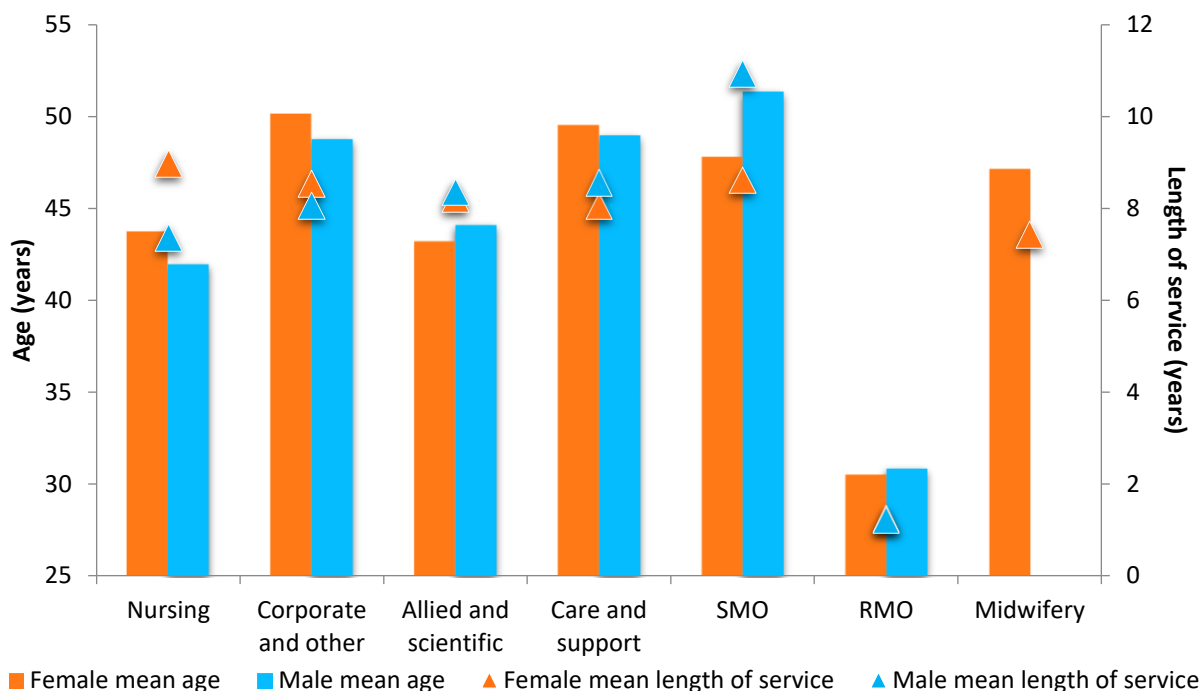
The following table gives the actual figures behind the chart above.

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	7.4	41.9	8.8	43.5
Corporate and other	8.5	50.1	8.1	48.7	8.4	49.8
Allied and scientific	8.2	43.2	8.4	44.1	8.2	43.4
Care and support	8.0	49.5	8.6	49.0	8.2	49.4
SMO	8.6	47.8	10.9	51.3	10.0	50.0
RMO	1.2	30.5	1.2	30.8	1.2	30.6
Midwifery	7.4	47.1	12.2	49.1	7.4	47.1
Grand Total	**8.3**	**45.3**	**7.7**	**45.0**	**8.2**	**45.2**

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.

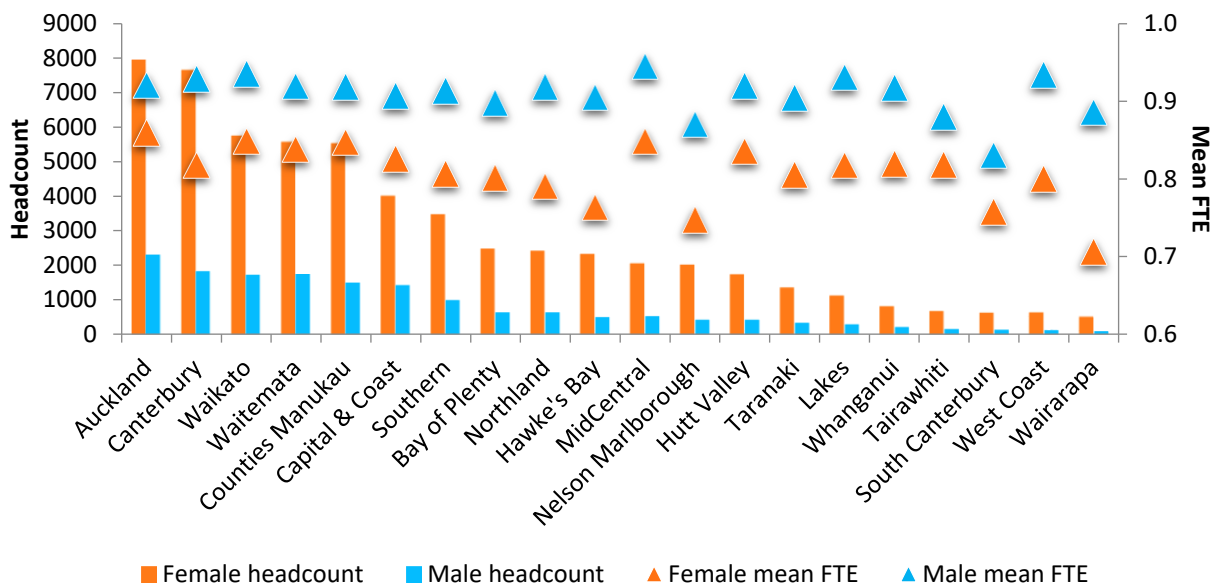**Figure 7: Headcount and mean FTE by gender and DHB**

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	Tairawhiti	South Canterbury	West Coast	Wairarapa
Female	Headcount	7926	7641	5743	5562	5524	4005	3481	2480	2415	2323	2055	2019	1741	1364	1125	817	675	629	636	517
	Mean FTE	0.86	0.82	0.85	0.84	0.85	0.83	0.81	0.80	0.79	0.76	0.85	0.75	0.84	0.81	0.82	0.82	0.82	0.76	0.80	0.71
Male	Headcount	2300	1828	1721	1745	1487	1425	992	634	637	499	525	428	427	344	291	208	158	136	123	92
	Mean FTE	0.92	0.93	0.94	0.92	0.92	0.91	0.91	0.90	0.92	0.91	0.95	0.87	0.92	0.91	0.93	0.92	0.88	0.83	0.93	0.89
Total	Headcount	10226	9469	7464	7307	7011	5430	4473	3114	3052	2822	2580	2447	2168	1708	1416	1025	833	765	759	609
	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	0.73

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.

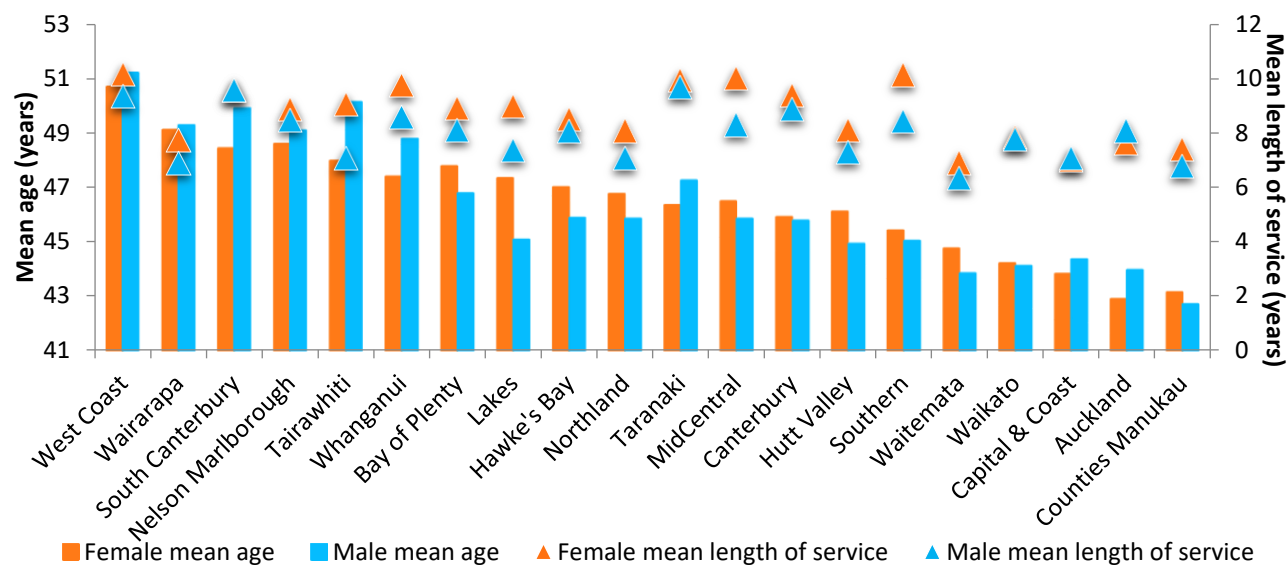**Figure 8: Mean ages and mean length of service by DHB and gender**

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	10.2	50.7	9.4	51.2	10.1	50.8
Wairarapa	7.7	49.1	6.9	49.3	7.6	49.1
South Canterbury	9.6	48.4	9.6	49.9	9.6	48.7
Nelson Marlborough	8.9	48.6	8.5	49.1	8.8	48.7
Tairawhiti	9.1	48.0	7.1	50.1	8.7	48.4
Whanganui	9.8	47.4	8.6	48.8	9.5	47.7
Bay of Plenty	8.9	47.8	8.1	46.8	8.8	47.6
Lakes	9.0	47.3	7.4	45.1	8.7	46.9
Hawke's Bay	8.5	47.0	8.1	45.9	8.4	46.8
Northland	8.1	46.8	7.1	45.9	7.9	46.6
Taranaki	9.9	46.3	9.7	47.3	9.9	46.5
MidCentral	10.0	46.5	8.3	45.9	9.7	46.4
Canterbury	9.4	45.9	8.9	45.8	9.3	45.9
Hutt Valley	8.1	46.1	7.3	44.9	7.9	45.9
Southern	10.1	45.4	8.5	45.0	9.8	45.3
Waitemata	6.9	44.8	6.3	43.8	6.8	44.5
Waikato	7.9	44.2	7.8	44.1	7.8	44.2
Capital & Coast	7.0	43.8	7.1	44.4	7.0	44.0
Auckland	7.6	42.9	8.1	44.0	7.7	43.1
Counties Manukau	7.4	43.1	6.8	42.7	7.3	43.0
Grand Total	**8.3**	**45.3**	**7.7**	**45.0**	**8.2**	**45.2**

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
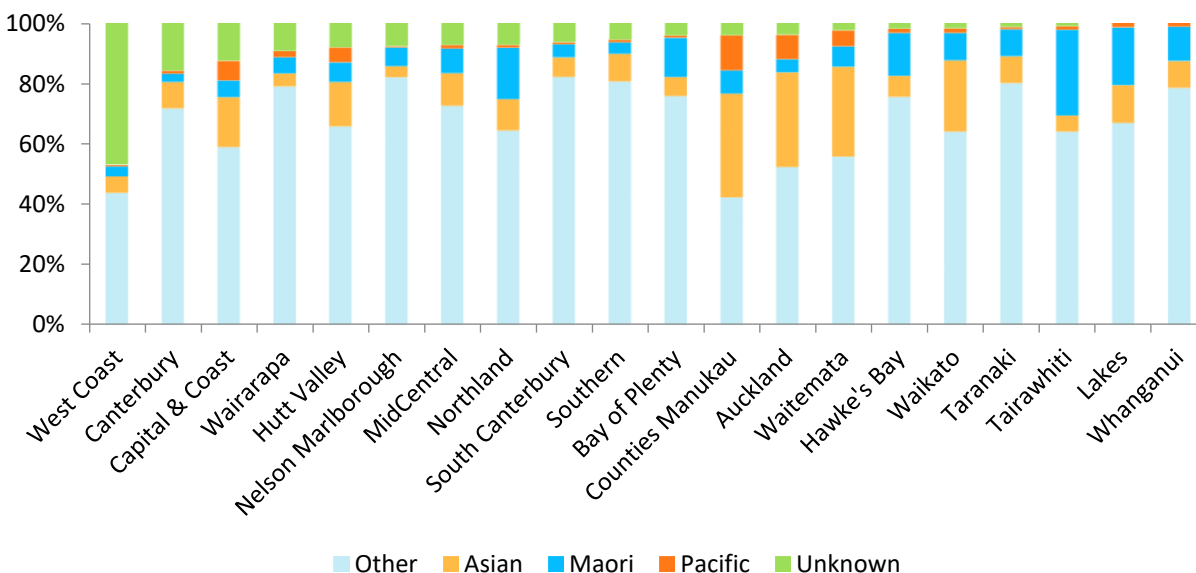
Table 8: Distribution of reported ethnicities by DHB

DHB	Other*	Asian	Māori	Pacific	Unknown	Total
West Coast	332	43	>24**	**	355	759
Canterbury	6,797	833	265	91	1,483	9,469
Capital & Coast	3,205	901	299	35	670	5,430
Wairarapa	481	27	33	12	56	609
Hutt Valley	1,426	322	141	105	174	2,168
Nelson Marlborough	2,010	91	150	10	186	2,447
MidCentral	1,874	280	211	31	184	2,580
Northland	1,967	320	519	29	217	3,052
South Canterbury	629	50	33	5	48	765
Southern	3,609	409	174	39	242	4,473
Bay of Plenty	2,364	199	401	25	125	3,114
Counties Manukau	2,961	2,420	536	820	274	7,011
Auckland	5,351	3,219	446	815	395	10,226
Waitemata	4,073	2,183	496	382	173	7,307
Hawke's Bay	2,134	199	398	40	51	2,822
Waikato	4,784	1,768	673	115	124	7,464
Taranaki	1,370	152	152	12	22	1,708
Tairawhiti	534	45	236	10	8	833
Lakes	949	177	270	20	0	1,416
Whanganui	806	91	116	12	0	1,025
Grand Total	47,656	13,729	>5,570**	>2,930**	4,787	74,678

* '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

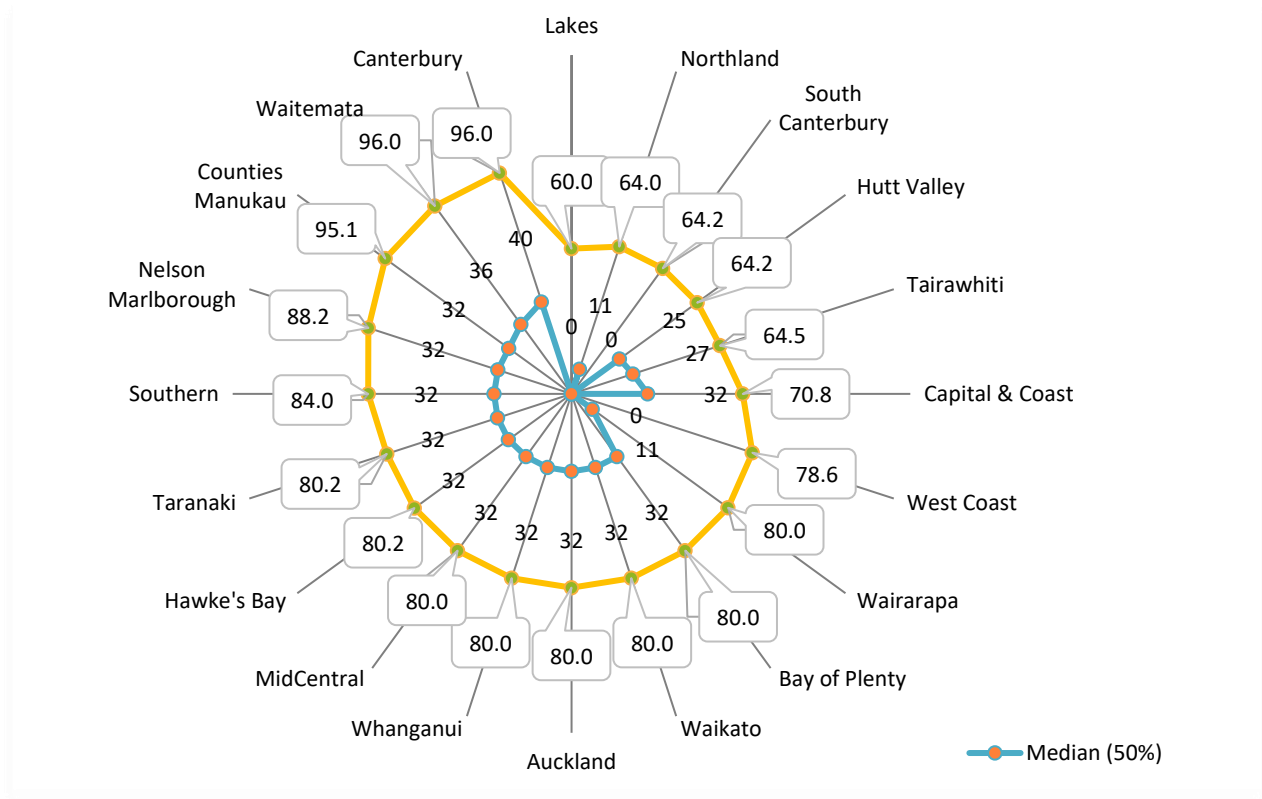| DHB	Nursing	Corporate and other	Allied and scientific	Care and support	SMO	RMO	Midwifery	All staff
West Coast	10.8	9.2	9.9	11.0	7.2	0.8	10.5	10.1
Taranaki	10.8	10.8	10.0	10.4	7.7	1.4	9.2	9.9
Southern	11.2	10.1	9.4	8.8	10.2	1.8	9.3	9.8
MidCentral	11.2	9.4	9.3	9.3	11.0	1.5	10.1	9.7
South Canterbury	10.5	8.8	10.0	11.3	8.6	0.8	7.0	9.6
Whanganui	9.9	9.7	10.2	9.8	10.2	0.8	9.9	9.5
Canterbury	10.4	8.5	9.5	9.5	11.1	2.1	8.9	9.3
Nelson Marlborough	10.0	7.4	8.5	10.0	10.3	1.1	6.6	8.8
Bay of Plenty	9.8	9.5	8.3	7.6	9.9	1.3	7.6	8.8
Tairawhiti	10.9	7.5	7.4	8.1	8.2	0.8	6.2	8.7
Lakes	9.6	9.1	9.5	9.3	7.3	1.2	5.8	8.7
Hawke's Bay	8.9	8.7	8.9	8.3	10.4	1.5	7.4	8.4
Hutt Valley	9.1	8.1	7.4	8.7	9.0	0.6	7.0	7.9
Northland	8.5	9.2	8.3	5.7	8.4	1.1	7.1	7.9
Waikato	8.4	8.5	7.9	6.9	10.2	1.8	5.9	7.8
Auckland	7.6	8.1	8.0	8.7	10.5	0.7	7.5	7.7
Wairarapa	8.3	6.6	8.2	7.6	8.8	0.4	4.9	7.6
Counties Manukau	7.4	8.4	6.7	7.5	10.1	0.6	7.0	7.3
Capital & Coast	7.1	7.2	6.9	8.8	10.1	1.1	7.0	7.0
Waitemata	6.6	7.1	7.5	6.4	9.7	0.7	6.7	6.8
Grand Total	**8.8**	**8.4**	**8.2**	**8.2**	**10.0**	**1.2**	**7.4**	**8.2**

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.
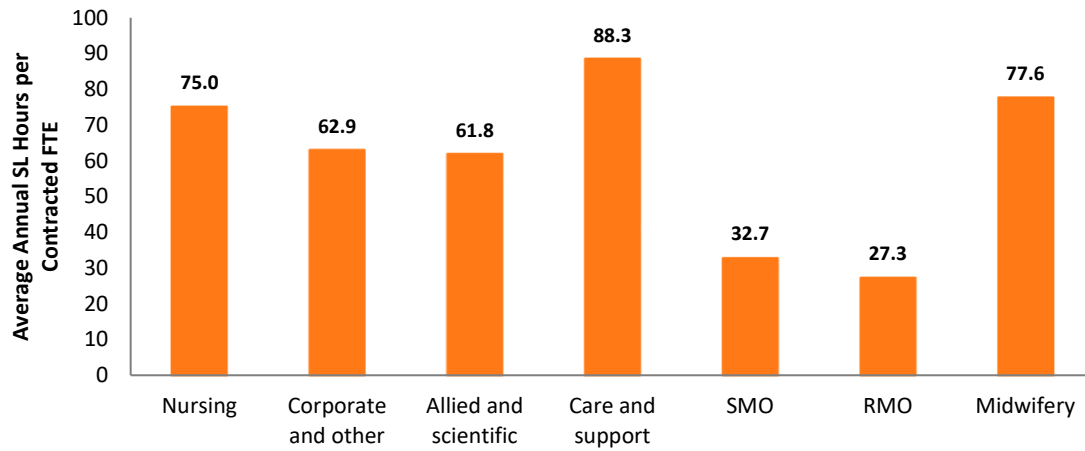
For example, the data for South Canterbury shows that 50% of staff took 0 hours sick leave or less (note comments on negative sick leave values above) per FTE in the March quarter, and 75% of staff took 64.2 hours or less of sick leave per FTE. The data for Southern shows that 50% of staff took 32 hours or less sick leave per FTE, and that 75% of staff took 84.0 hours or less of sick leave per FTE.

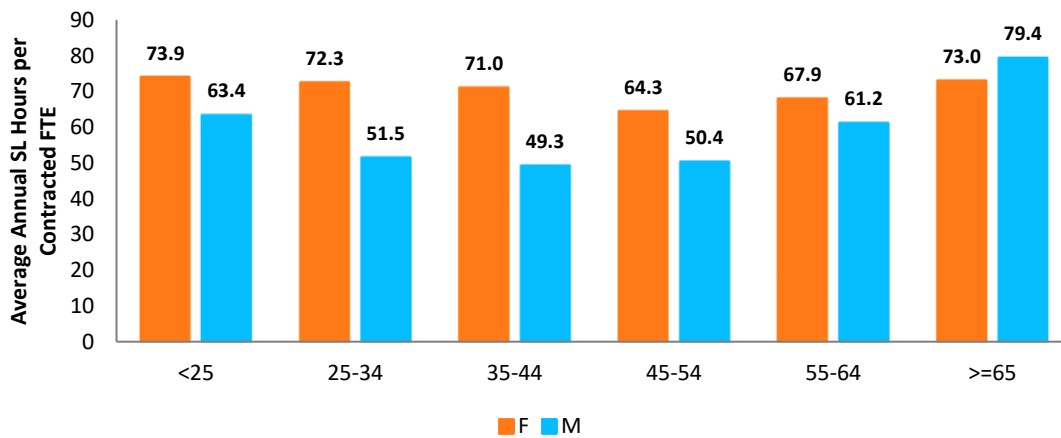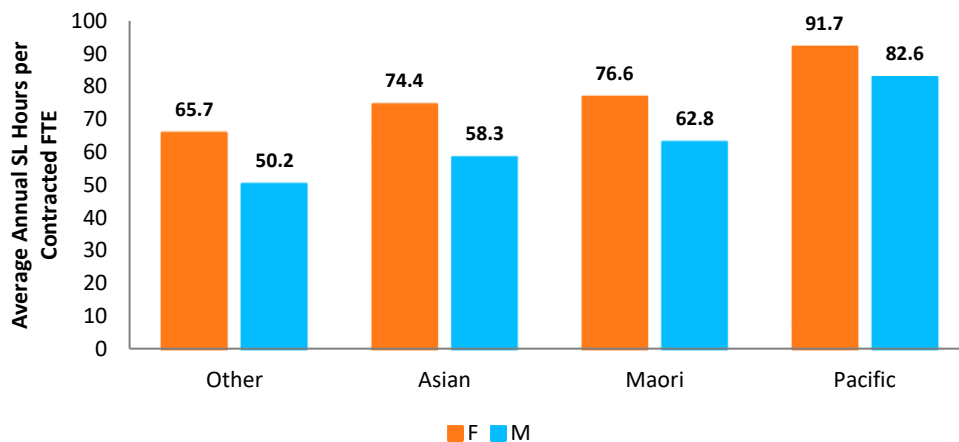**Figure 10: Average annualized sick leave hours per FTE by DHB**

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

Average Annual SL Hours per Contracted FTE

Nursing	75.0
Corporate and other	62.9
Allied and scientific	61.8
Care and support	88.3
SMO	32.7
RMO	27.3
Midwifery	77.6

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

Average Annual SL Hours per Contracted FTE

Age group	F	M
<25	73.9	63.4
25-34	72.3	51.5
35-44	71.0	49.3
45-54	64.3	50.4
55-64	67.9	61.2
>=65	73.0	79.4

F ■ M

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

Average Annual SL Hours per Contracted FTE

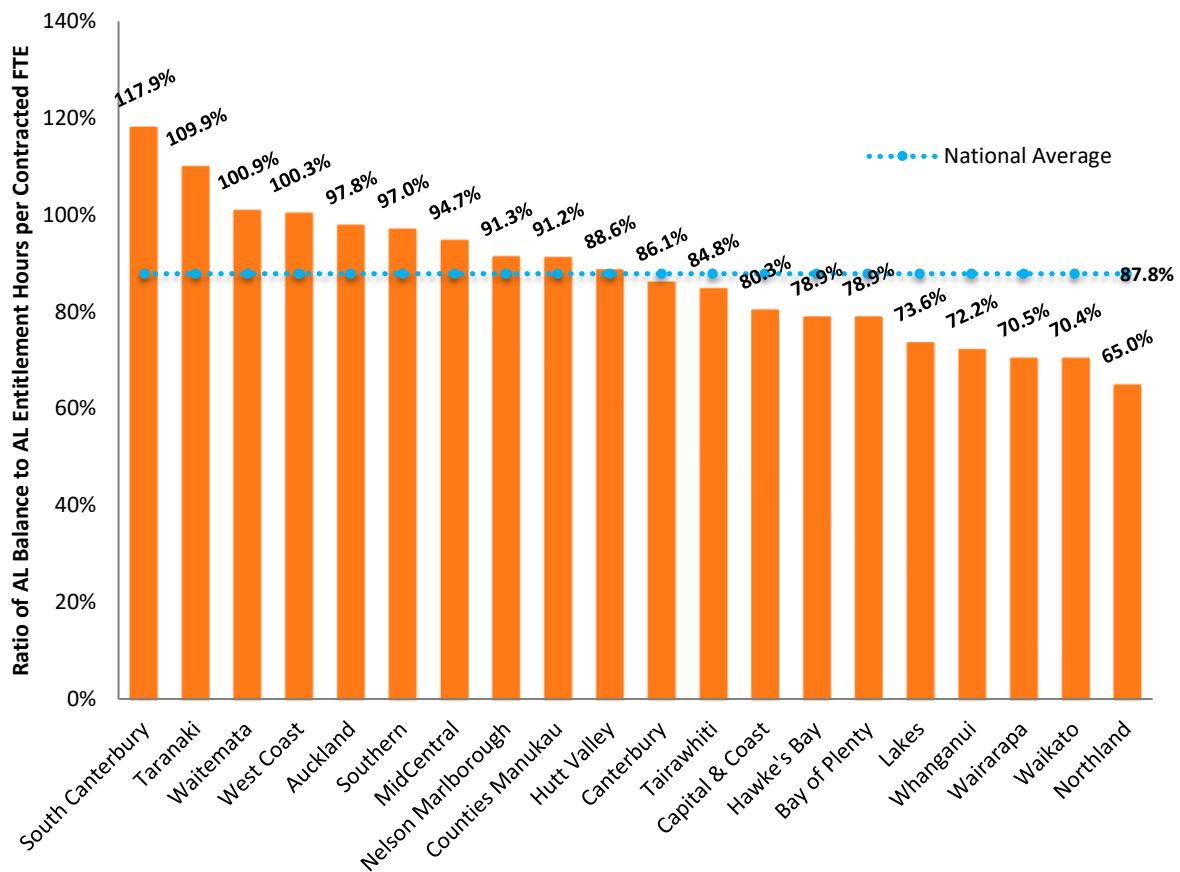| Ethnicity	F	M
Other	65.7	50.2
Asian	74.4	58.3
Maori	76.6	62.8
Pacific	91.7	82.6

F ■ M

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 red 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 four 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).
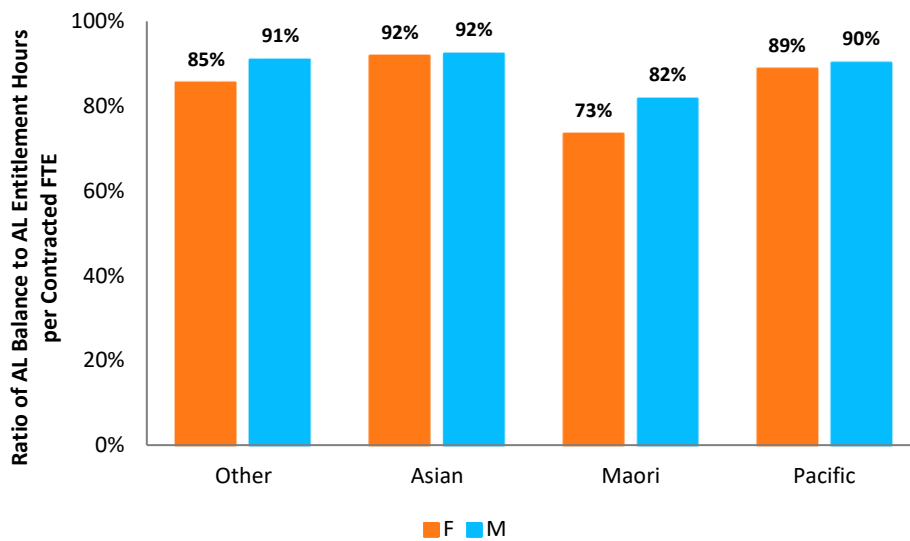
Figure 14: Ratio of annual leave balance to annual leave entitlement hours per FTE by DHB

Figure 15: Ratio of annual leave balance to annual leave entitlement hours per FTE by occupational group
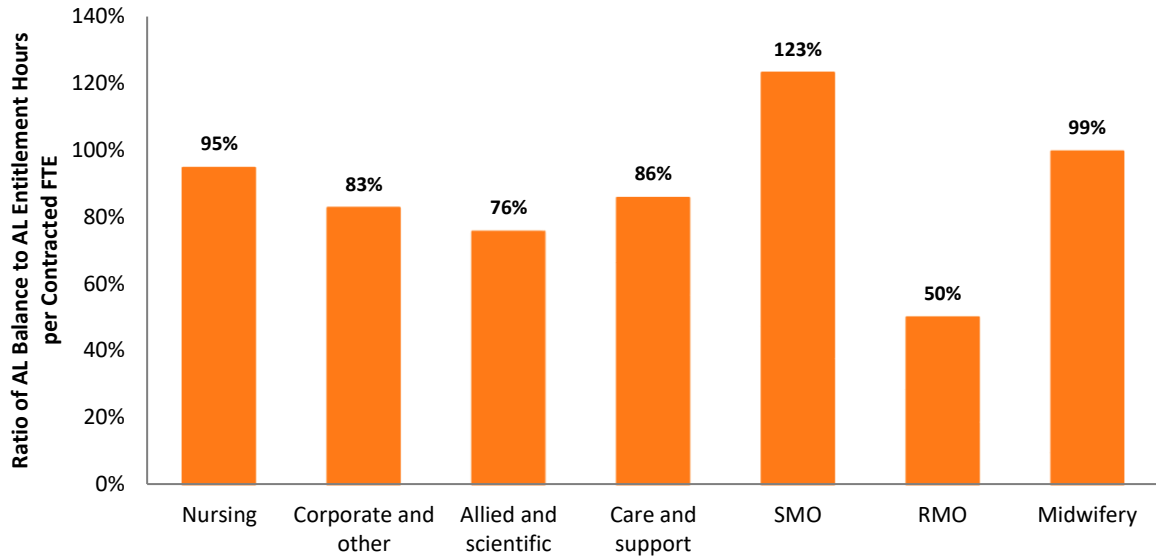
Figure 16: Ratio of annual leave balance to annual leave entitlement hours per FTE by ethnicity by gender

ANALYSIS BY POPULATION

DISTRIBUTION OF OVERALL DHB OCCUPATION 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 December 2018 quarter as reported in the Household Labour Force Survey (HLFS) by Statistics New Zealand.

Figure 17: Distribution of overall DHB occupation by age, with national employee data
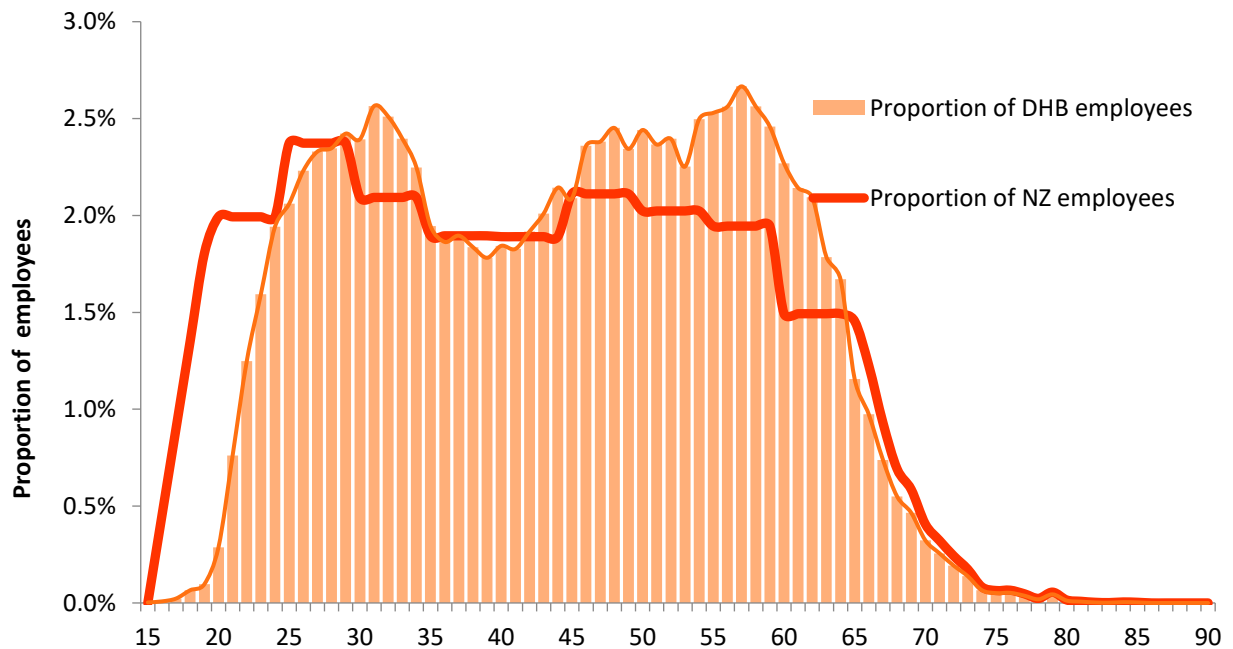
# ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION

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 93.6 percent, compared to 86.2 percent in March 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 -25% to +26% - 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.
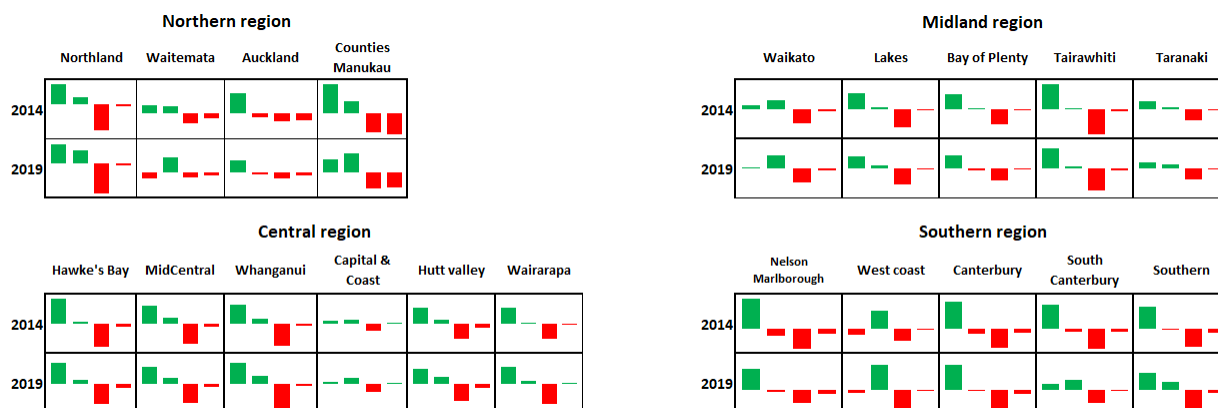

Note: The four bars are ordered as: Other, Asian, Māori and Pacific

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 six percentage points difference), whereas Māori have marginally less under-representation (from negative nine to negative eight percentage points difference).

POPULATION DENSITY BY WORKFORCE 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
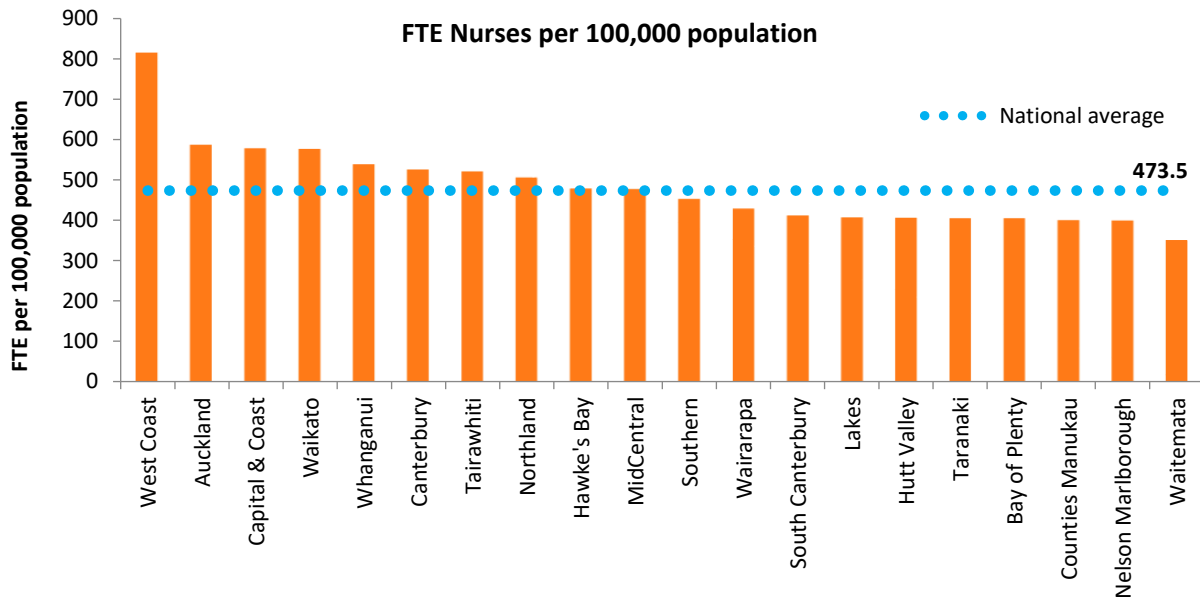
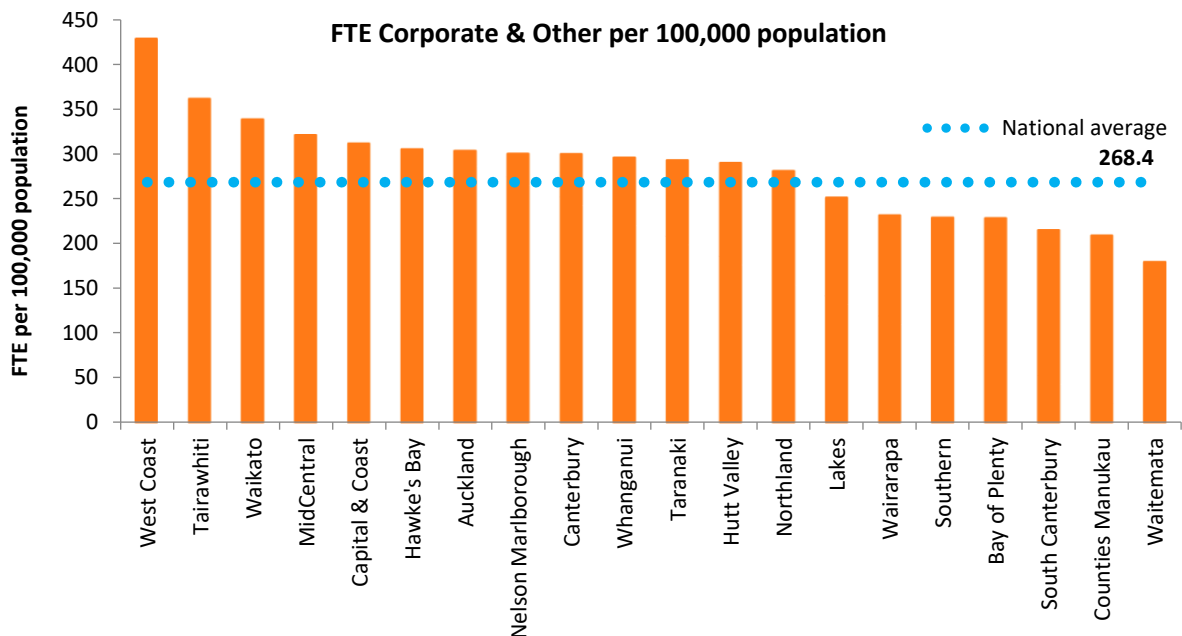**Figure 19: Population density of Corporate & Other by DHB**

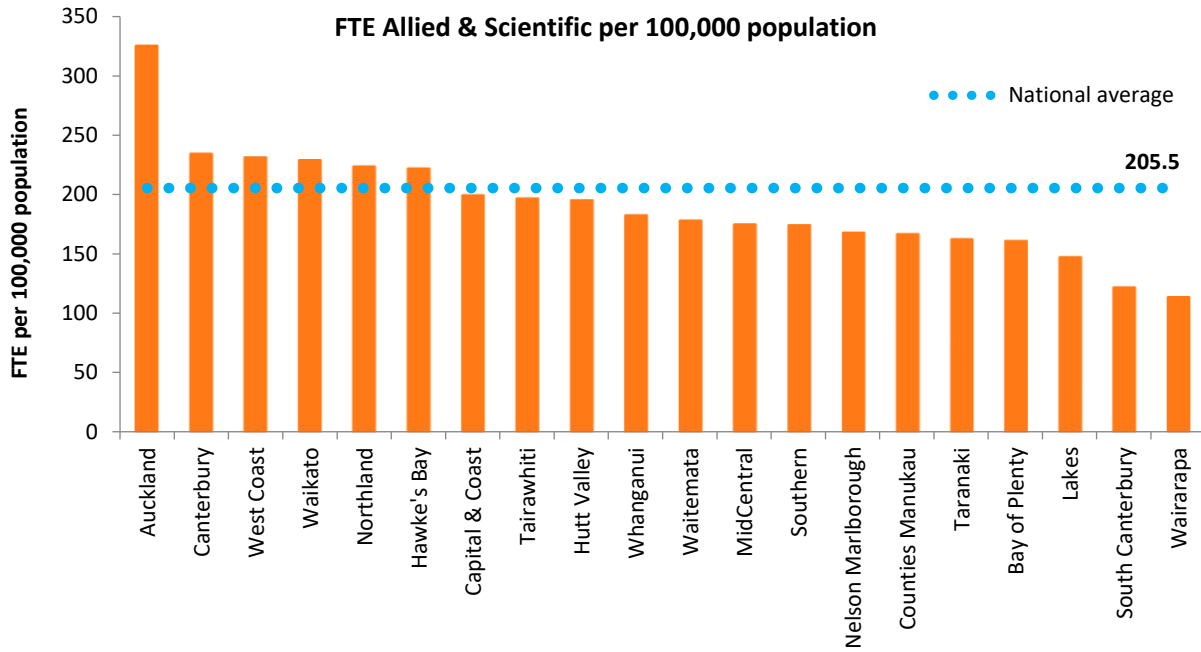**Figure 20: Population density of Allied & Scientific by DHB**

FTE Allied & Scientific per 100,000 population

Figure 21: Population density of Care & Support by DHB

FTE Care & Support per 100,000 population
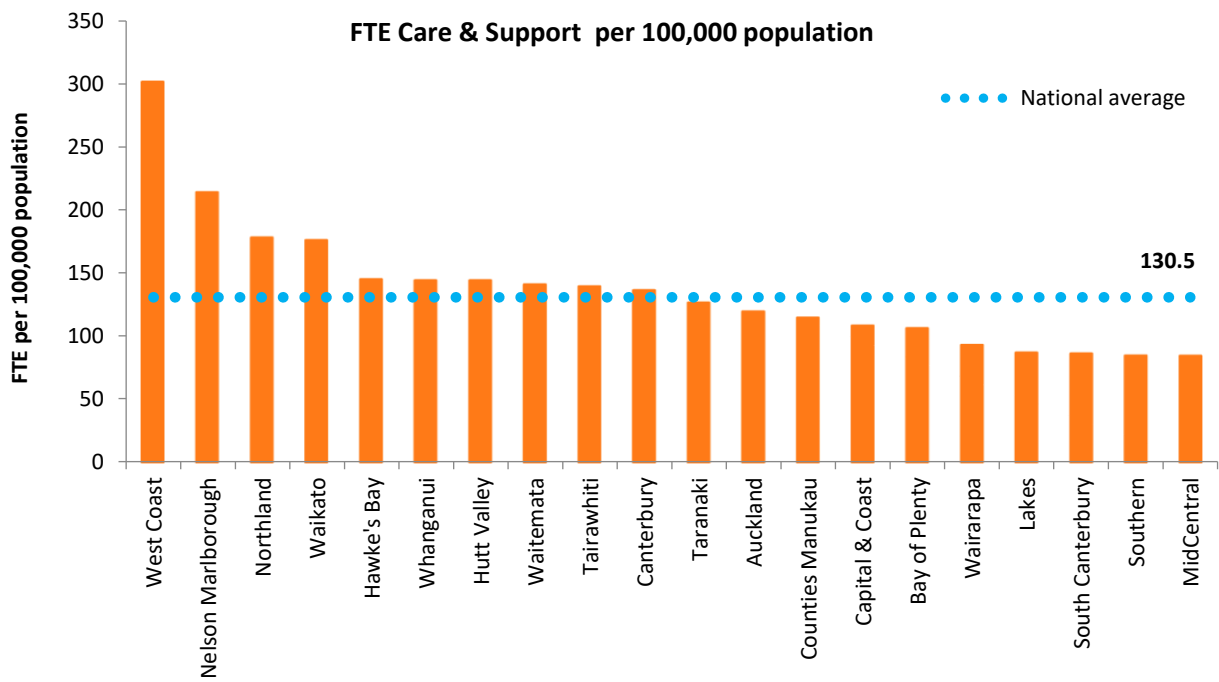
Figure 22: Population density of Senior Medical Officer (SMO) by DHB

FTE Senior Medical Officer (SMO) per 100,000 population

National average

93.4
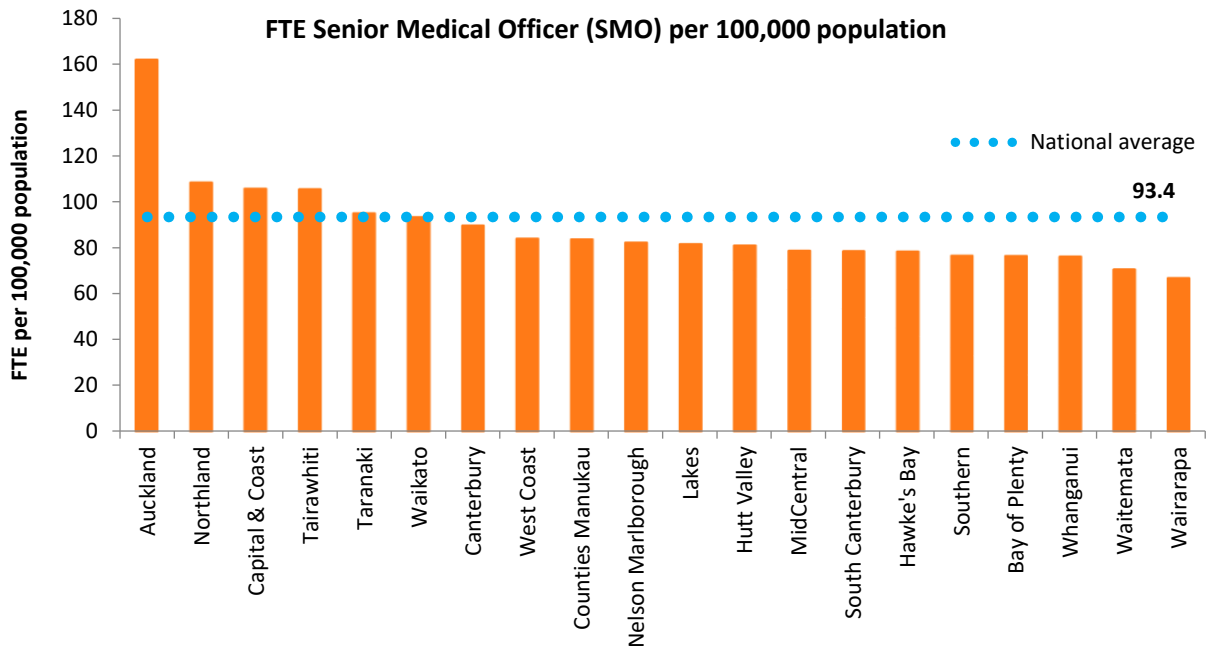
Figure 23: Population density of Resident Medical Officer (RMO) by DHB

FTE Resident Medical Officer (RMO) per 100,000 population

National average

85.0
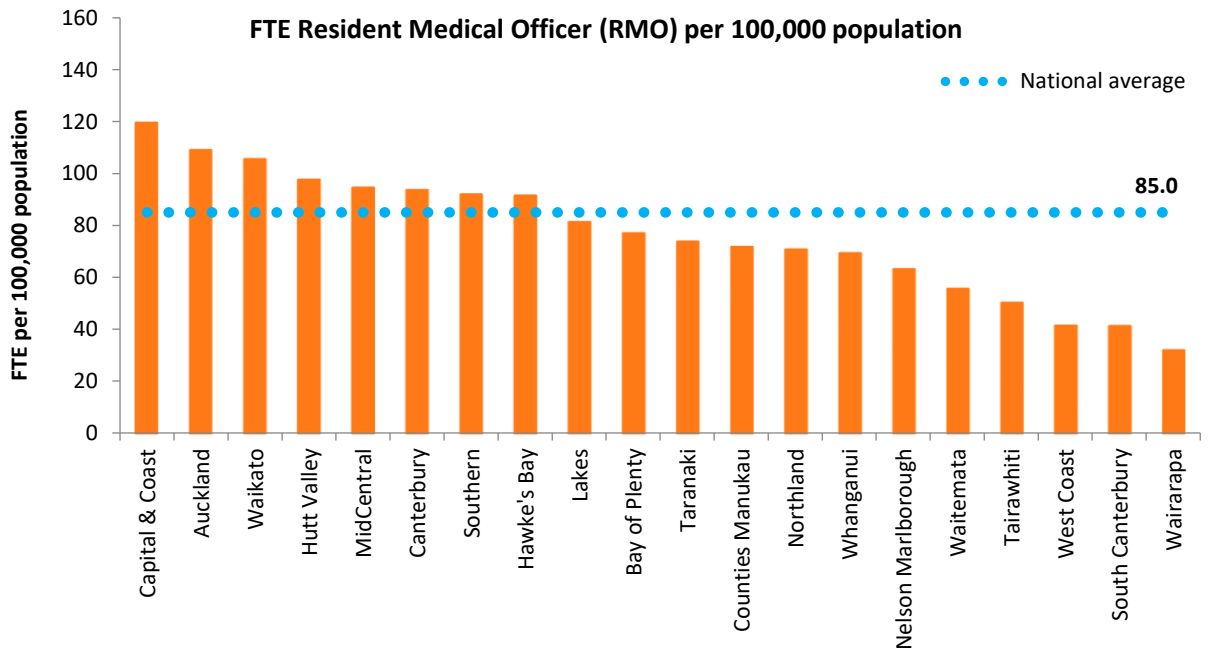
Figure 24: Population density of Midwives by DHB

FTE Midwives per 100,000 population (Female aged 15-49)

National average — 90.1

DHBs (left to right): Tairawhiti, Wairarapa, Whanganui, West Coast, South Canterbury, Northland, Hawke's Bay, Nelson Marlborough, Lakes, Waikato, Counties Manukau, MidCentral, Taranaki, Hutt Valley, Capital & Coast, Bay of Plenty, Auckland, Southern, Waitemata, Canterbury
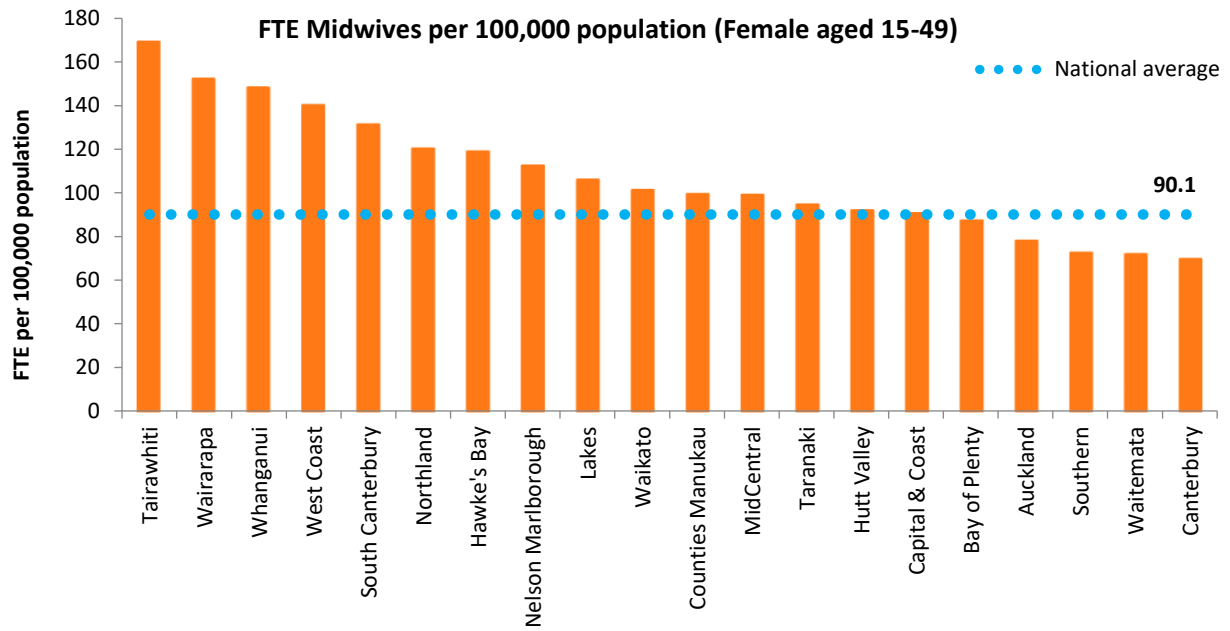
Figure 25: Population density of all DHB staff by DHB

FTE All Staff per 100,000 population

National average — 1277.4

DHBs (left to right): West Coast, Auckland, Waikato, Capital & Coast, Tairawhiti, Canterbury, Northland, Hawke's Bay, Whanganui, MidCentral, Nelson Marlborough, Hutt Valley, Taranaki, Southern, Lakes, Bay of Plenty, Counties Manukau, Wairarapa, Waitemata, South Canterbury