DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT

1 JANUARY TO 31 MARCH 2018

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 2018 to 31 March 2018 and is a snapshot in time at 31 March 2018. 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
- Junior medical
- 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 2018 to March 2018 inclusive and is a snapshot taken by the DHBs on 31 March2018.

- While every effort has been made to ensure the report is correct this extract relies upon the quality of the data supplied. Consideration must be made to the fact that the data is extracted from multiple systems within the DHBs. TAS gives no guarantee that the information supplied is free from error.

- The data quality continues to improve as the Workforce Information team works closely with the DHBs to help manage and improve the data submitted.

Contact: DHBWI@tas.health.nz

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 2018, 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.

Total employees 71,916 **56,496 female** **15,420 male**	**60,546 FTE*** **46,406 FTE* females** **14,140 FTE* males**	**Largest occupation group:** **Nurses – 27,634** **Smallest occupation group:** **Midwives – 1,413**
DHB employee average age 45.4 years **45.5 years for females** **45.2 years for males**	**Oldest male occupation group:** **Senior Medical (mean age 51.3 years)** **Youngest male occupation group:** **Junior medical (mean age 30.7 years)**	**Oldest female occupation groups:** **Corporate and other (mean age 50.3 years)** **Youngest female occupation group:** **Junior medical (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** **Senior medical (mean 10.0 years)** **Shortest Length of Service occupation group** **Junior medical (mean 1.2 years)**	**Employee reported ethnicities:** **Other** – 70%** **Asian – 18%** **Māori – 8%** **Pacific – 4%**

*   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 do not have 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
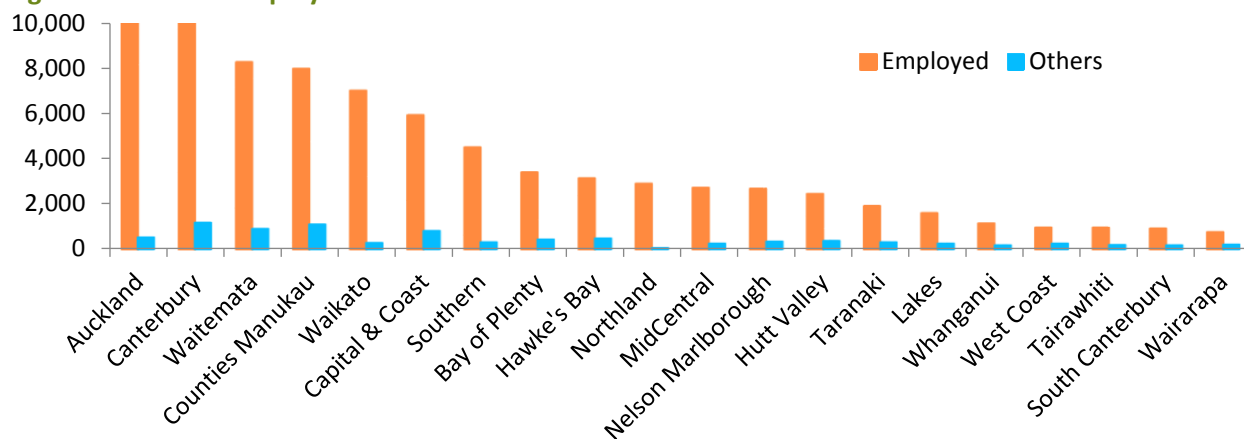
Table 1: Distribution of employment types

DHB	Employed	Others	Total	Proportion of DHB workforce
Auckland	9,745	488	10,233	12.8%
Canterbury	9,039	1110	10,149	12.7%
Waitemata	7,440	851	8,291	10.4%
Counties Manukau	6,982	1027	8,009	10.0%
Waikato	6,773	260	7,033	8.8%
Capital & Coast	5,195	763	5,958	7.4%
Southern	4,244	293	4,537	5.7%
Bay of Plenty	3,013	407	3,420	4.3%
Hawke's Bay	2,712	452	3,164	4.0%
Northland	2,878	52	2,930	3.7%
MidCentral	2,506	231	2,737	3.4%
Nelson Marlborough	2,375	318	2,693	3.4%
Hutt Valley	2,123	349	2,472	3.1%
Taranaki	1,627	299	1,926	2.4%
Lakes	1,380	237	1,617	2.0%
Whanganui	993	162	1,155	1.4%
West Coast	749	232	981	1.2%
Tairawhiti	789	185	974	1.2%
South Canterbury	761	171	932	1.2%
Wairarapa	592	190	782	1.0%
Grand Total	**71,916**	**8,077**	**79,993**	**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 sex 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			Senior medical			Junior medical			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	3597	3040.9	0.85	1685	1479.9	0.88	1973	1717.8	0.87	699	638.3	0.91	1028	830.9	0.81	599	591.5	0.99	164	124.3	0.76
Bay of Plenty	1233	944.7	0.77	616	546.9	0.89	413	347.5	0.84	298	246.7	0.83	217	180.1	0.83	182	181.3	1.00	54	38.8	0.72
Canterbury	3491	2871.4	0.82	1827	1583.9	0.87	1560	1289.4	0.83	955	748.2	0.78	564	475.4	0.84	507	498.7	0.98	135	88.8	0.66
Capital & Coast	2143	1725.6	0.81	1064	969.3	0.91	723	621.3	0.86	380	334.0	0.88	407	321.3	0.79	359	350.0	0.97	119	86.0	0.72
Counties Manukau	2730	2331.6	0.85	1277	1082.9	0.85	1152	998.9	0.87	703	613.8	0.87	556	463.6	0.83	409	402.0	0.98	155	112.2	0.72
Hawke's Bay	1040	739.7	0.71	575	492.4	0.86	427	350.2	0.82	298	236.5	0.79	152	130.9	0.86	150	148.1	0.99	70	44.6	0.64
Hutt Valley	710	580.2	0.82	479	433.1	0.90	349	285.8	0.82	237	206.1	0.87	155	119.5	0.77	147	144.6	0.98	46	33.2	0.72
Lakes	543	427.1	0.79	306	272.5	0.89	196	168.9	0.86	121	97.1	0.80	91	81.0	0.89	88	88.0	1.00	35	26.2	0.75
MidCentral	1019	833.0	0.82	575	524.0	0.91	358	316.7	0.88	176	141.9	0.81	165	145.4	0.88	150	147.7	0.98	63	41.5	0.66
Nelson Marlborough	793	588.5	0.74	524	421.1	0.80	310	231.4	0.75	461	334.9	0.73	156	127.7	0.82	90	89.5	0.99	41	27.7	0.68
Northland	1127	852.6	0.76	552	481.0	0.87	458	377.6	0.82	369	289.3	0.78	191	188.1	0.98	121	119.7	0.99	60	37.8	0.63
South Canterbury	330	255.9	0.78	157	124.1	0.79	93	72.3	0.78	78	53.3	0.68	61	44.5	0.73	25	24.9	1.00	17	13.4	0.79
Southern	1781	1416.8	0.80	833	737.4	0.89	637	540.2	0.85	335	266.6	0.80	304	244.9	0.81	279	269.9	0.97	75	52.2	0.70
Tairawhiti	322	246.4	0.77	182	161.7	0.89	104	90.1	0.87	82	67.0	0.82	56	49.7	0.89	21	20.6	0.98	22	16.5	0.75
Taranaki	609	504.0	0.83	371	334.0	0.90	241	195.9	0.81	174	145.9	0.84	116	99.0	0.85	85	84.0	0.99	31	23.4	0.75
Waikato	2549	2113.8	0.83	1498	1331.4	0.89	1015	884.8	0.87	749	632.4	0.84	425	372.1	0.88	430	423.6	0.99	107	75.5	0.71
Wairarapa	258	182.9	0.71	139	108.9	0.78	67	50.0	0.75	57	38.0	0.67	35	30.1	0.86	15	14.4	0.96	21	12.6	0.60
Waitemata	2630	2211.2	0.84	1290	1126.8	0.87	1419	1185.1	0.84	994	882.8	0.89	541	461.4	0.85	404	396.0	0.98	162	106.9	0.66
West Coast	304	258.6	0.85	162	135.6	0.84	84	73.2	0.87	141	98.7	0.70	29	25.0	0.86	16	16.0	1.00	13	8.3	0.64
Whanganui	425	345.3	0.81	208	182.8	0.88	135	112.0	0.83	112	90.6	0.81	51	46.7	0.92	39	38.8	0.99	23	17.8	0.77
Grand Total	27634	22470.3	0.81	14320	12529.9	0.87	11714	9909.2	0.85	7419	6162.3	0.83	5300	4437.2	0.84	4116	4049.2	0.98	1413	987.7	0.70

TABLES AND CHARTS BY OCCUPATION GROUPING

HEADCOUNT AND FTE BY OCCUPATION GROUPING AND SEX

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

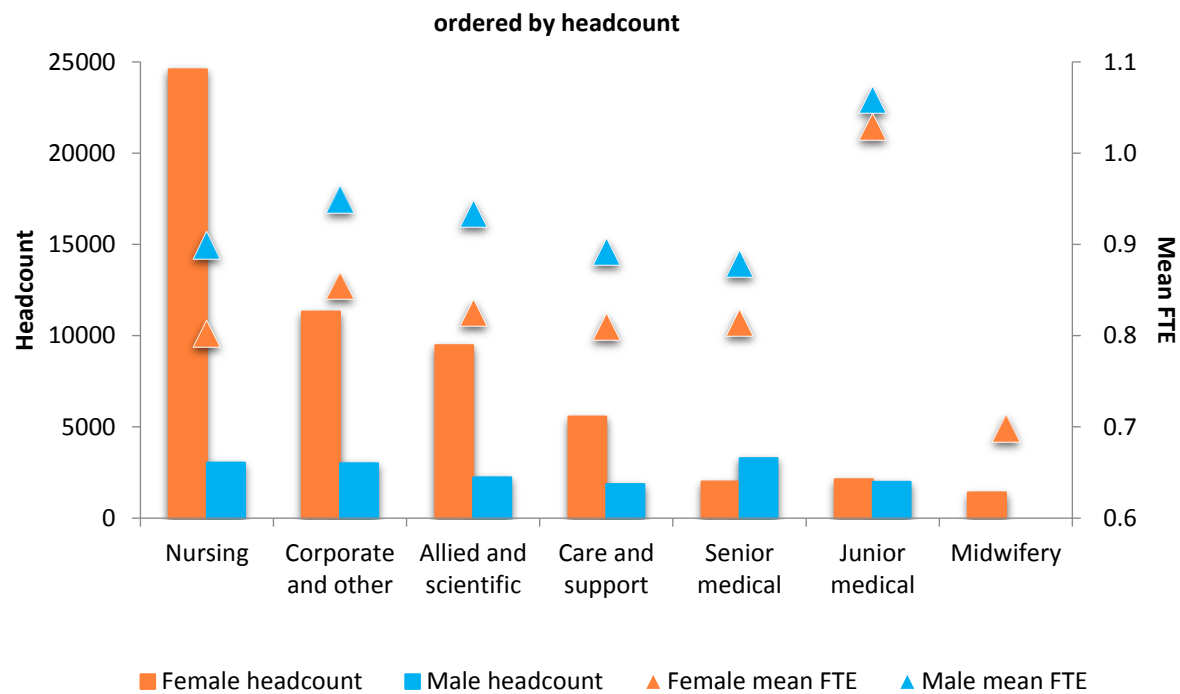**Figure 2: Occupation group headcount and mean FTE by sex**

Table 3: Occupation group headcount and mean FTE by sex

Occupation group	Female		Male		Total	
	Headcount	Mean FTE	Headcount	Mean FTE	Headcount	Mean FTE
Nursing	24,596	0.80	3,038	0.90	27,634	0.81
Corporate and other	11,311	0.86	3,009	0.95	14,320	0.87
Allied and scientific	9,480	0.83	2,234	0.93	11,714	0.85
Care and support	5,559	0.81	1,860	0.89	7,419	0.83
Senior medical	2,006	0.80	3,294	0.86	5,300	0.84
Junior medical	>2,130	0.97	>1,978	0.99	4,116	0.98
Midwifery	>1,406	0.70	**	**	1,413	0.70
Grand Total	**56,496**	**0.82**	**15,420**	**0.92**	**71,916**	**0.84**

** Data suppressed due to low 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.

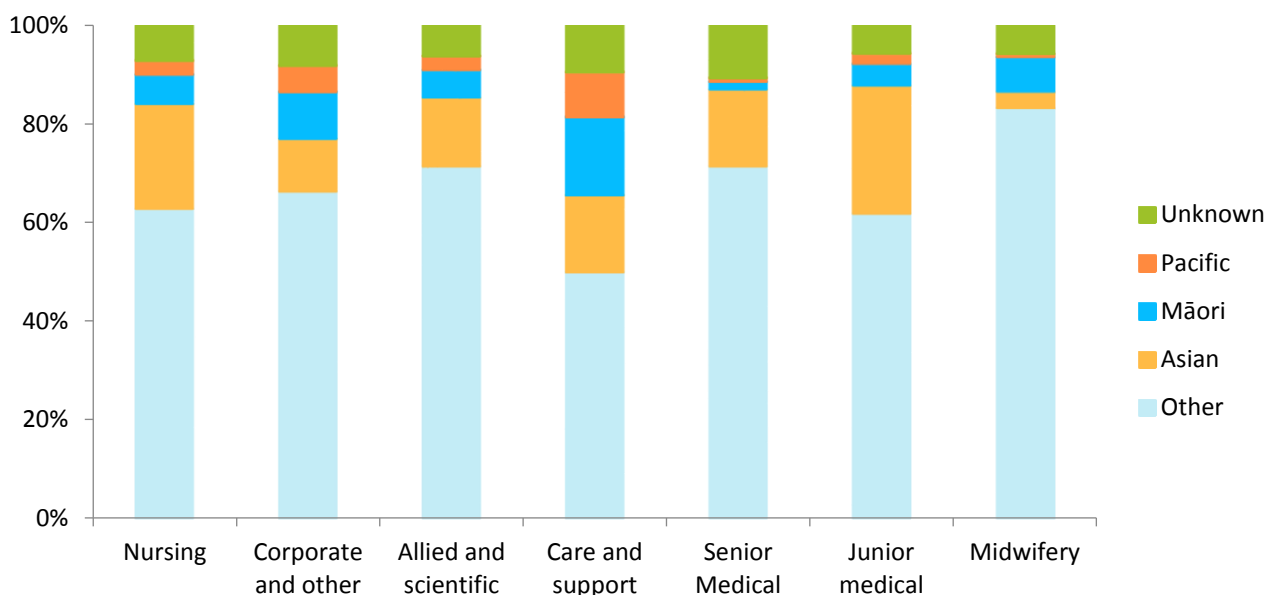**Figure 3: Proportion of ethnicities by occupation group**

Table 4: Count and proportion of ethnicities by occupation group

Occupation group	Other*		Asian		Māori		Pacific		Unknown		Total
Nursing	17,336	62.7%	5,875	21.3%	1,659	6.0%	807	2.9%	1,957	7.1%	27,634
Corporate and other	9,484	66.2%	1,543	10.8%	1,363	9.5%	778	5.4%	1,152	8.0%	14,320
Allied and scientific	8,356	71.3%	1,637	14.0%	655	5.6%	341	2.9%	725	6.2%	11,714
Care and support	3,707	50.0%	1,162	15.7%	1,182	15.9%	672	9.1%	696	9.4%	7,419
Senior Medical	3,779	71.3%	828	15.6%	86	1.6%	49	0.9%	558	10.5%	5,300
Junior medical	2,543	61.8%	1,067	25.9%	181	4.4%	91	2.2%	234	5.7%	4,116
Midwifery	1,175	83.2%	47	3.3%	99	7.0%	11	0.8%	81	5.7%	1,413
Grand Total	46,380	64.5%	12,159	16.9%	5,225	7.3%	2,749	3.8%	5,403	7.5%	71,916

* '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 66,512 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 2018.

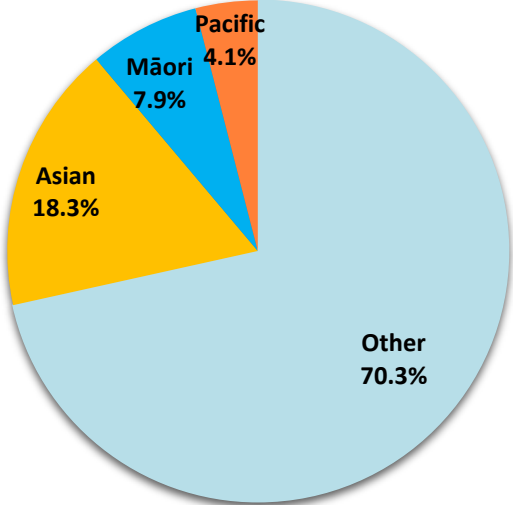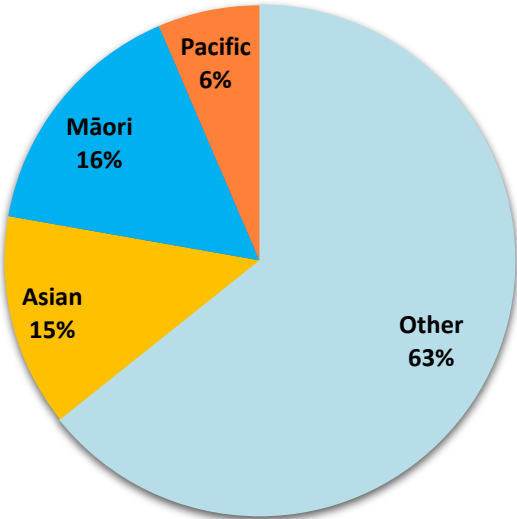**Figure 4: Proportion of identifiable ethnicities for all DHB employees**

Figure 5: Proportion of identifiable ethnicities for projected population data at 31 March 2018

AGES AND LENGTH OF SERVICE

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

The bars in this chart show the average age (left hand axis) for each occupation group by sex. The triangles represent the average length of service (right hand axis), also by occupation group and sex.
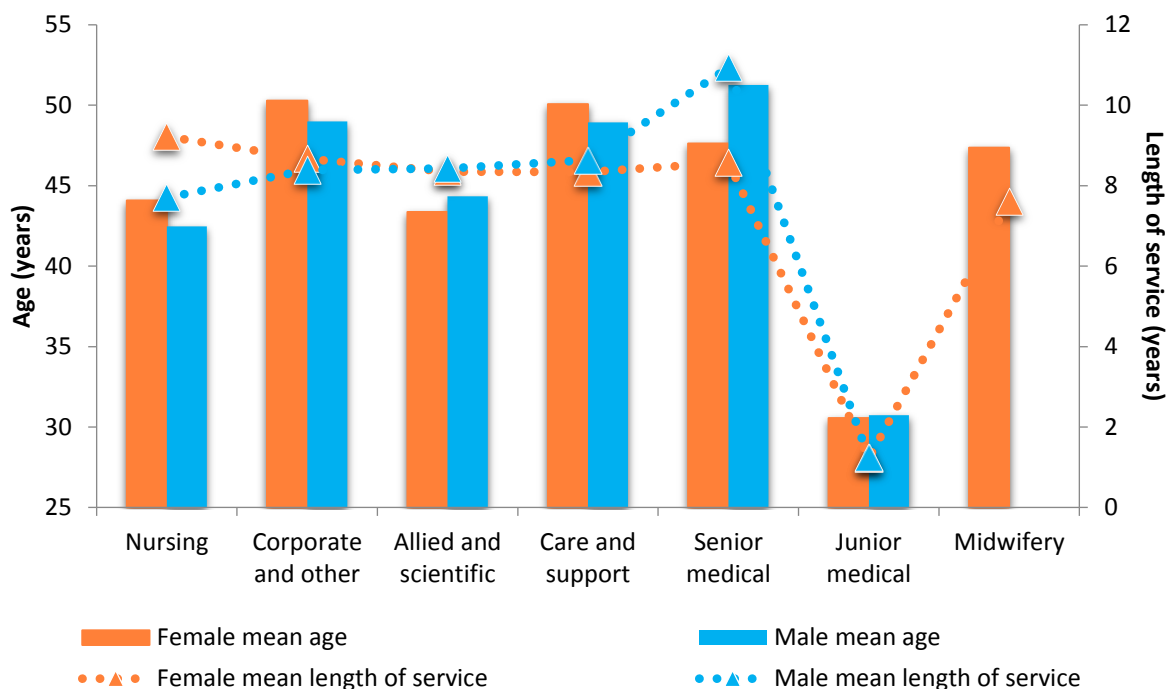
The following table gives the actual figures behind the chart above.

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

	Female		Male		Total	
Occupation group	**Mean length of service**	**Mean age**	**Mean length of service**	**Mean age**	**Mean length of service**	**Mean age**
Nursing	9.2	44.1	7.7	42.5	9.1	43.9
Corporate and other	8.7	50.3	8.4	49.0	8.6	50.0
Allied and scientific	8.3	43.4	8.4	44.3	8.4	43.6
Care and support	8.3	50.1	8.6	48.9	8.4	49.8
Senior medical	8.6	47.6	10.9	51.3	10.0	49.9
Junior medical	1.2	30.5	1.2	30.7	1.2	30.6
Midwifery	7.6	47.4	11.2	48.1	7.6	47.4
Grand Total	**8.5**	**45.5**	**7.9**	**45.2**	**8.4**	**45.4**

** Data suppressed for privacy (headcount less than 5)

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 SEX AND DHB

This chart examines the number (headcount) of employees by sex 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 sex). The following table shows the count of employees and mean FTE by sex for each DHB.
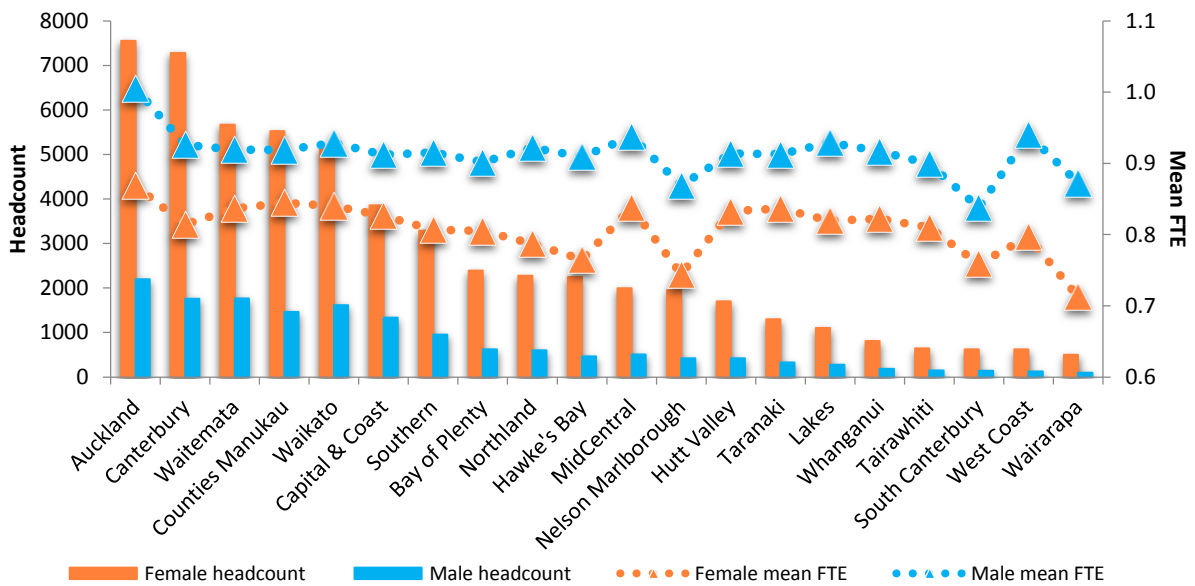
Figure 7: Headcount and mean FTE by sex and DHB

Table 6: Headcount and mean FTE by sex and DHB

		Auckland	Canterbury	Waitemata	Counties Manukau	Waikato	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	7550	7278	5672	5522	5157	3860	3290	2394	2277	2247	1998	1952	1702	1300	1106	807	643	623	621	497
	Mean FTE	0.85	0.81	0.84	0.84	0.84	0.83	0.81	0.81	0.79	0.77	0.84	0.74	0.83	0.84	0.82	0.82	0.81	0.76	0.80	0.71
Male	Headcount	2195	1761	1768	1460	1616	1335	954	619	601	465	508	423	421	327	274	186	146	138	128	95
	Mean FTE	0.92	0.93	0.92	0.92	0.93	0.91	0.92	0.90	0.92	0.91	0.94	0.87	0.91	0.91	0.93	0.92	0.90	0.84	0.94	0.87
Total	Headcount	9745	9039	7440	6982	6773	5195	4244	3013	2878	2712	2506	2375	2123	1627	1380	993	789	761	749	592
	Mean FTE	0.86	0.84	0.86	0.86	0.86	0.85	0.83	0.83	0.82	0.79	0.86	0.77	0.85	0.85	0.84	0.84	0.83	0.77	0.82	0.74

MEAN AGES AND MEAN LENGTH OF SERVICE BY DHB AND SEX

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

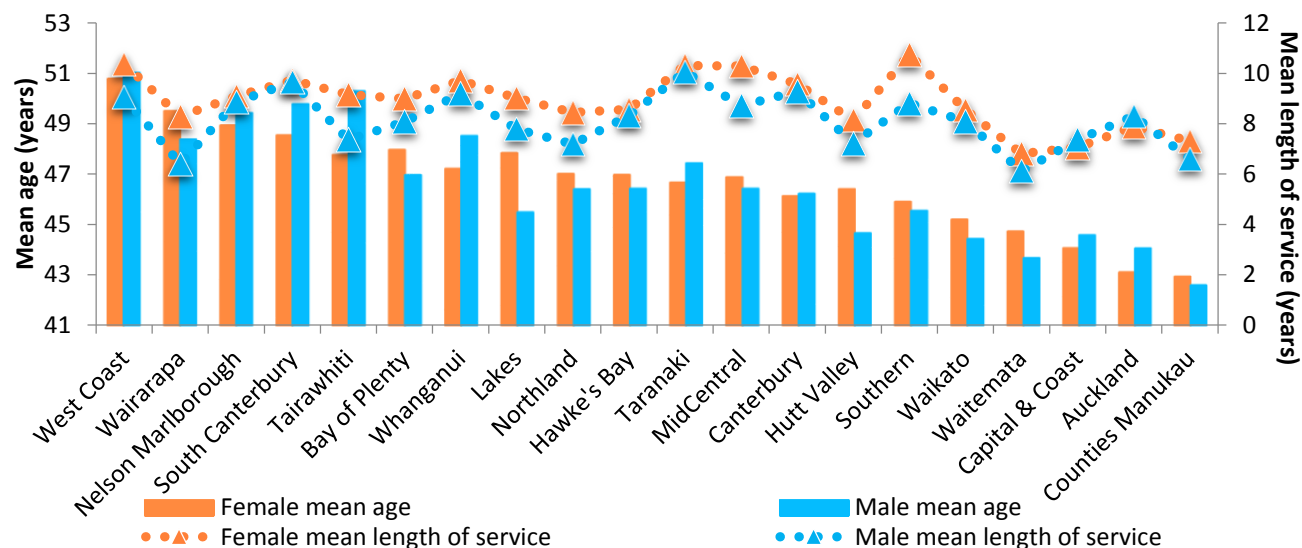**Figure 8: Mean ages and mean length of service by DHB and sex**

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

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	10.4	50.7	9.1	51.0	10.1	50.8
Wairarapa	8.3	49.5	6.4	48.4	8.0	49.3
Nelson Marlborough	9.1	48.9	8.9	49.4	9.1	49.0
South Canterbury	9.7	48.5	9.6	49.8	9.7	48.7
Tairawhiti	9.2	47.7	7.4	50.3	8.8	48.2
Bay of Plenty	9.0	47.9	8.1	46.9	8.8	47.7
Whanganui	9.7	47.2	9.2	48.5	9.6	47.4
Lakes	9.0	47.8	7.8	45.5	8.8	47.4
Northland	8.4	47.0	7.2	46.4	8.2	46.9
Hawke's Bay	8.6	47.0	8.3	46.4	8.5	46.9
Taranaki	10.3	46.7	10.1	47.4	10.3	46.8
MidCentral	10.3	46.9	8.7	46.4	10.0	46.8
Canterbury	9.6	46.1	9.3	46.2	9.5	46.1
Hutt Valley	8.1	46.4	7.2	44.7	8.0	46.0
Southern	10.7	45.9	8.8	45.5	10.3	45.8
Waikato	8.5	45.2	8.1	44.4	8.4	45.0
Waitemata	6.8	44.7	6.1	43.7	6.6	44.5
Capital & Coast	7.1	44.1	7.4	44.6	7.1	44.2
Auckland	7.9	43.1	8.3	44.1	8.0	43.3
Counties Manukau	7.3	42.9	6.6	42.6	7.2	42.9
Grand Total	**8.5**	**45.5**	**7.9**	**45.2**	**8.4**	**45.4**

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.

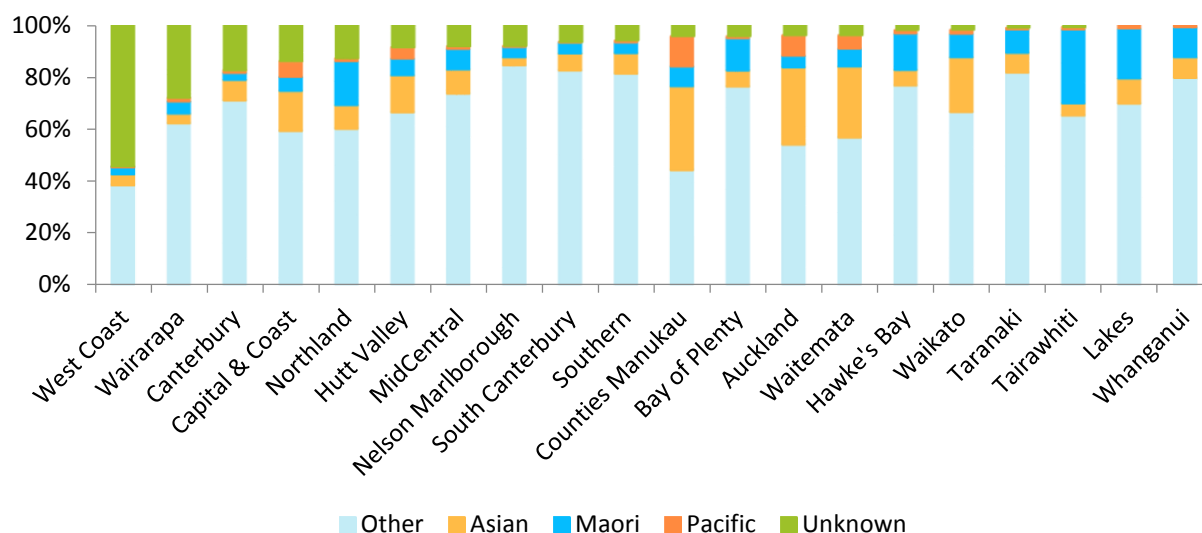**Figure 9: Proportion of reported ethnicities by DHB**

Table 8: Distribution of reported ethnicities by DHB

DHB	Other*	Asian	Māori	Pacific	Unknown	Total
West Coast	289	31	>18	**	404	749
Wairarapa	369	22	28	8	165	592
Canterbury	6,435	716	234	85	1,569	9,039
Capital & Coast	3,083	804	279	309	720	5,195
Northland	1,733	262	485	32	366	2,878
Hutt Valley	1,412	304	134	92	181	2,123
MidCentral	1,849	233	193	27	204	2,506
Nelson Marlborough	2,010	73	93	9	190	2,375
South Canterbury	629	50	>27	**	50	761
Southern	3,454	340	165	34	251	4,244
Counties Manukau	3,102	2,249	529	802	300	6,982
Bay of Plenty	2,304	185	372	23	129	3,013
Auckland	5,279	2,893	427	764	382	9,745
Waitemata	4,233	2,024	512	381	290	7,440
Hawke's Bay	2,083	166	376	34	53	2,712
Waikato	4,514	1,432	603	101	123	6,773
Taranaki	1,330	125	144	9	19	1,627
Tairawhiti	515	38	222	7	7	789
Lakes	964	134	263	19	0	1,380
Whanganui	793	78	113	9	0	993
Grand Total	**46,380**	**12,159**	**5,225**	**2,749**	**5,403**	**71,916**

* '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	Senior medical	Junior medical	Midwifery	All staff
Southern	11.8	10.3	9.9	9.8	10.6	2.0	10.4	10.3
Taranaki	11.7	11.0	9.5	10.7	8.1	1.4	8.3	10.3
West Coast	11.1	8.9	11.2	10.6	7.8	0.6	10.1	10.1
MidCentral	11.3	9.9	9.5	10.3	10.6	1.6	8.7	10.0
South Canterbury	10.5	9.2	9.4	11.6	9.3	0.8	7.7	9.7
Whanganui	9.8	10.0	10.8	10.0	9.5	1.0	9.2	9.6
Canterbury	10.7	8.5	9.7	9.7	11.4	2.1	8.6	9.5
Nelson Marlborough	10.3	7.7	8.8	9.9	10.5	0.9	7.9	9.1
Tairawhiti	10.8	7.7	7.9	7.8	8.4	0.8	5.9	8.8
Bay of Plenty	10.0	9.3	8.1	7.7	9.8	1.3	8.9	8.8
Lakes	9.7	9.1	9.6	9.0	8.3	1.2	6.4	8.8
Hawke's Bay	9.0	9.0	9.0	8.4	9.8	1.4	7.9	8.5
Waikato	9.2	9.1	8.2	7.7	10.5	1.9	6.8	8.4
Northland	8.8	9.3	8.7	6.2	8.4	1.2	7.6	8.2
Wairarapa	9.0	6.6	9.7	7.2	8.2	0.3	6.1	8.0
Auckland	7.8	8.8	8.1	8.9	10.8	0.7	7.6	8.0
Hutt Valley	9.1	8.0	7.8	8.6	9.0	0.6	7.2	8.0
Counties Manukau	7.3	8.1	6.7	7.5	9.7	0.6	6.7	7.2
Capital & Coast	7.3	7.3	6.8	9.2	10.0	1.1	6.4	7.1
Waitemata	6.6	6.9	7.6	6.2	8.9	0.6	6.9	6.6
Grand Total	**9.1**	**8.6**	**8.4**	**8.4**	**10.0**	**1.2**	**7.6**	**8.4**

ANALYSIS BY SICK LEAVE & ANNUAL LEAVE

SICK LEAVE BY DHB, OCCUPATION GROUP, AGE GROUP AND ETHNICITY BY SEX

The following radar chart shows the dispersion of sick leave by DHB by looking at the average annualized 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.

To read this graph, the red 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 West Coast shows that 50% of staff took 0 hours sick leave or less per FTE in the March quarter, and 75% of staff took 48.1 hours or less of sick leave per FTE. The data for Waitemata shows that 50% of staff took 40 hours or less sick leave per FTE, and that 75% of staff took 103.3 hours or less of sick leave per FTE.

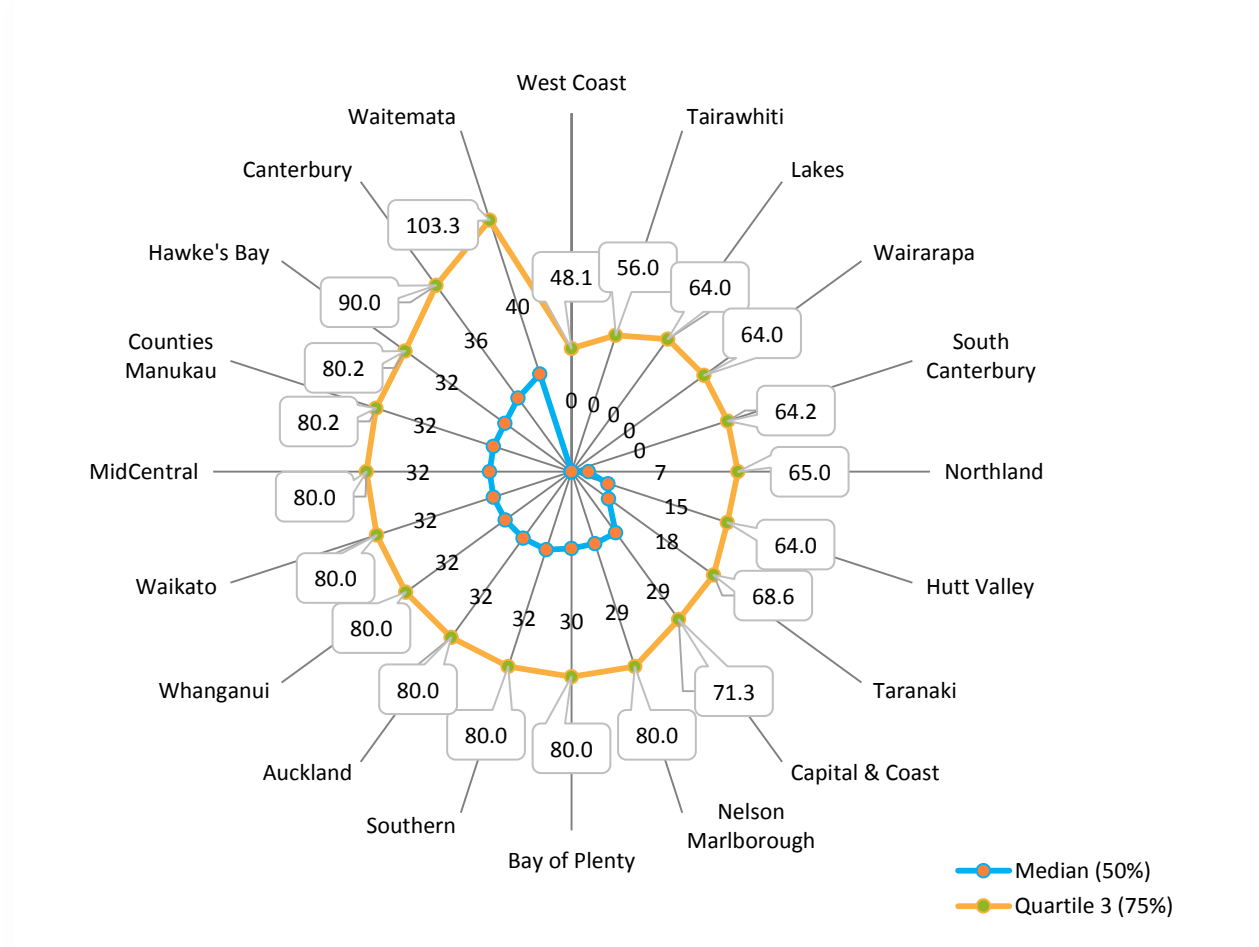**Figure 10: Average annualized sick leave hours per FTE by DHB**

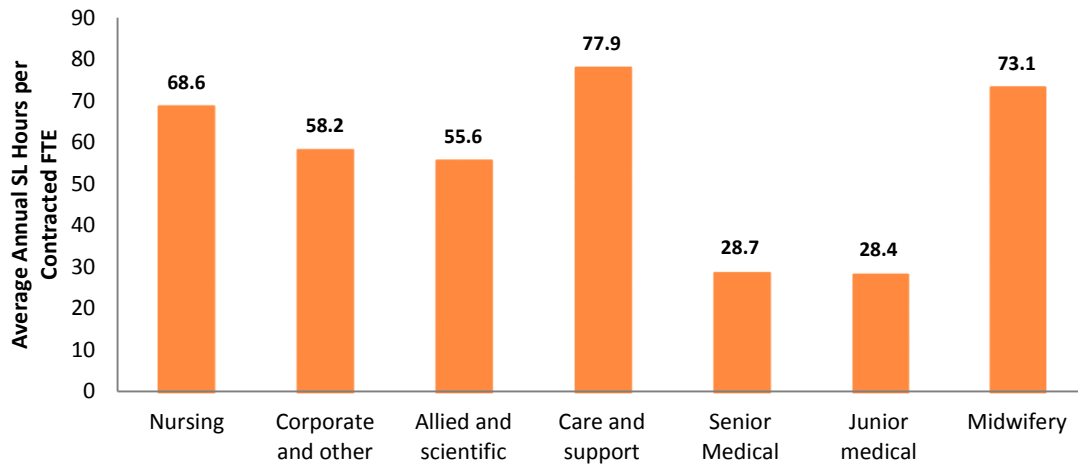**Figure 11: Average annual sick leave hours per FTE by occupational group**

Average Annual SL Hours per Contracted FTE

Occupational group	Value
Nursing	68.6
Corporate and other	58.2
Allied and scientific	55.6
Care and support	77.9
Senior Medical	28.7
Junior medical	28.4
Midwifery	73.1

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

Average Annual SL Hours per Contracted FTE

Age group	F	M
<25	57.7	49.6
25-34	64.1	45.6
35-44	66.6	45.4
45-54	59.6	46.6
55-64	63.4	53.1
>=65	75.6	61.2
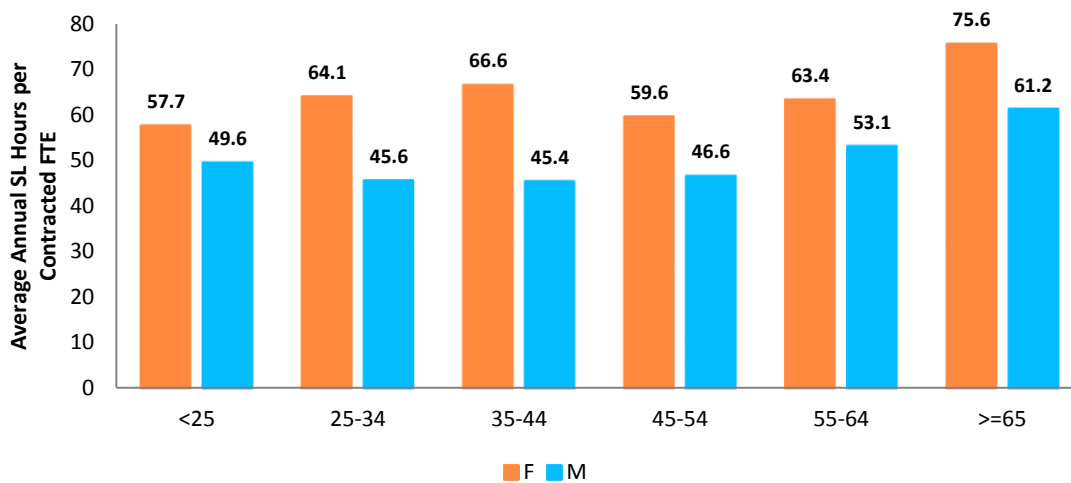
Figure 13: Average annual sick leave hours per FTE by ethnicity by sex

Average Annual SL Hours per Contracted FTE

Ethnicity	F	M
Other	60.6	42.7
Asian	66.2	52.2
Maori	72.0	67.7
Pacific	84.7	84.6

17
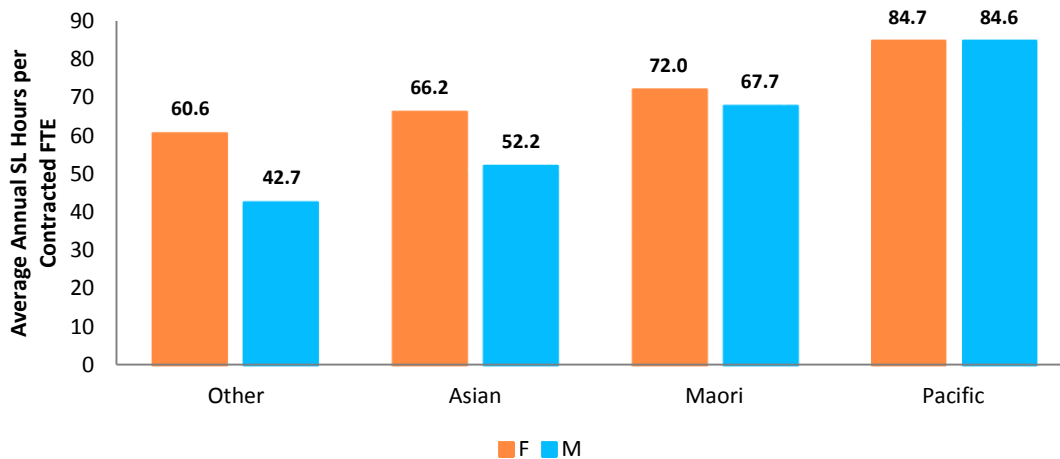
RATIO OF ANNUAL LEAVE BALANCE AND ANNUAL LEAVE ENTITLEMENT BY DHB, OCCUPATION GROUP AND ETHNICITY BY SEX

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 nine DHBs, on average their employees have more annual leave balance than annual leave entitlement.

The other two charts on page 19 are self-explanatory.

Figure 14: Ratio of annual leave balance to annual leave entitlement hours per FTE by DHB
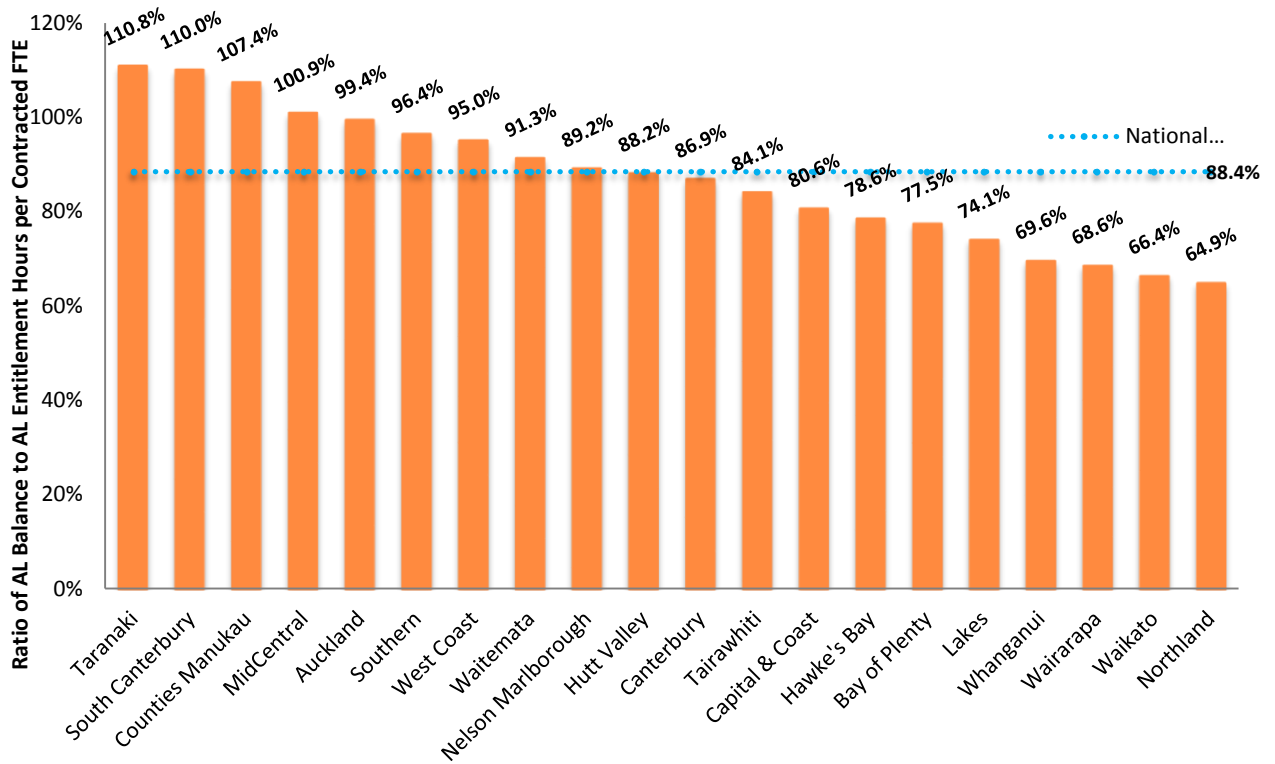
Figure 15: Ratio of annual leave balance to annual leave entitlement hours per FTE by occupational group
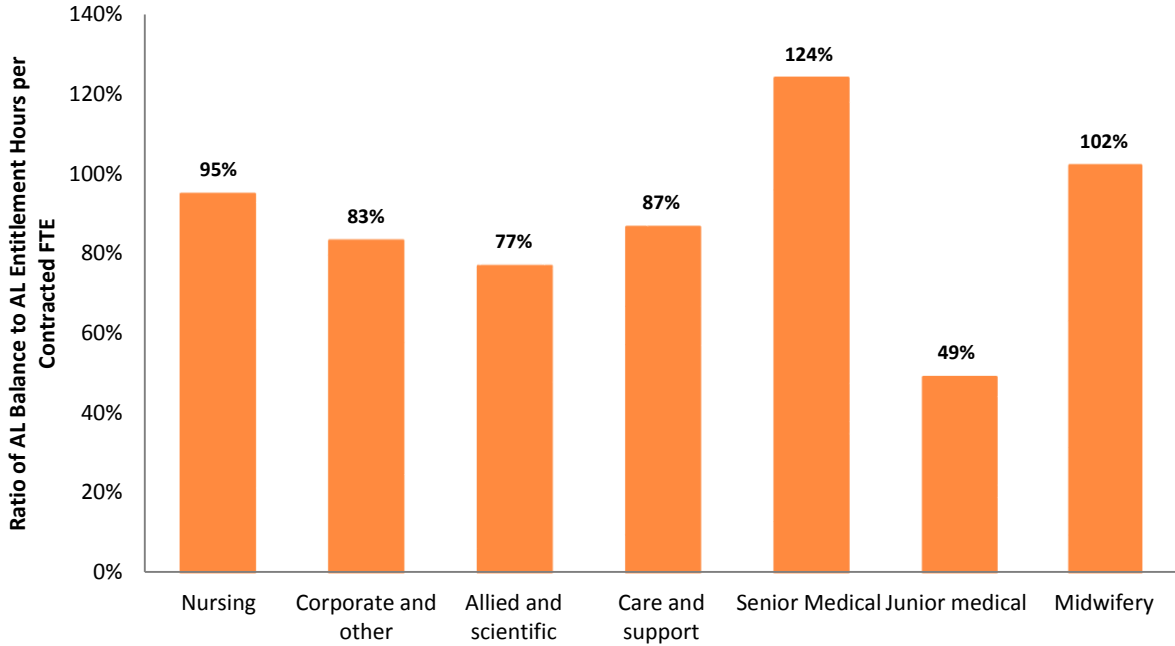
Figure 16: Ratio of annual leave balance to annual leave entitlement hours per FTE by ethnicity by sex
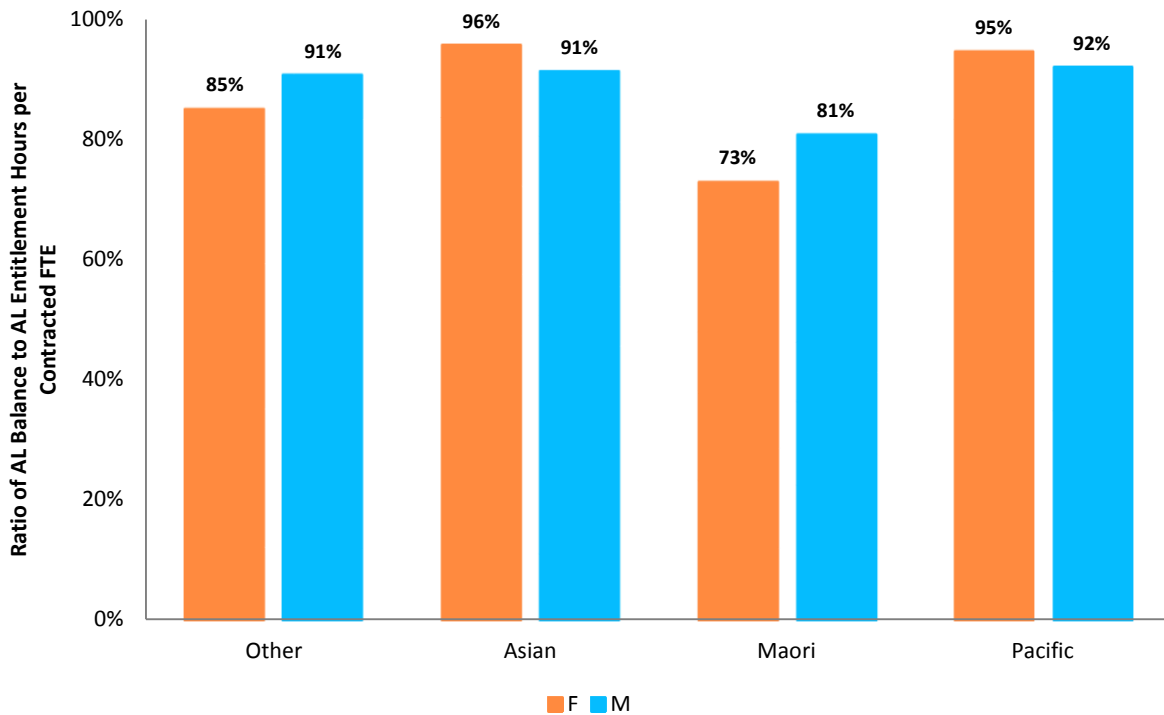
ANALYSIS BY POPULATION

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 green outline). The staggered dark green line is the distribution of all New Zealand employees for the March 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
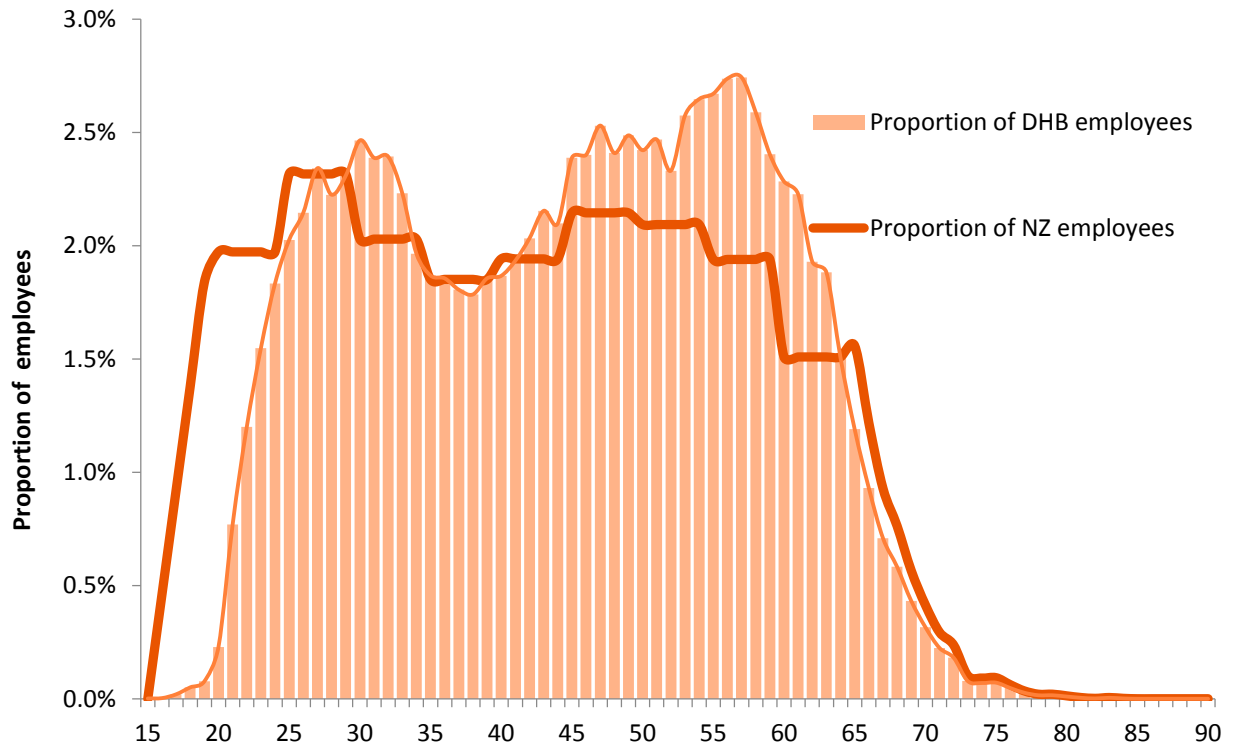
ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION

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 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 -23% to +26% - so comparisons between DHBs are possible. The data for 2013 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 South Canterbury 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.
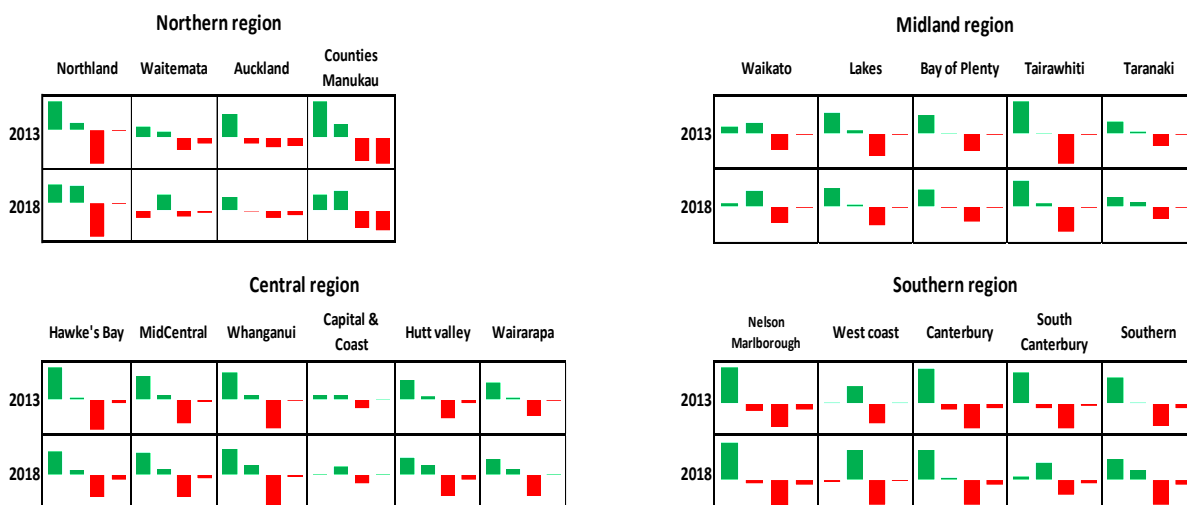
Note: The four bars are ordered as: Other, Asian, Māori and Pacific

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 2013 and 2018; the 'Other' ethnicities have reduced closer to zero (from nine down to five percentage points difference), whereas Māori have been 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. 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
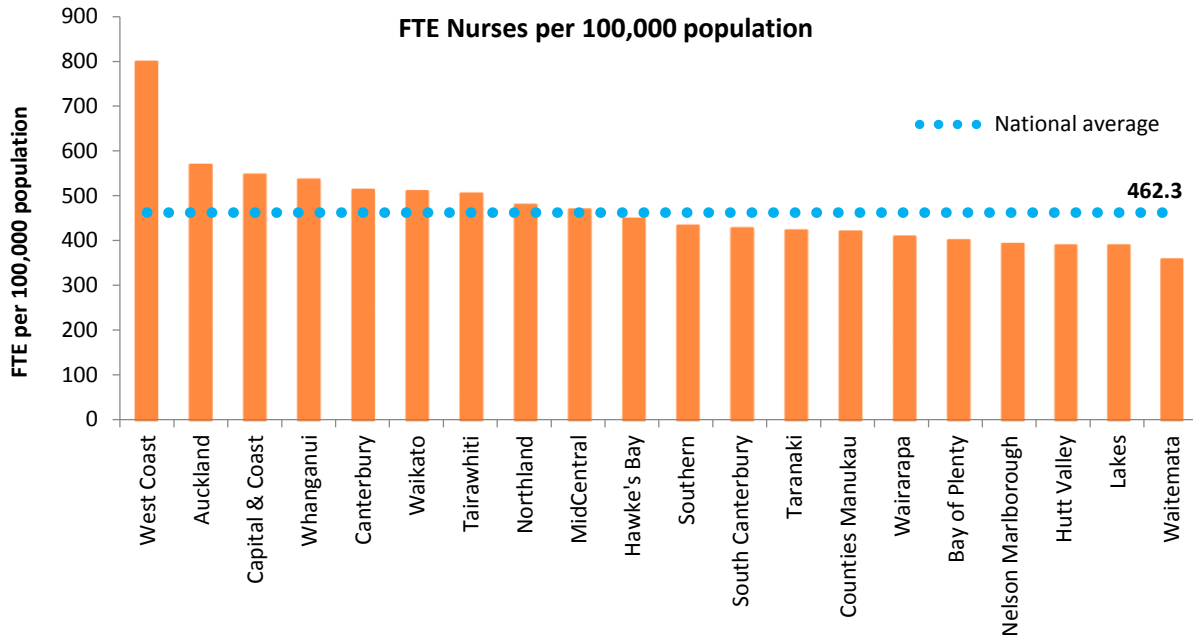
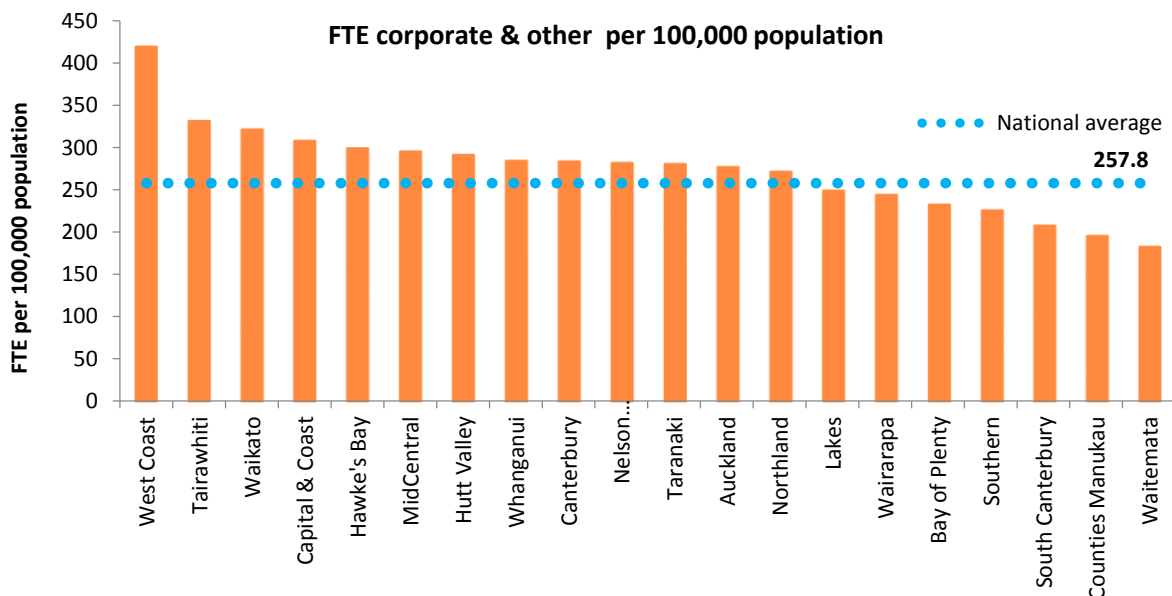**Figure 19: Population density of Corporate & Other by DHB**

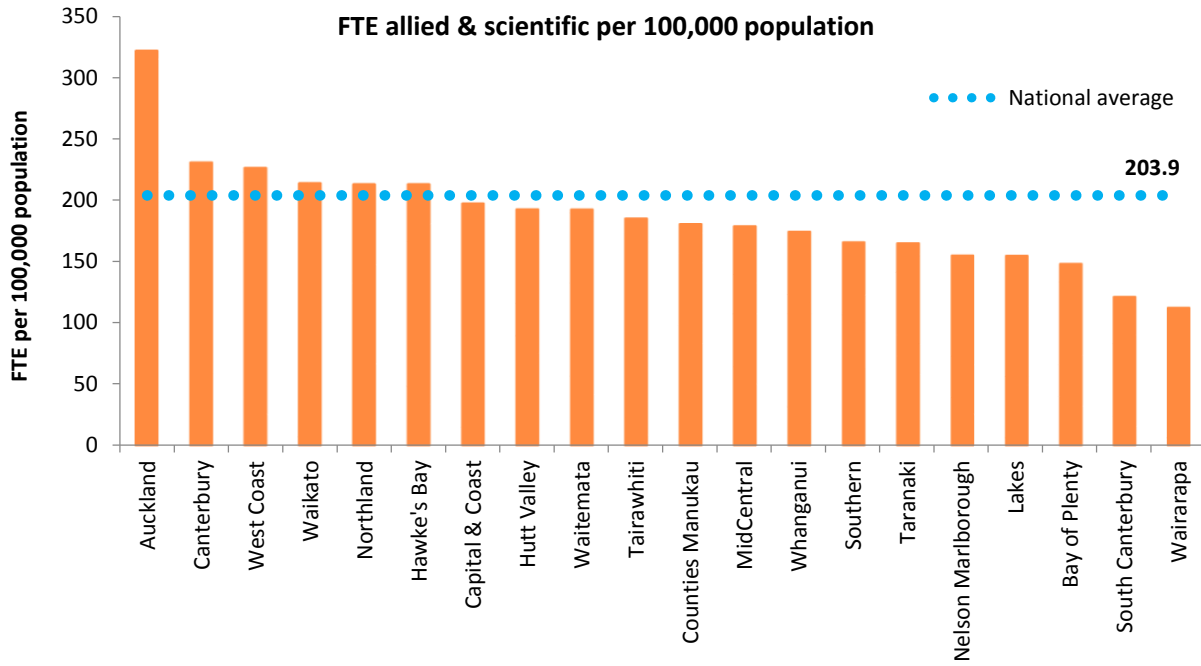**Figure 20: Population density of Allied & Scientific by DHB**

FTE allied & scientific per 100,000 population

203.9

Figure 21: Population density of Care & Support by DHB

FTE care & support per 100,000 population

126.8
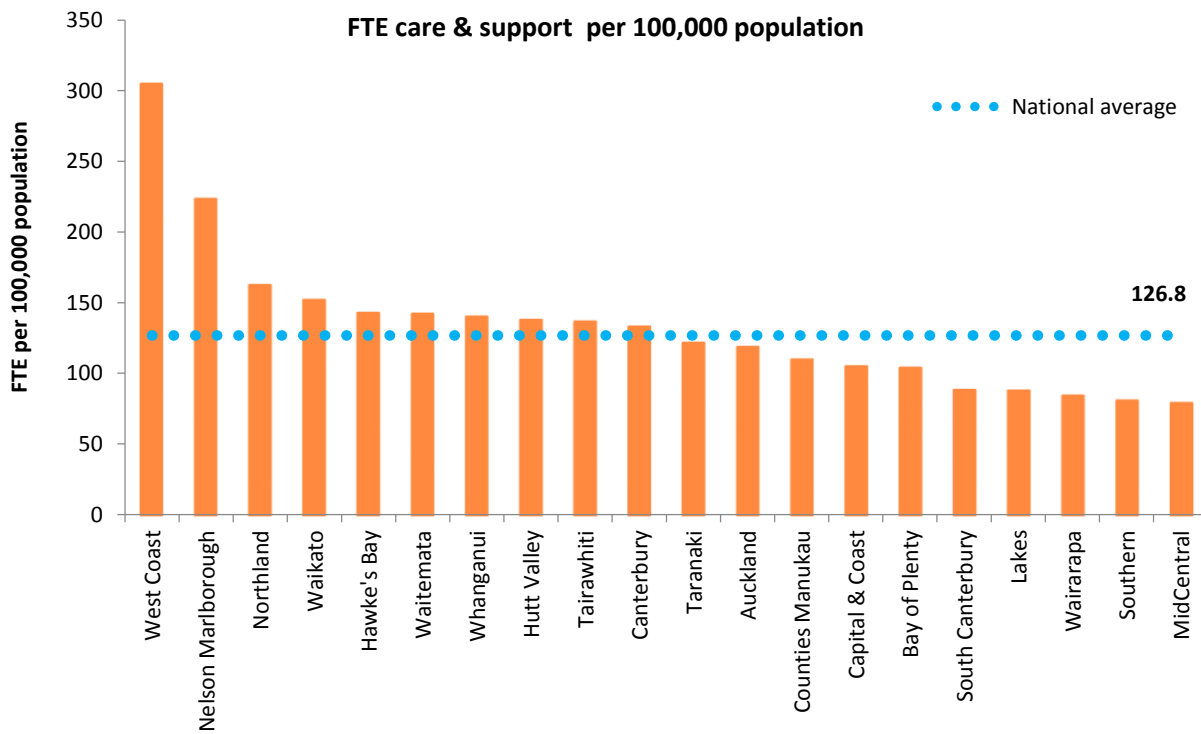
Figure 22: Population density of Senior Medical by DHB

FTE senior medical per 100,000 population

National average

93.2
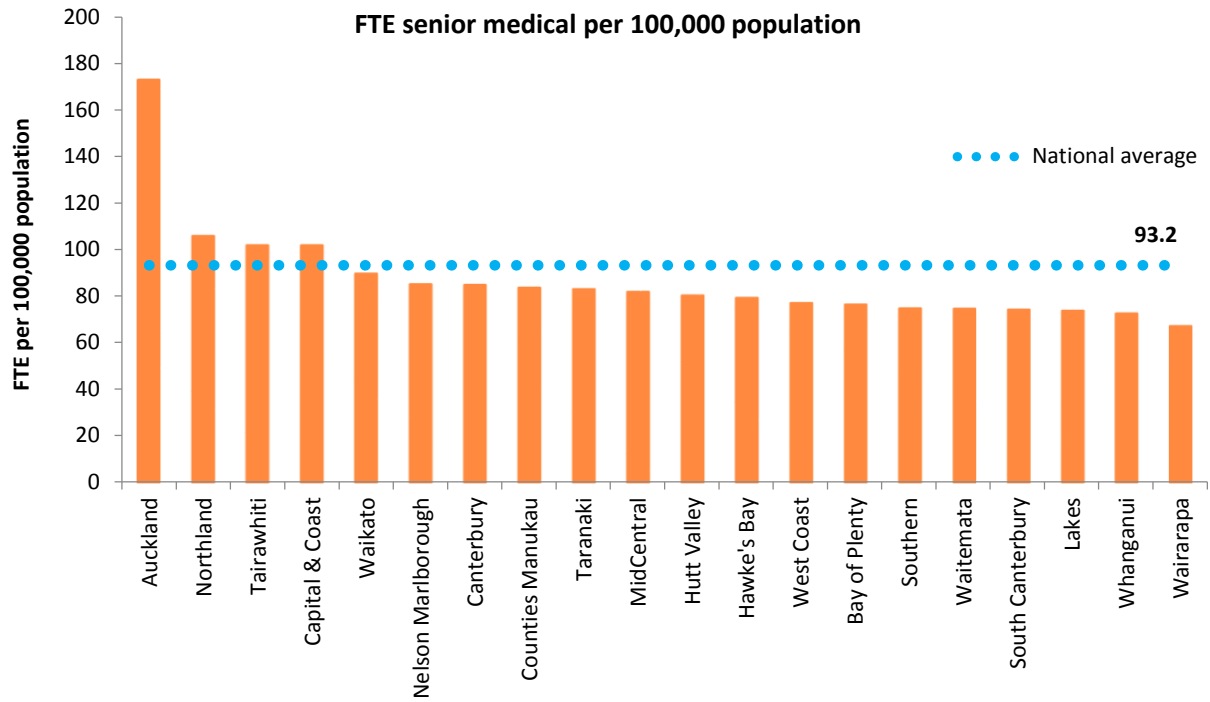
Figure 23: Population density of Junior Medical by DHB

FTE junior medical per 100,000 population

National average

88.4
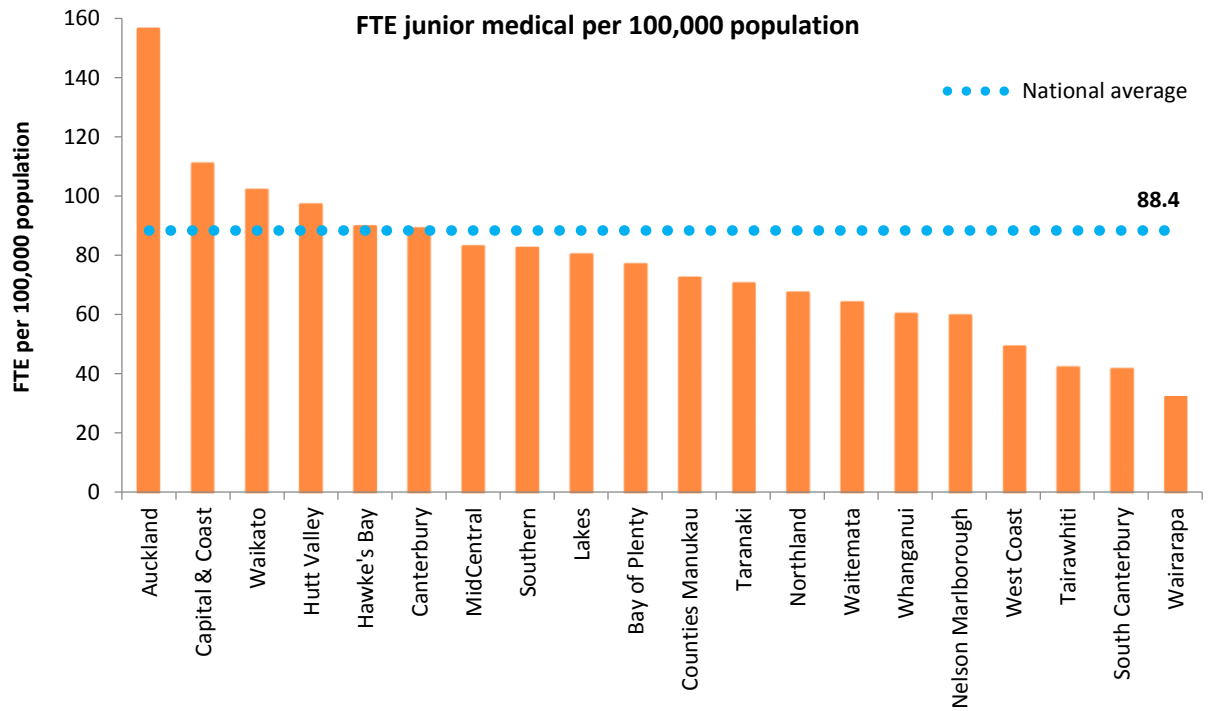
Figure 24: Population density of Midwives by DHB
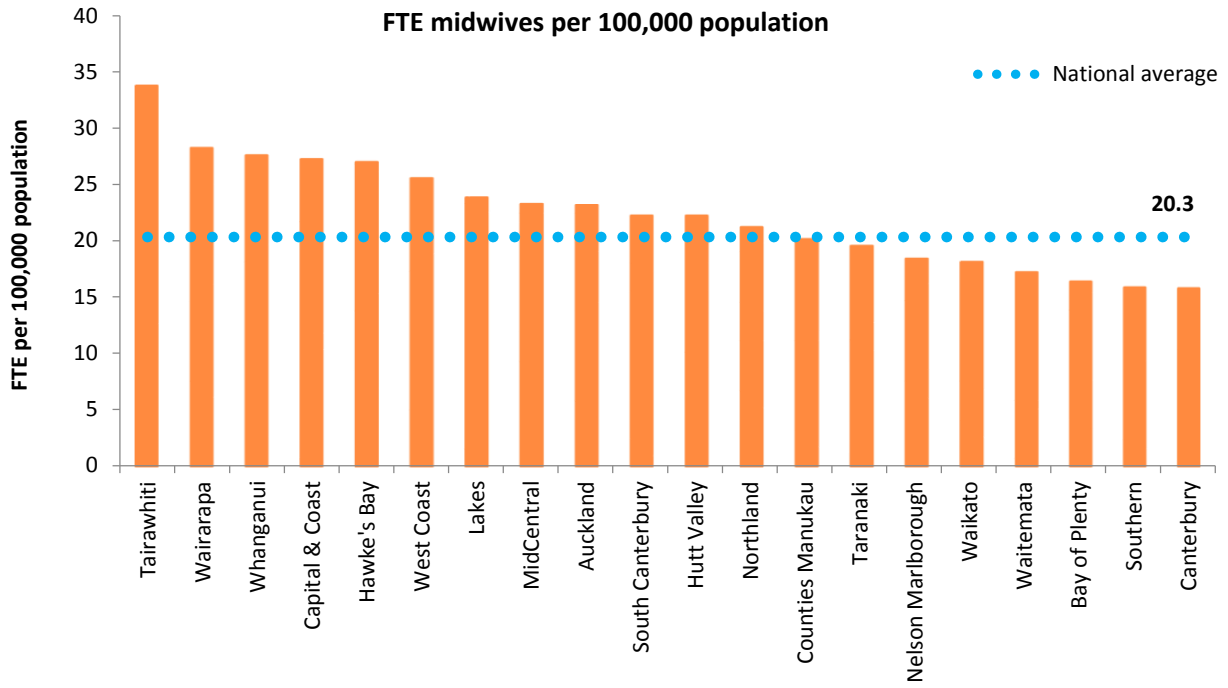

FTE midwives per 100,000 population

····· National average

20.3

Figure 25: Population density of all DHB staff by DHB

FTE all staff per 100,000 population

····· National average

1252.6