DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT

1 OCTOBER TO 31 DECEMBER 2016

HEALTH WORKFORCE INFORMATION

District Health Boards' Shared Services (DHBSS), through the Workforce Information team, 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 October 2016 to 31 December 2016 and is a snapshot in time at 31 December 2016. 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 October 2016 to December 2016 inclusive and is a snapshot taken by the DHBs on 31 December 2016.

- 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.

- 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@dhbsharedservices.health.nz

Data source: DHB Workforce Information, held by DHB Shared Services

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OVERVIEW

DHB WORKFORCE AT A GLANCE

For data to 31 December 2016, 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 69,093 **54,207 female** **14,886 male**	**57,829 FTE*** **44,222 FTE* females** **13,607 FTE* males**	**Largest occupation group:** **Nurses – 26,409** **Smallest occupation group:** **Midwives – 1,380**
DHB employee average age 45.8 years **45.9 years for females** **45.4 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 50.4 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 0.91**	**Longest Length of Service occupation group** **Senior medical (mean 10.0 years)** **Shortest Length of Service occupation group** **Junior medical (mean 1.1 years)**	**Employee reported ethnicities:** **Other** – 72%** **Asian – 17%** **Māori – 7%** **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
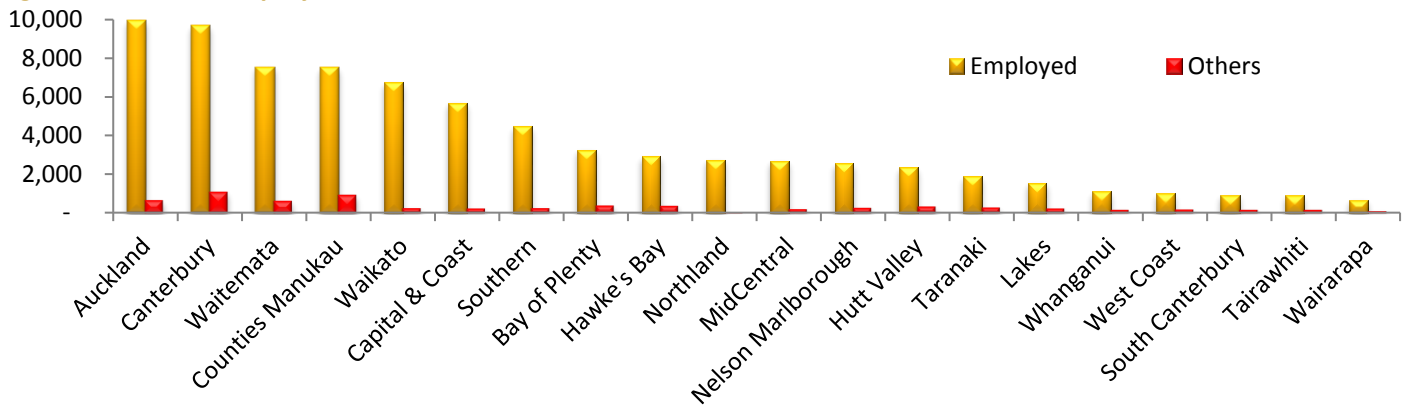
Table 1: Distribution of employment types

DHB	Employed	Others	Total	Proportion of DHB workforce
Auckland	9,293	659	9,952	13.1%
Canterbury	8,628	1071	9,699	12.8%
Waitemata	6,930	617	7,547	9.9%
Counties Manukau	6,608	918	7,526	9.9%
Waikato	6,474	248	6,722	8.8%
Capital & Coast	5,453	233	5,686	7.5%
Southern	4,216	257	4,473	5.9%
Bay of Plenty	2,858	382	3,240	4.3%
Hawke's Bay	2,559	371	2,930	3.9%
Northland	2,686	45	2,731	3.6%
MidCentral	2,479	203	2,682	3.5%
Nelson Marlborough	2,285	268	2,553	3.4%
Hutt Valley	2,007	336	2,343	3.1%
Taranaki	1,579	294	1,873	2.5%
Lakes	1,288	242	1,530	2.0%
Whanganui	922	178	1,100	1.4%
West Coast	788	195	983	1.3%
South Canterbury	748	166	914	1.2%
Tairawhiti	742	166	908	1.2%
Wairarapa	550	107	657	0.9%
Grand Total	**69,093**	**6,956**	**76,049**	**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.

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	3408	2862.2	0.84	1582	1379.6	0.87	1912	1635.5	0.86	629	566.2	0.90	990	803.0	0.81	610	595.3	0.98	162	118.4	0.73
Bay of Plenty	1164	893.7	0.77	587	519.0	0.88	400	339.0	0.85	282	235.7	0.84	204	169.3	0.83	169	167.5	0.99	52	37.1	0.71
Canterbury	3349	2741.5	0.82	1683	1480.7	0.88	1554	1265.8	0.81	857	679.0	0.79	553	461.4	0.83	501	491.4	0.98	131	86.4	0.66
Capital & Coast	2179	1666.4	0.76	1083	967.1	0.89	719	607.8	0.85	578	438.2	0.76	382	297.5	0.78	373	354.4	0.95	139	75.2	0.54
Counties Manukau	2482	2127.5	0.86	1312	1119.1	0.85	1088	955.3	0.88	663	583.0	0.88	510	424.1	0.83	399	390.8	0.98	154	114.5	0.74
Hawke's Bay	991	706.6	0.71	536	462.6	0.86	412	334.8	0.81	276	219.8	0.80	141	123.2	0.87	138	136.5	0.99	65	40.6	0.62
Hutt Valley	697	570.5	0.82	430	389.4	0.91	326	270.9	0.83	233	199.2	0.85	146	113.8	0.78	135	133.7	0.99	40	28.9	0.72
Lakes	506	397.2	0.79	283	255.3	0.90	174	149.2	0.86	129	108.2	0.84	85	74.9	0.88	79	77.8	0.98	32	23.6	0.74
MidCentral	1009	827.0	0.82	566	514.9	0.91	339	298.0	0.88	182	148.2	0.81	161	139.2	0.86	153	151.1	0.99	69	44.6	0.65
Nelson Marlborough	774	586.3	0.76	492	403.1	0.82	301	231.5	0.77	439	305.9	0.70	149	118.0	0.79	88	84.0	0.95	42	30.4	0.72
Northland	1064	794.2	0.75	541	438.0	0.81	405	329.0	0.81	323	234.6	0.73	180	175.5	0.97	110	108.2	0.98	63	38.0	0.60
South Canterbury	305	240.9	0.79	153	131.0	0.86	84	67.9	0.81	110	72.9	0.66	56	40.4	0.72	23	22.9	1.00	17	14.3	0.84
Southern	1761	1386.7	0.79	832	732.7	0.88	634	541.1	0.85	344	271.4	0.79	293	236.4	0.81	283	273.5	0.97	69	48.4	0.70
Tairawhiti	302	231.8	0.77	157	141.1	0.90	112	95.2	0.85	72	56.6	0.79	58	52.7	0.91	20	20.0	1.00	21	15.5	0.74
Taranaki	586	446.5	0.76	370	331.7	0.90	239	191.8	0.80	181	152.3	0.84	97	84.2	0.87	73	72.5	0.99	33	23.9	0.72
Waikato	2434	2014.2	0.83	1445	1281.4	0.89	1011	867.5	0.86	719	604.7	0.84	390	391.2	1.00	393	332.8	0.85	82	53.6	0.65
Wairarapa	257	177.4	0.69	124	96.5	0.78	61	46.5	0.76	43	32.5	0.76	34	27.8	0.82	15	14.4	0.96	16	9.2	0.57
Waitemata	2448	2084.6	0.85	1183	1049.8	0.89	1278	1083.0	0.85	1005	904.7	0.90	505	429.9	0.85	353	345.9	0.98	158	106.8	0.68
West Coast	311	263.2	0.85	175	144.2	0.82	87	75.5	0.87	158	107.0	0.68	33	28.5	0.86	11	10.5	0.95	13	8.6	0.66
Whanganui	382	309.6	0.81	200	176.1	0.88	131	106.5	0.81	100	83.2	0.83	49	44.8	0.91	38	37.6	0.99	22	17.8	0.81
Grand Total	26409	21327.9	0.81	13734	12013.5	0.87	11267	9491.9	0.84	7323	6003.5	0.82	5016	4235.9	0.84	3964	3820.7	0.96	1380	935.8	0.68

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
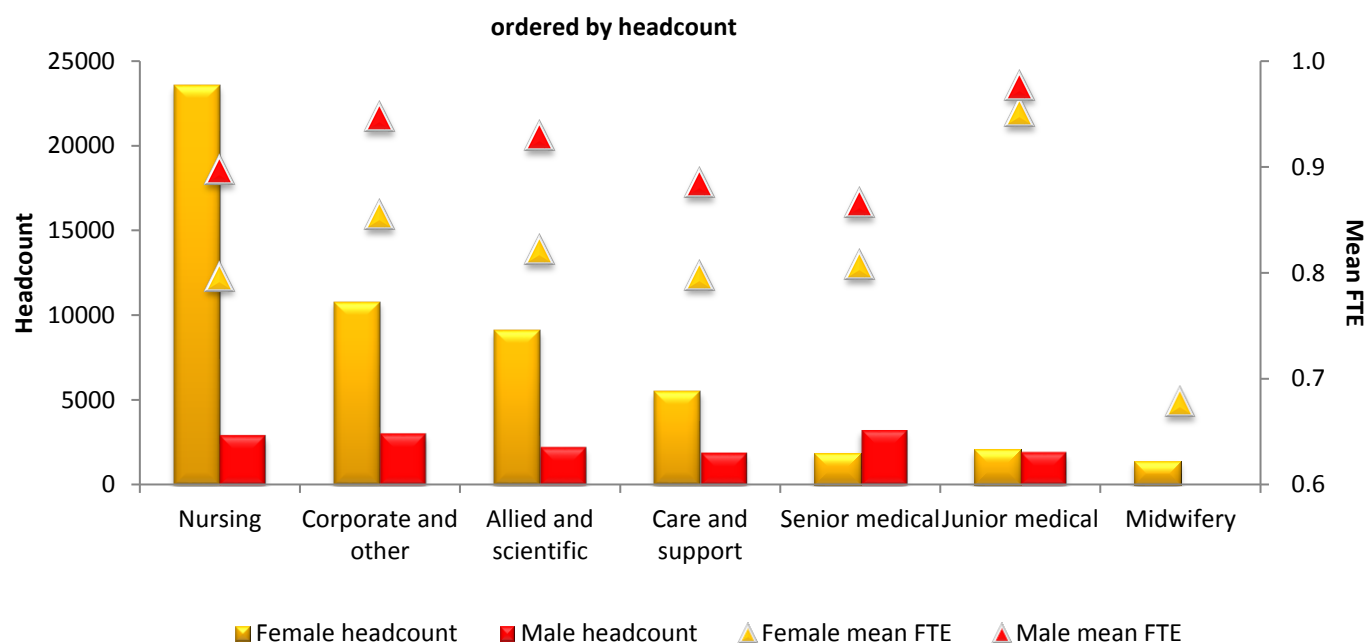
Table 3: Occupation group headcount and mean FTE by sex

	Female		Male		Total	
Occupation group	**Headcount**	**Mean FTE**	**Headcount**	**Mean FTE**	**Headcount**	**Mean FTE**
Nursing	23,552	0.80	2,857	0.90	26,409	0.81
Corporate and other	10,782	0.85	2,952	0.95	13,734	0.87
Allied and scientific	9,092	0.82	2,175	0.93	11,267	0.84
Care and support	5,473	0.80	1,850	0.89	7,323	0.82
Senior medical	1,864	0.81	3,152	0.87	5,016	0.84
Junior medical	>2,063	0.95	>1,893	0.98	3,964	0.96
Midwifery	>1,373	0.68	**	**	1,380	0.68
Grand Total	**54,207**	**0.82**	**14,886**	**0.91**	**69,093**	**0.84**

** Data suppressed due to low headcounts (less than 5)

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
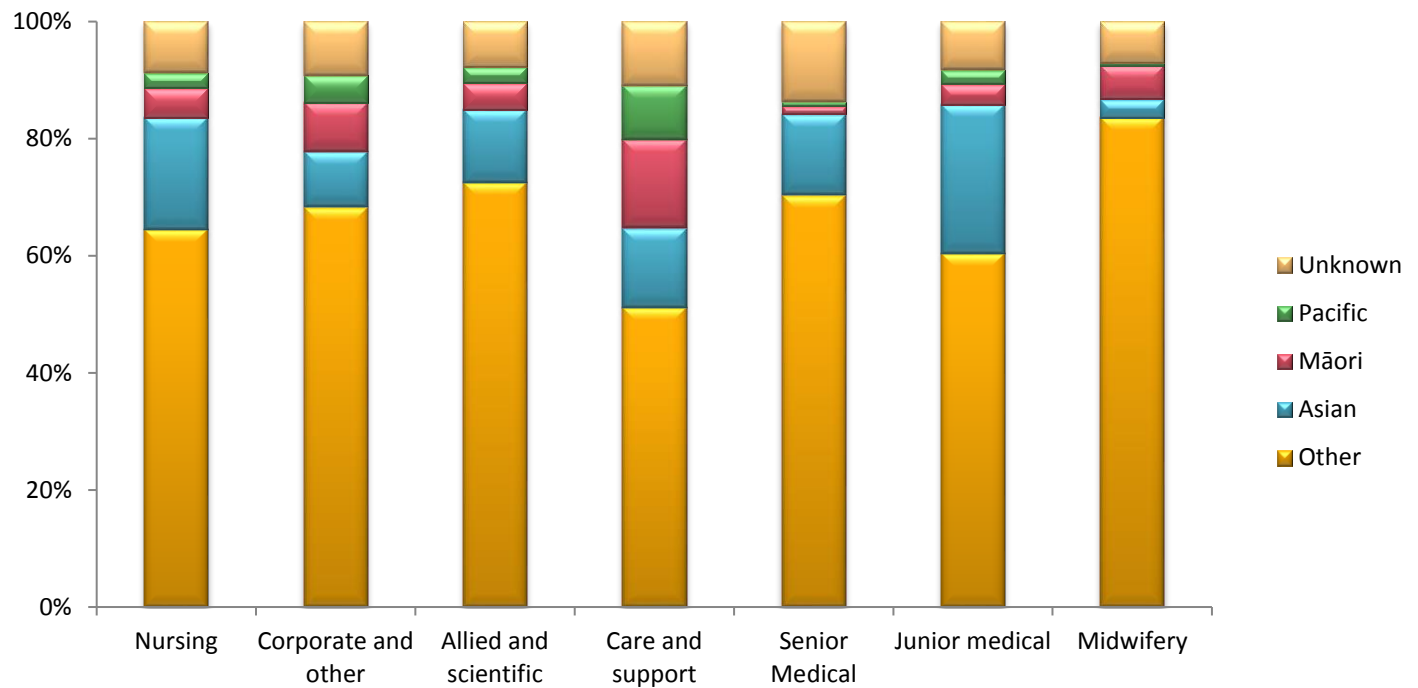
Table 4: Count and proportion of ethnicities by occupation group

Occupation group	Other*		Asian		Māori		Pacific		Unknown		Total
Nursing	17,030	64.5%	5,062	19.2%	1,327	5.0%	675	2.6%	2,315	8.8%	26,409
Corporate and other	9,386	68.3%	1,306	9.5%	1,140	8.3%	641	4.7%	1,261	9.2%	13,734
Allied and scientific	8,173	72.5%	1,398	12.4%	510	4.5%	306	2.7%	880	7.8%	11,267
Care and support	3,744	51.1%	996	13.6%	1,105	15.1%	679	9.3%	799	10.9%	7,323
Senior Medical	3,532	70.4%	690	13.8%	70	1.4%	36	0.7%	688	13.7%	5,016
Junior medical	2,394	60.4%	1,009	25.5%	140	3.5%	92	2.3%	329	8.3%	3,964
Midwifery	1,154	83.6%	43	3.1%	80	5.8%	7	0.5%	96	7.0%	1,380
Grand Total	45,413	65.7%	10,504	15.2%	4,372	6.3%	2,436	3.5%	6,368	9.2%	69,093

* '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 62,725 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 December 2016.

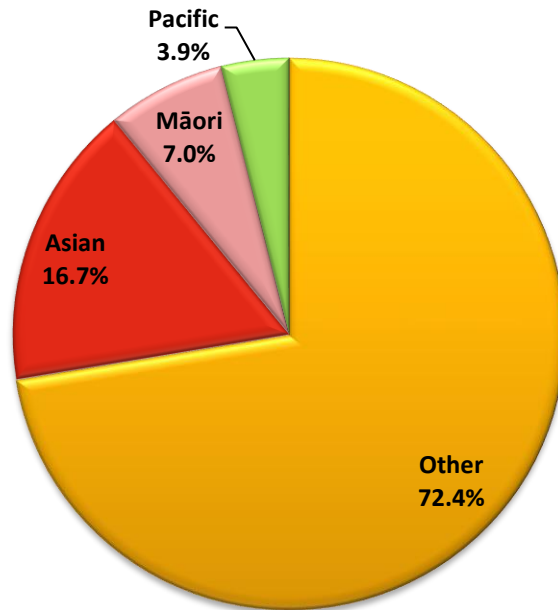**Figure 4: Proportion of identifiable ethnicities for all DHB employees**

Pacific
3.9%

Māori
7.0%

Asian
16.7%

Other
72.4%

Figure 5: Proportion of identifiable ethnicities for projected population data at 31 December 2016

Pacific
6.0%

Māori
14%

Asian
16%

Other
64.0%
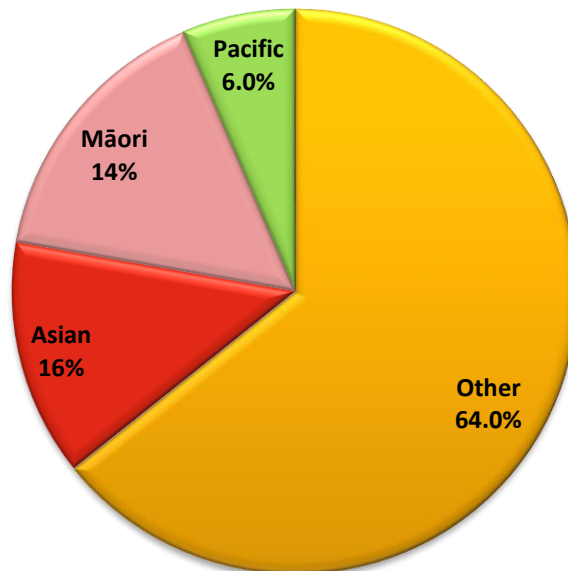
AGES AND LENGTH OF SERVICE

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.

Female mean age   Male mean age   Female mean length of service   Male mean length of service
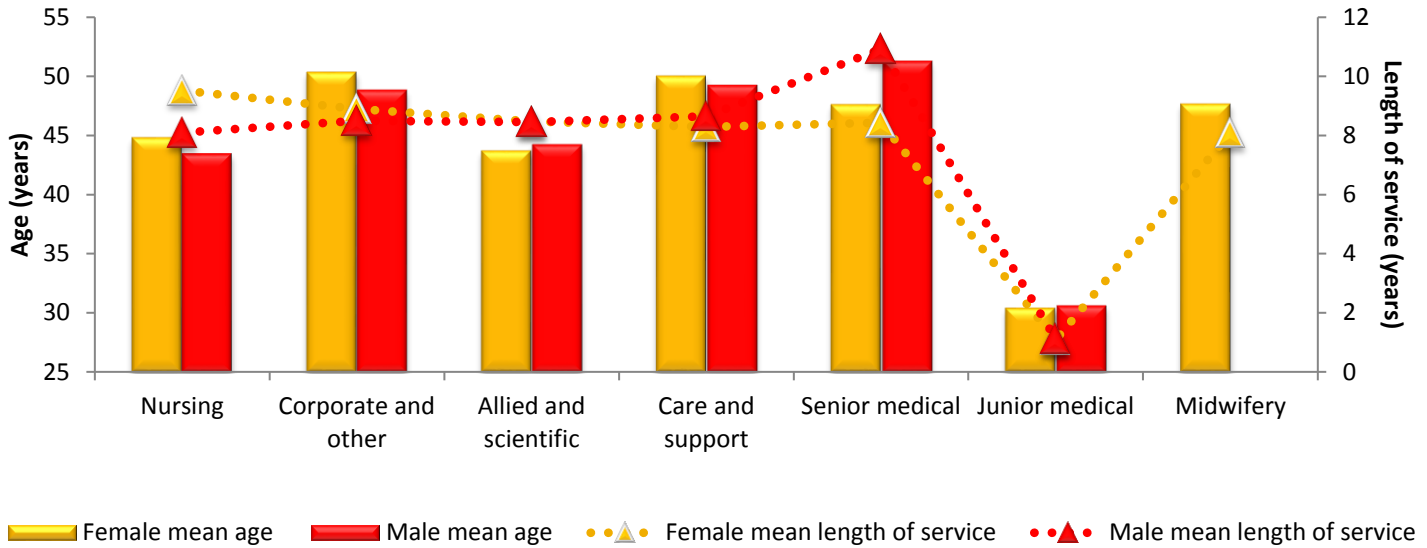
The following table gives the actual figures behind the chart above.

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

Occupation group	Female		Male		Total	
	Mean length of service	Mean age	Mean length of service	Mean age	Mean length of service	Mean age
Nursing	9.5	44.8	8.1	43.5	9.4	44.7
Corporate and other	8.9	50.4	8.5	48.8	8.8	50.0
Allied and scientific	8.5	43.7	8.5	44.2	8.5	43.8
Care and support	8.3	50.0	8.7	49.2	8.4	49.8
Senior medical	8.4	47.6	10.9	51.3	10.0	49.9
Junior medical	1.1	30.5	1.1	30.7	1.1	30.6
Midwifery	8.1	47.7	**	**	8.1	47.7
Grand Total	8.7	45.9	8.0	45.4	8.6	45.8

** 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 FTEs by sex for each DHB.

Figure 7: Headcount and mean FTE by sex and DHB
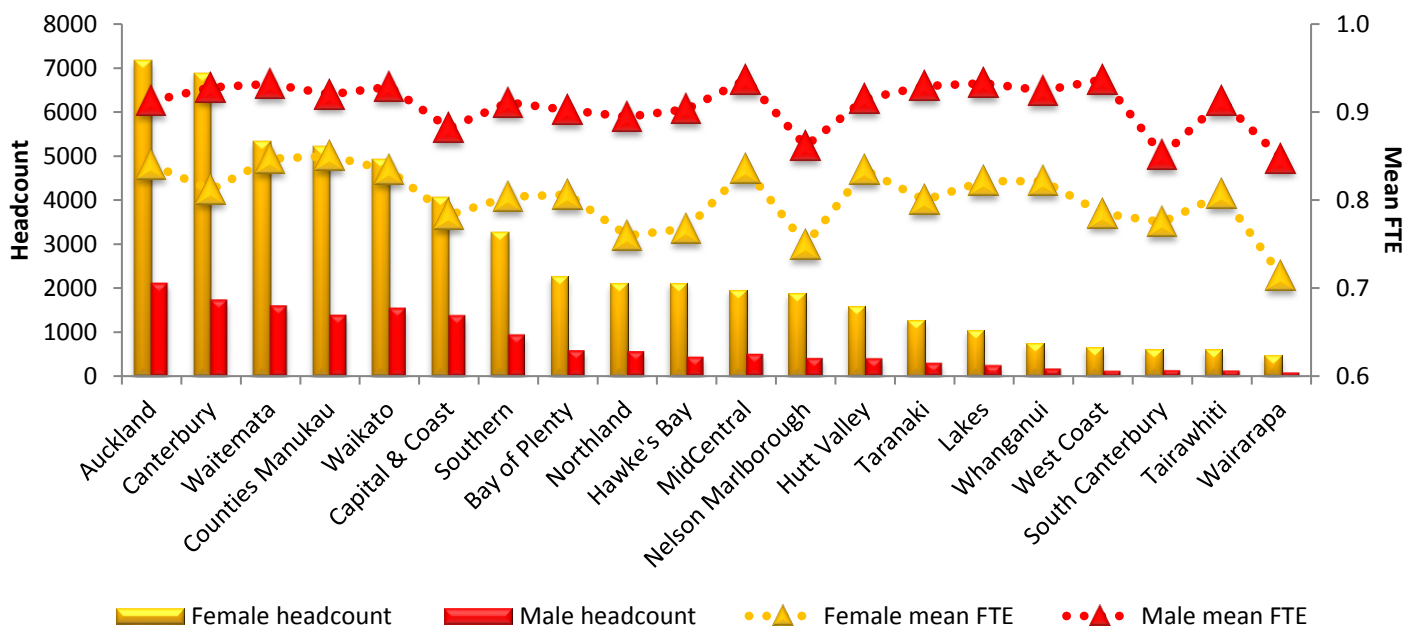
Table 6: Headcount and mean FTE by sex and DHB

		Auckland	Canterbury	Waitemata	Counties Manukau	Waikato	Capital & Coast	Southern	Bay of Plenty	Northland	Hawke's Bay	MidCentral	Nelson Marlborough	Hutt Valley	Taranaki	Lakes	Whanganui	West Coast	South Canterbury	Tairawhiti	Wairarapa
Female	Head count	7183	6892	5329	5218	4922	4068	3271	2265	2115	2117	1965	1871	1600	1272	1034	744	662	610	606	463
	Mean FTE	0.84	0.81	0.85	0.85	0.83	0.78	0.80	0.81	0.76	0.77	0.84	0.75	0.83	0.80	0.82	0.82	0.78	0.78	0.81	0.71
Male	Head count	2110	1736	1601	1390	1552	1385	945	593	571	442	514	414	407	307	254	178	126	138	136	87
	Mean FTE	0.91	0.93	0.93	0.92	0.93	0.88	0.91	0.90	0.89	0.90	0.94	0.86	0.91	0.93	0.93	0.92	0.94	0.85	0.91	0.85
Total	Head count	9293	8628	6930	6608	6474	5453	4216	2858	2686	2559	2479	2285	2007	1579	1288	922	788	748	742	550
	Mean FTE	0.86	0.84	0.87	0.86	0.86	0.81	0.83	0.83	0.79	0.79	0.86	0.77	0.85	0.83	0.84	0.84	0.81	0.79	0.83	0.74

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.

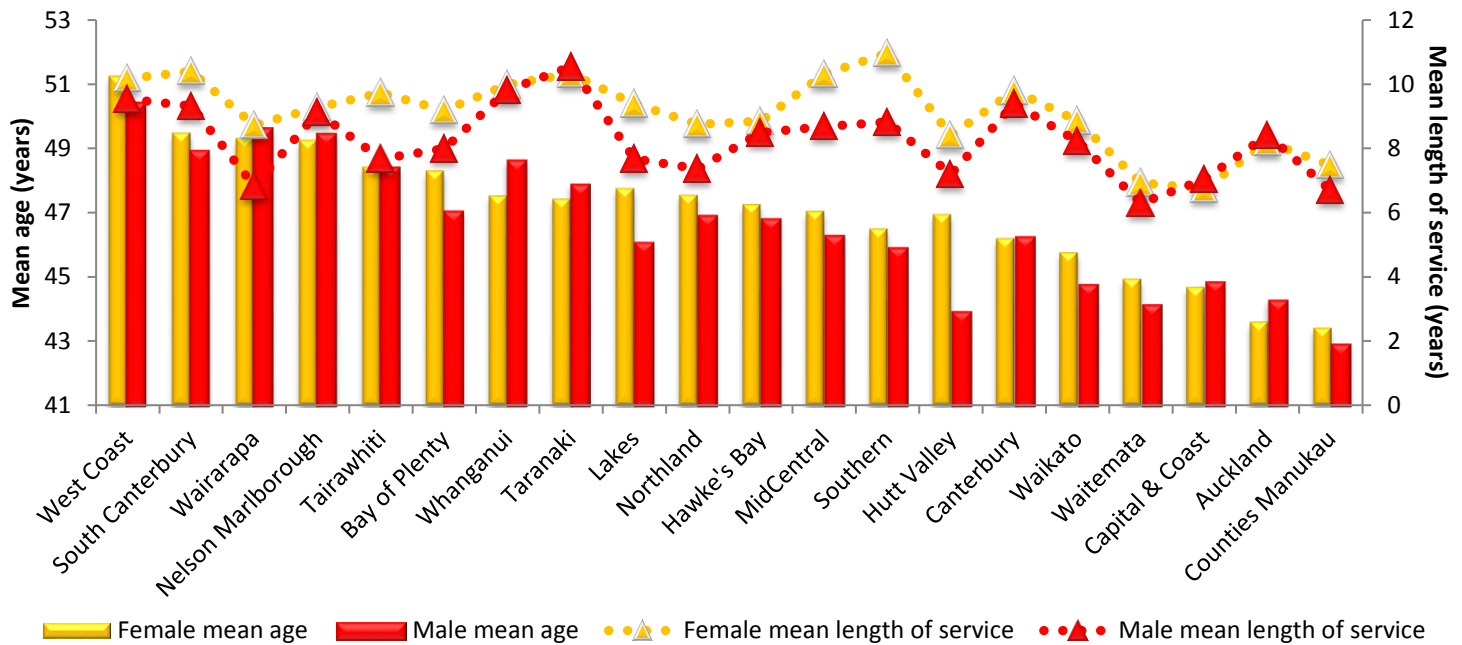**Figure 8: Mean ages and mean length of service by DHB and sex**

Female mean age ▬ Male mean age • ▲ • Female mean length of service • ▲ • Male mean length of service

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	10.2	51.2	9.5	50.4	10.1	51.1
South Canterbury	10.4	49.5	9.3	48.9	10.2	49.4
Wairarapa	8.7	49.3	6.8	49.6	8.4	49.4
Nelson Marlborough	9.3	49.2	9.1	49.4	9.3	49.3
Tairawhiti	9.7	48.4	7.7	48.4	9.4	48.4
Bay of Plenty	9.2	48.3	8.0	47.0	8.9	48.0
Whanganui	10.0	47.5	9.8	48.6	10.0	47.7
Taranaki	10.3	47.4	10.6	47.9	10.4	47.5
Lakes	9.4	47.7	7.7	46.1	9.1	47.4
Northland	8.7	47.5	7.4	46.9	8.5	47.4
Hawke's Bay	8.9	47.3	8.5	46.8	8.8	47.2
MidCentral	10.3	47.0	8.7	46.3	10.0	46.9
Southern	11.0	46.5	8.8	45.9	10.5	46.4
Hutt Valley	8.4	46.9	7.2	43.9	8.2	46.3
Canterbury	9.8	46.2	9.4	46.2	9.7	46.2
Waikato	8.9	45.7	8.2	44.8	8.7	45.5
Waitemata	6.9	44.9	6.3	44.1	6.8	44.7
Capital & Coast	6.7	44.7	7.0	44.8	6.8	44.7
Auckland	8.2	43.6	8.4	44.3	8.2	43.8
Counties Manukau	7.5	43.4	6.7	42.9	7.3	43.3
Grand Total	**8.7**	**45.9**	**8.0**	**45.4**	**8.6**	**45.8**

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.
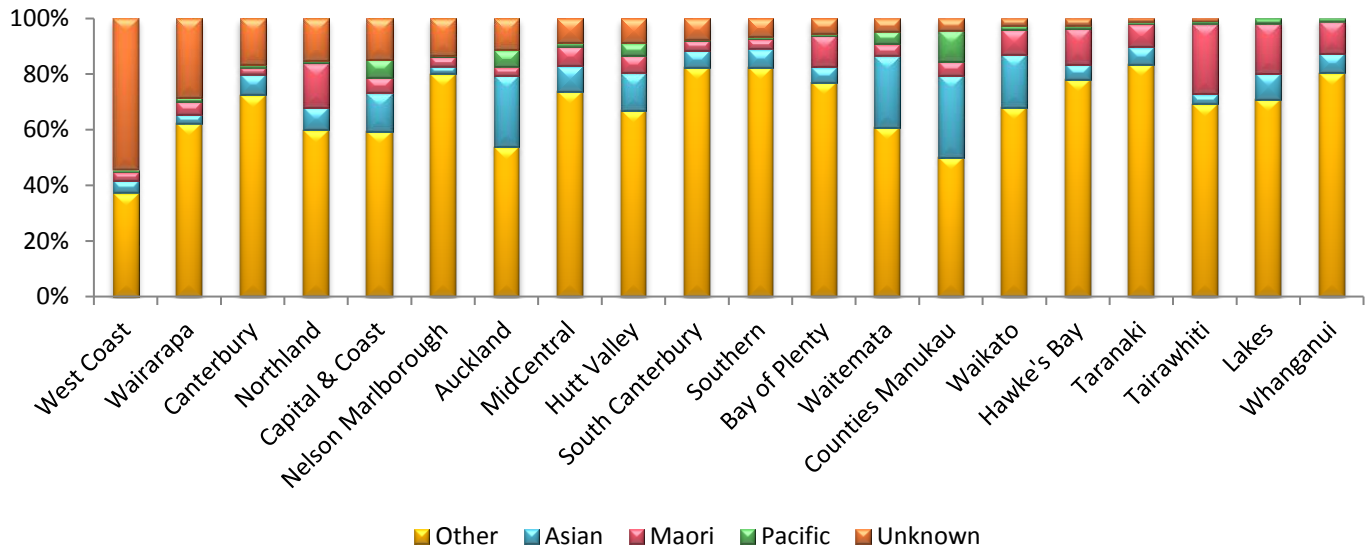
Figure 9: Proportion of reported ethnicities by DHB

Table 8: Distribution of reported ethnicities by DHB

DHB	Other*	Asian	Māori	Pacific	Unknown	Total
West Coast	294	34	>21	**	430	788
Wairarapa	342	18	26	8	156	550
Canterbury	6,253	628	217	79	1,451	8,628
Northland	1,609	216	431	22	408	2,686
Capital & Coast	3,237	755	298	360	803	5,453
Nelson Marlborough	1,830	62	80	8	305	2,285
Auckland	4,990	2,385	299	568	1,051	9,293
MidCentral	1,830	226	176	27	220	2,479
Hutt Valley	1,345	270	126	88	178	2,007
South Canterbury	616	46	>24	**	56	748
Southern	3,473	279	153	28	283	4,216
Bay of Plenty	2,196	162	322	21	157	2,858
Waitemata	4,218	1,781	292	324	315	6,930
Counties Manukau	3,298	1,951	342	731	286	6,608
Waikato	4,400	1,237	575	86	176	6,474
Hawke's Bay	1,996	142	326	29	66	2,559
Taranaki	1,318	100	131	10	20	1,579
Tairawhiti	514	27	187	7	7	742
Lakes	913	120	232	23	0	1,288
Whanganui	741	65	106	10	0	922
Grand Total	**45,413**	**10,504**	**4,372**	**2,436**	**6,368**	**69,093**

* '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	12.3	10.6	9.8	9.7	10.3	1.8	10.0	10.5
Taranaki	11.9	10.7	9.9	10.4	8.7	1.1	7.1	10.4
South Canterbury	11.4	9.9	10.9	9.4	9.6	0.8	7.8	10.2
West Coast	11.5	8.4	10.6	10.2	6.7	0.6	9.2	10.1
MidCentral	11.3	9.8	9.5	10.4	11.0	1.2	9.0	10.0
Whanganui	10.1	10.4	11.2	10.7	10.1	0.7	9.1	10.0
Canterbury	10.9	9.2	9.7	9.7	11.3	2.0	10.6	9.7
Tairawhiti	11.2	9.4	7.5	9.2	7.7	0.5	5.6	9.4
Nelson Marlborough	10.8	8.3	8.4	9.5	10.6	0.8	8.4	9.3
Lakes	10.2	9.3	10.0	8.5	8.5	0.8	8.0	9.1
Bay of Plenty	10.1	9.6	8.3	7.7	9.6	1.0	9.6	8.9
Hawke's Bay	9.3	9.5	8.9	8.7	10.1	1.2	8.8	8.8
Waikato	9.6	9.1	8.5	8.0	10.7	1.9	6.8	8.7
Northland	9.2	9.3	8.9	6.5	8.6	1.2	8.6	8.5
Wairarapa	9.0	7.9	11.2	5.6	8.1	0.3	9.1	8.4
Auckland	8.4	9.0	8.2	9.2	10.7	0.7	7.9	8.2
Hutt Valley	9.2	8.3	7.9	8.8	9.4	0.5	8.5	8.2
Counties Manukau	7.8	7.8	6.9	7.8	9.5	0.4	6.9	7.3
Capital & Coast	7.2	7.0	6.5	7.5	9.7	1.0	6.4	6.8
Waitemata	6.8	7.1	7.7	6.2	8.7	0.5	7.4	6.8
Grand Total	9.4	8.8	8.5	8.4	10.0	1.1	8.1	8.6

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 annual 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 Capital & Coast shows that the majority of staff took no sick leave in the December quarter, and 75% of staff took 68 hours or less sick leave per FTE. The data for Waikato shows that the majority of staff took 46 hours or less sick leave per FTE, and that 75% of staff took 100 hours or less of sick leave per FTE.

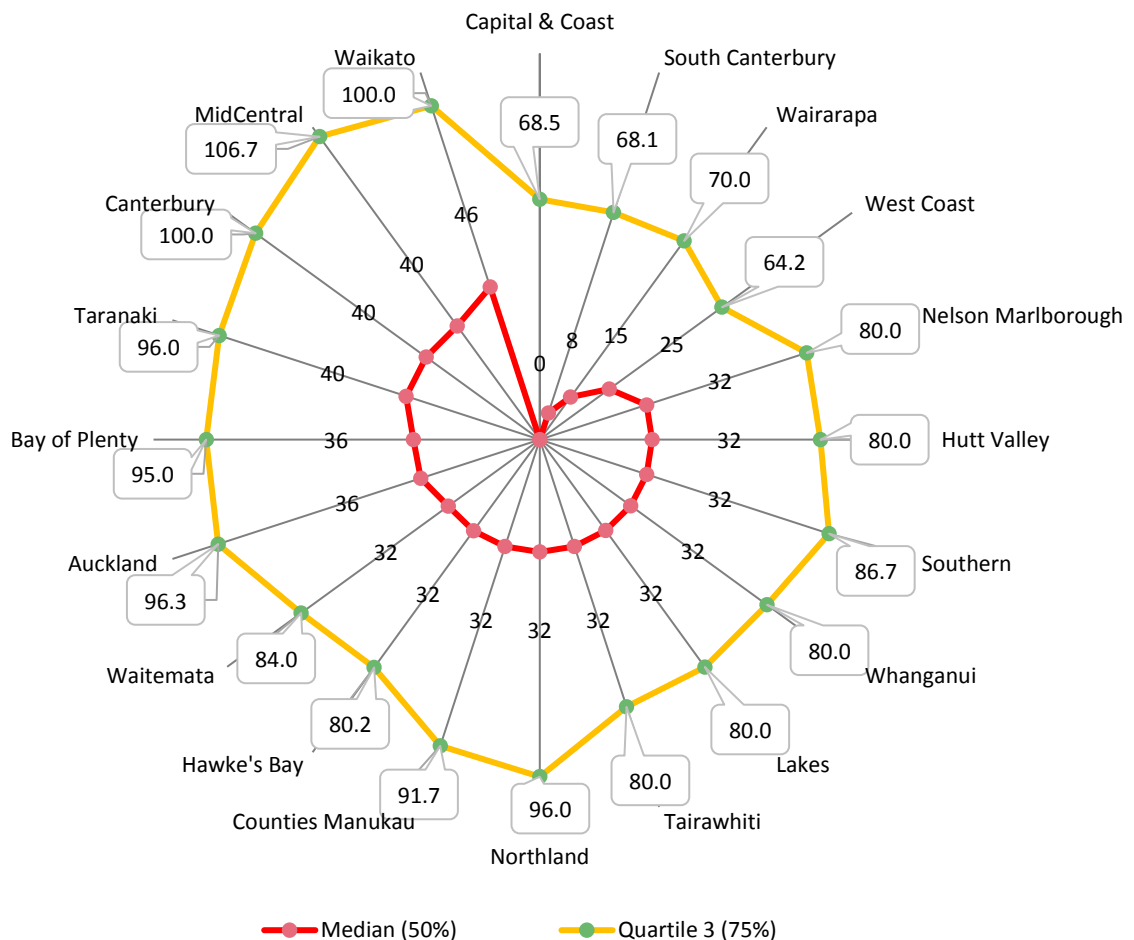**Figure 10: Average annual sick leave hours per FTE by DHB**

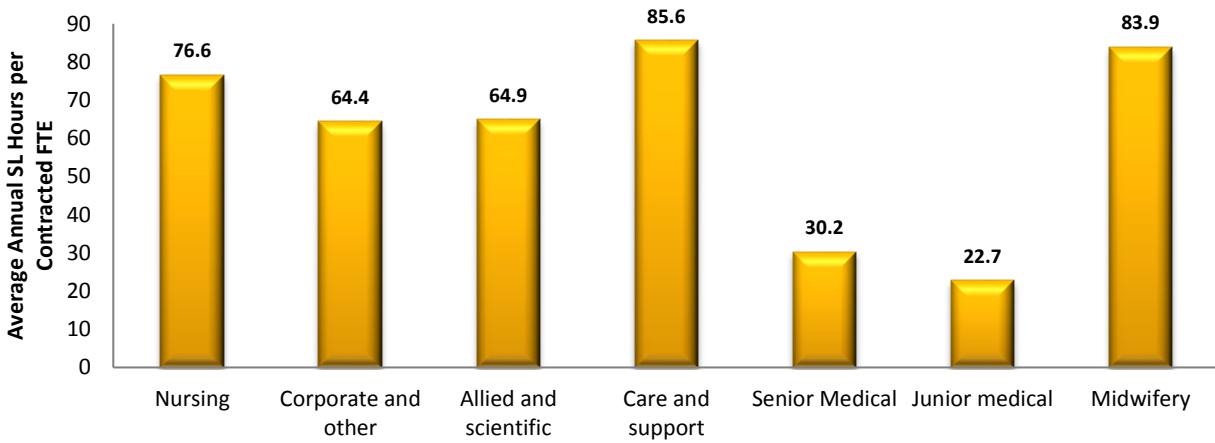**Figure 11: Average annual sick leave hours per FTE by occupational group**

Chart: Average Annual SL Hours per Contracted FTE (y-axis 0–90) by occupational group:
- Nursing: 76.6
- Corporate and other: 64.4
- Allied and scientific: 64.9
- Care and support: 85.6
- Senior Medical: 30.2
- Junior medical: 22.7
- Midwifery: 83.9

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

Chart: Average Annual SL Hours per Contracted FTE (y-axis 0–100) by age group, F and M:
- <25: F 62.3, M 43.8
- 25-34: F 65.9, M 46.8
- 35-44: F 72.3, M 50.1
- 45-54: F 69.6, M 51.4
- 55-64: F 74.2, M 58.8
- >=65: F 87.3, M 60.0

Legend: F, M
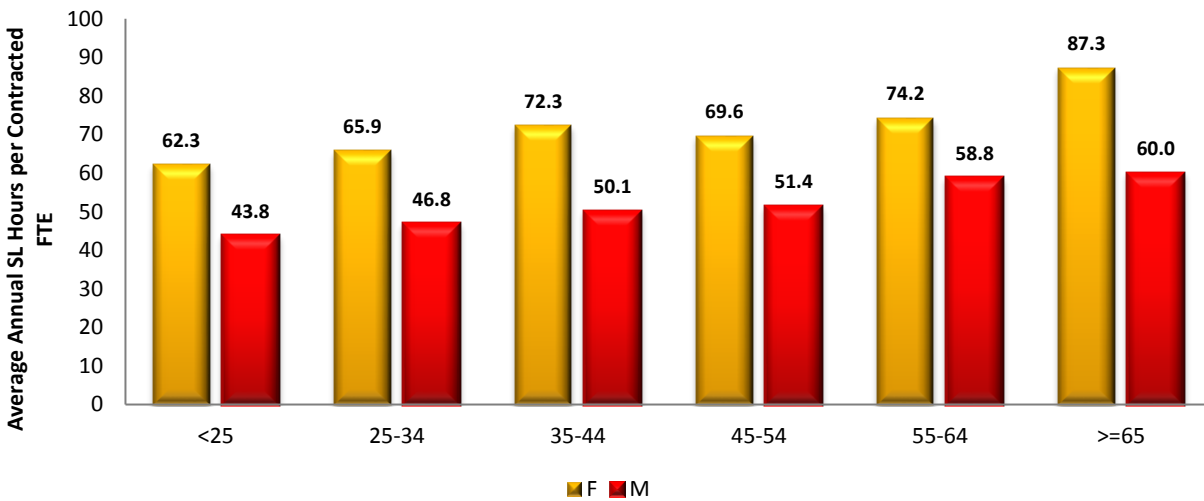
Figure 13: Average annual sick leave hours per FTE by ethnicity by sex
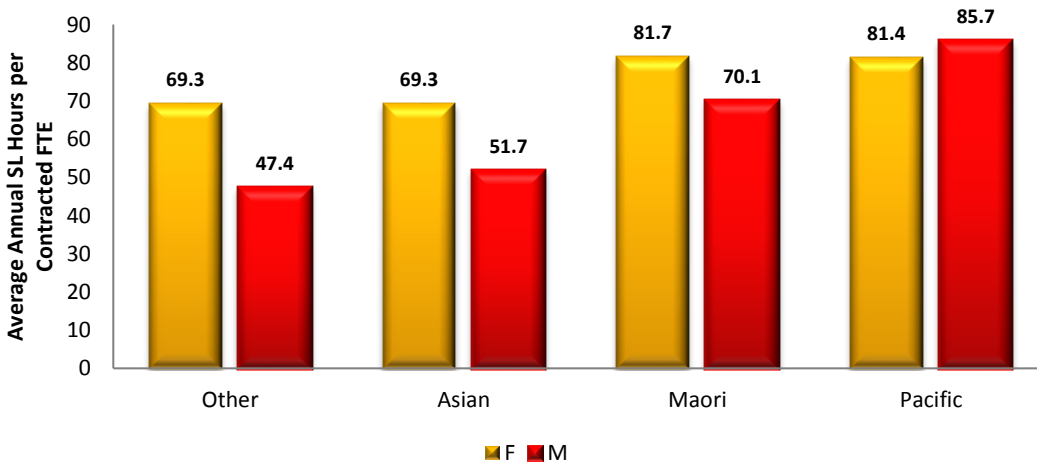
Chart: Average Annual SL Hours per Contracted FTE (y-axis 0–90) by ethnicity, F and M:
- Other: F 69.3, M 47.4
- Asian: F 69.3, M 51.7
- Maori: F 81.7, M 70.1
- Pacific: F 81.4, M 85.7

Legend: F, M

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

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

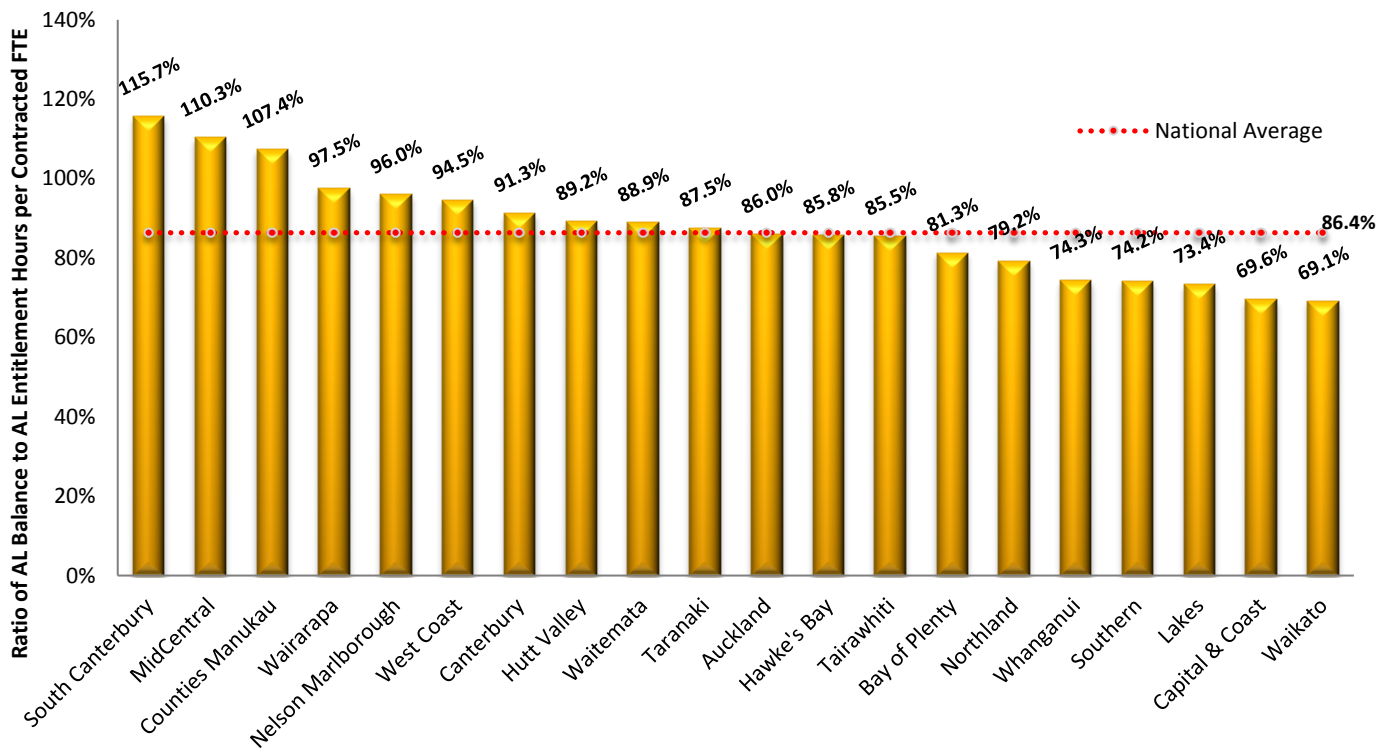**Figure 14: Ratio of annual leave balance to annual leave entitlement hours per FTE by DHB**

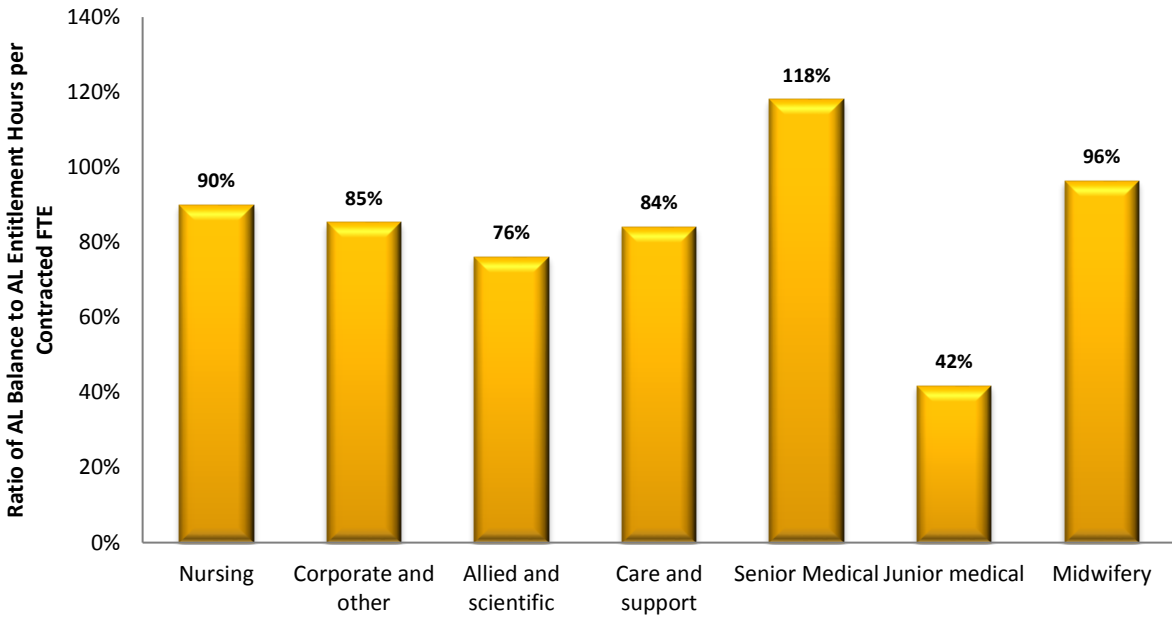**Figure 15: Ratio of annual leave balance to annual leave entitlement hours per FTE by occupational group**
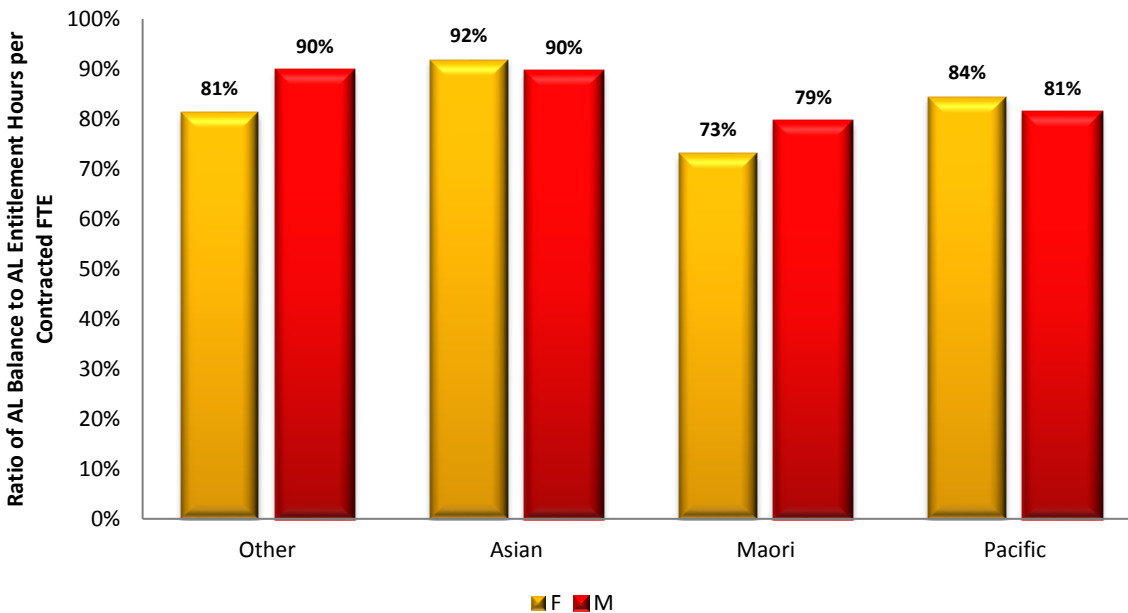

Figure 16: Ratio of annual leave balance to annual leave entitlement hours per FTE by ethnicity by sex

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 December 2016 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
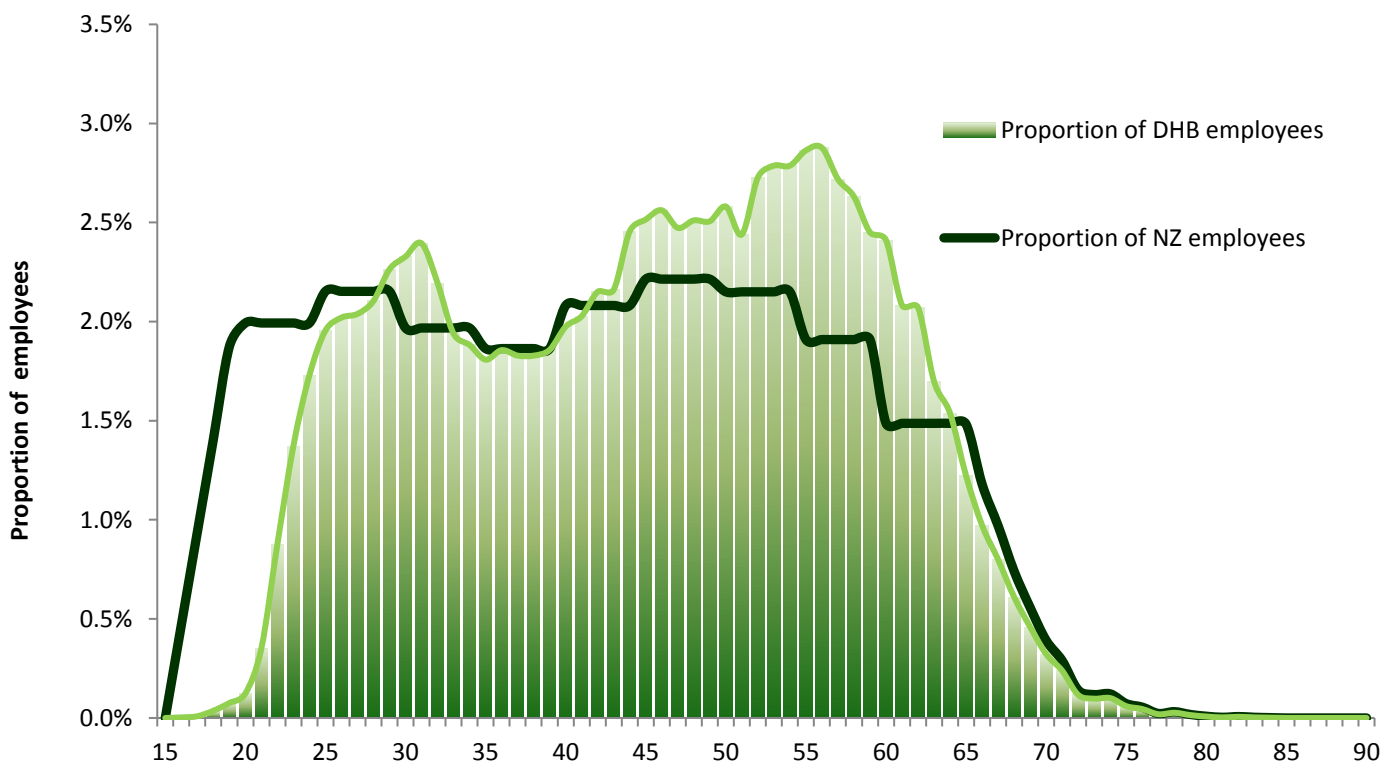
## ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION

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 sparklines the numbers are not written against the axes), which range from -23% to +26% - so comparisons between DHBs are possible. The data for 2011 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 Tairawhiti, will tend to show greater deviations between the DHB workforce ethnicities and the resident population.
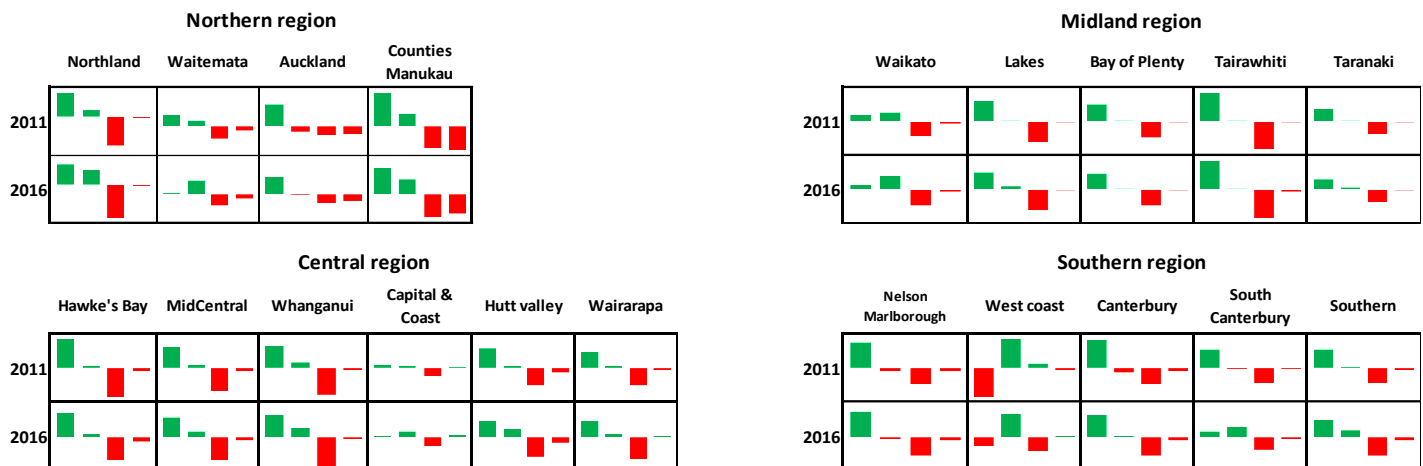
Note: The four bars are ordered as: Other, Asian, Māori and Pacific

For some DHBs the ethnic distribution of their staff closely mirrors that of the resident population, such as Capital & Coast, Taranaki and South Canterbury. Overall, the distributions have changed only slightly between 2011 and 2016; the 'Other' ethnicities have reduced closer to zero (from nine down to seven percentage points difference), whereas Māori have a slightly increased under-representation (from negative eight to negative nine percentage points difference).

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

FTE Nurses per 100,000 population

National average — 452.3
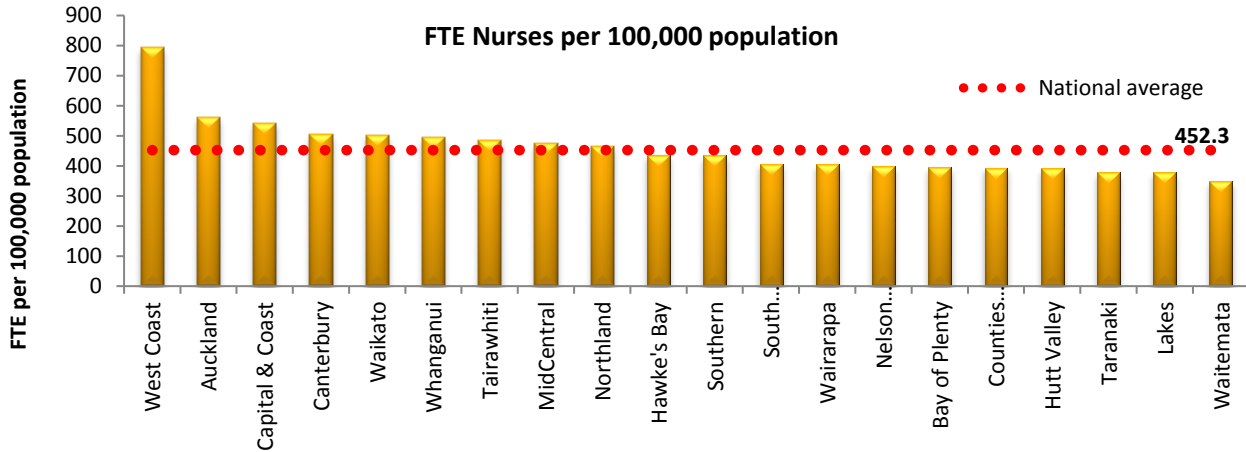
Figure 19: Population density of Corporate & Other by DHB

FTE corporate & other per 100,000 population

National average — 254.8
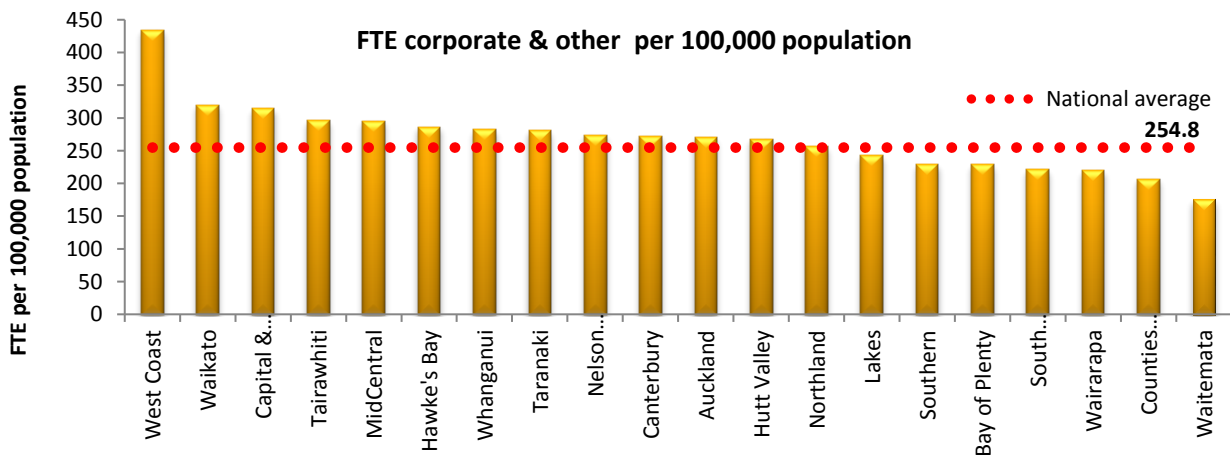
Figure 20: Population density of Allied & Scientific by DHB

FTE allied & scientific per 100,000 population

National average — 201.3

22
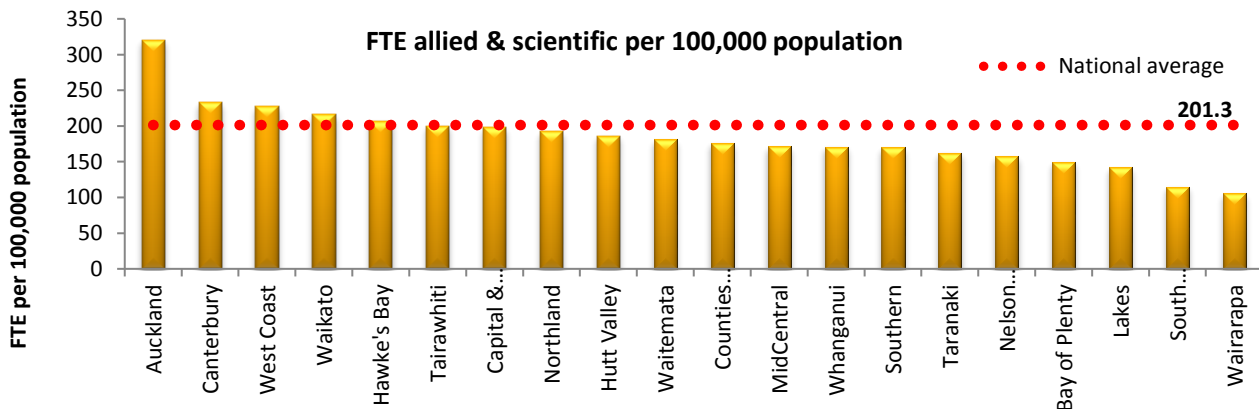
Figure 21: Population density of Care & Support by DHB

FTE care & support per 100,000 population

National average

127.3

X-axis categories: West Coast, Nelson..., Waitemata, Waikato, Capital &..., Northland, Hutt Valley, Hawke's Bay, Whanganui, Taranaki, Canterbury, South..., Tairawhiti, Auckland, Counties..., Bay of..., Lakes, MidCentral, Southern, Wairarapa
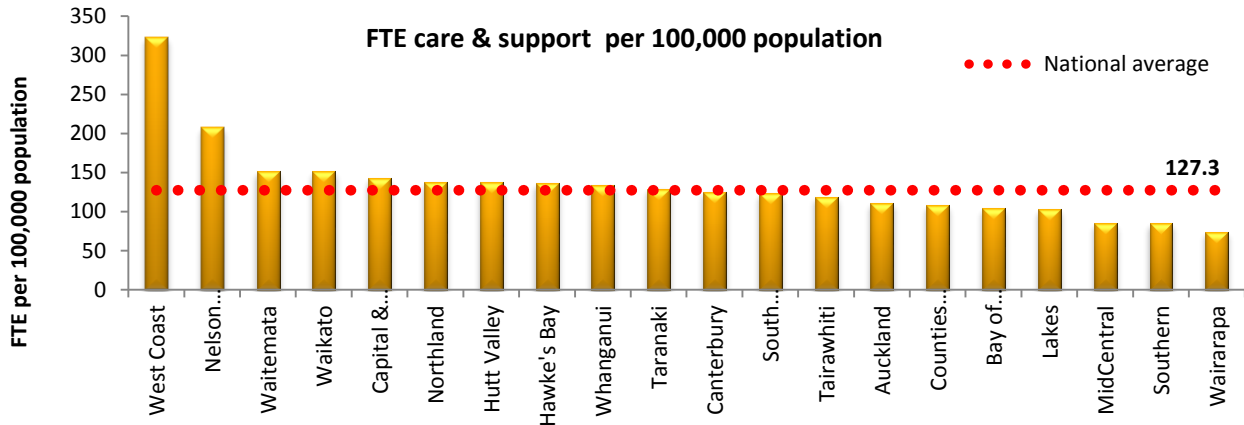
Figure 22: Population density of Senior Medical by DHB

FTE senior medical per 100,000 population

National average

89.8

X-axis categories: Auckland, Tairawhiti, Northland, Waikato, Capital & Coast, West Coast, Canterbury, Nelson..., MidCentral, Counties Manukau, Hutt Valley, Hawke's Bay, Bay of Plenty, Southern, Waitemata, Whanganui, Taranaki, Lakes, South Canterbury, Wairarapa
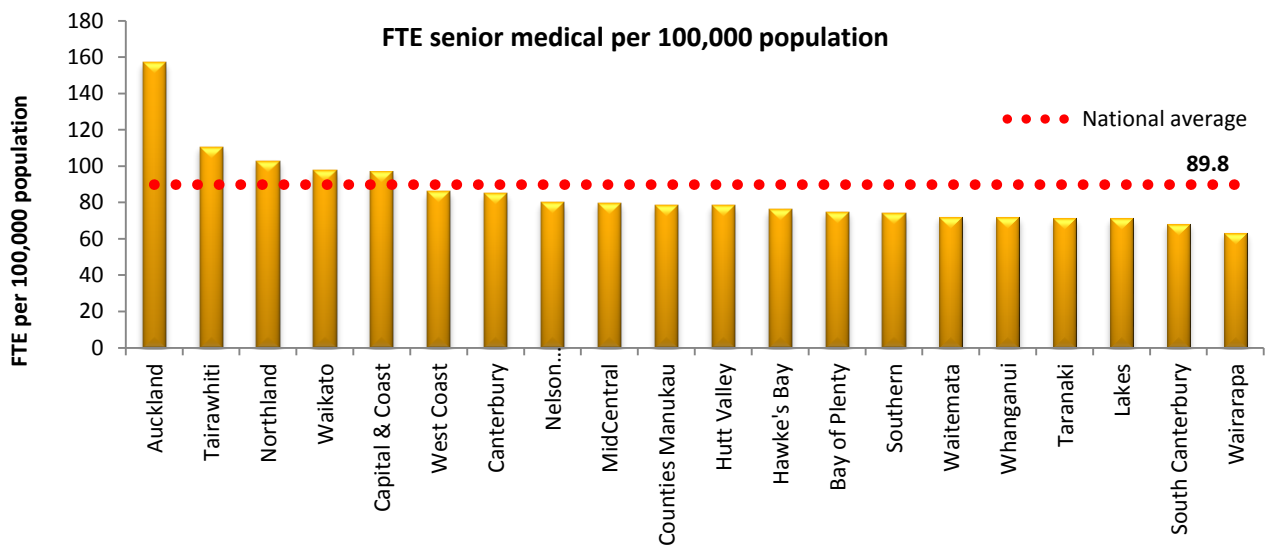
Figure 23: Population density of Junior Medical by DHB

FTE junior medical per 100,000 population

National average

81.0

X-axis categories: Auckland, Capital & Coast, Hutt Valley, Canterbury, MidCentral, Southern, Hawke's Bay, Waikato, Lakes, Bay of Plenty, Counties..., Northland, Taranaki, Whanganui, Waitemata, Nelson..., Tairawhiti, South..., Wairarapa, West Coast
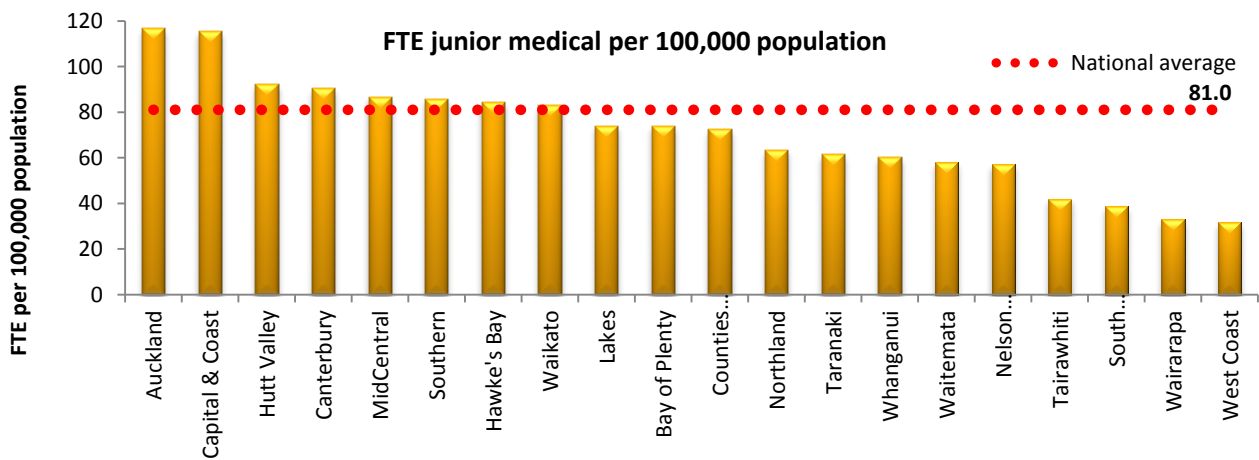
Figure 24: Population density of Midwives by DHB

FTE midwives per 100,000 population

- - - National average

19.8

FTE per 100,000 population

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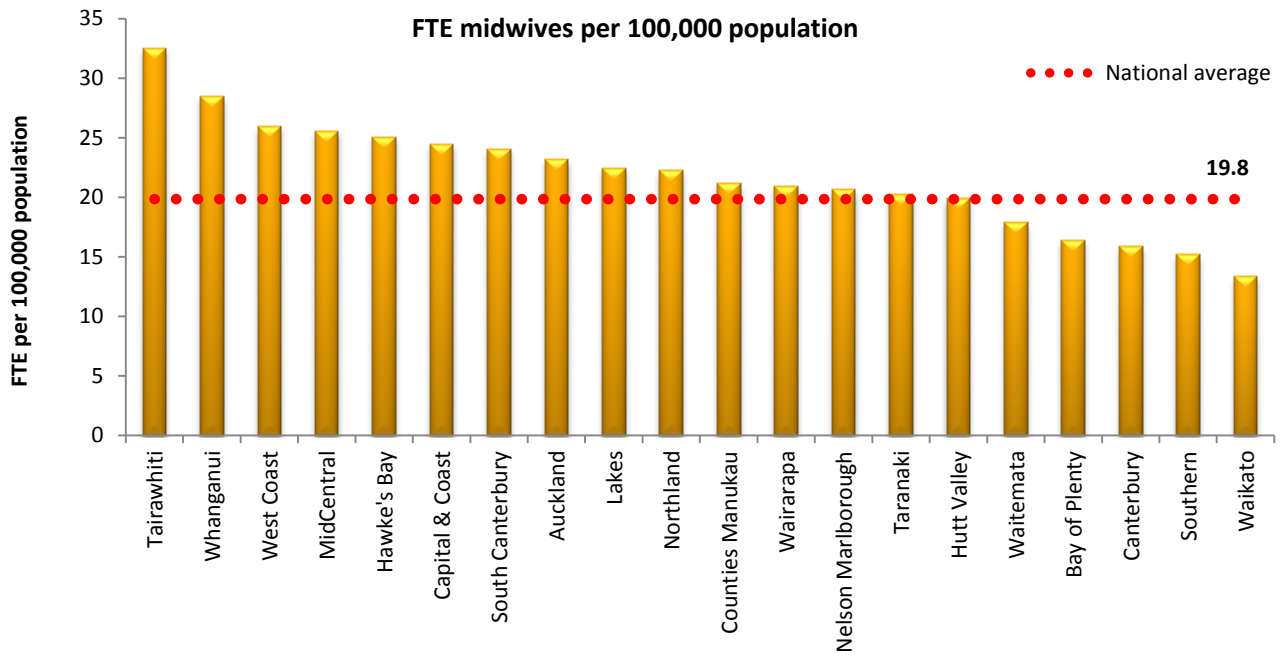
Figure 25: Population density of all DHB staff by DHB

FTE all staff per 100,000 population

- - - National average

1226.3

FTE per 100,000 population

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