DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT

1 SEPTEMBER TO 31 DECEMBER 2017

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 September 2017 to 31 December 2017 and is a snapshot in time at 31 December 2017. 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 September 2017 to December 2017 inclusive and is a snapshot taken by the DHBs on 31 December 2017.

- 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

For data to 31 December 2017, 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 70,785*** **55,489 female** **15,291 male**	**59,464 FTE***** **45,477 FTE* females** **13,983 FTE* males**	**Largest occupation group:** **Nurses – 26,986** **Smallest occupation group:** **Midwives – 1,351**
DHB employee average age 45.6 years **45.7 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 30.6 years)**	**Oldest female occupation groups:** **Corporate and other (mean age 50.4 years)** **Youngest female occupation group:** **Junior medical (mean age 30.4 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** – 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'.
*** Please note these totals include 5 employees reported as 'unknown' sex in Auckland DHB.

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
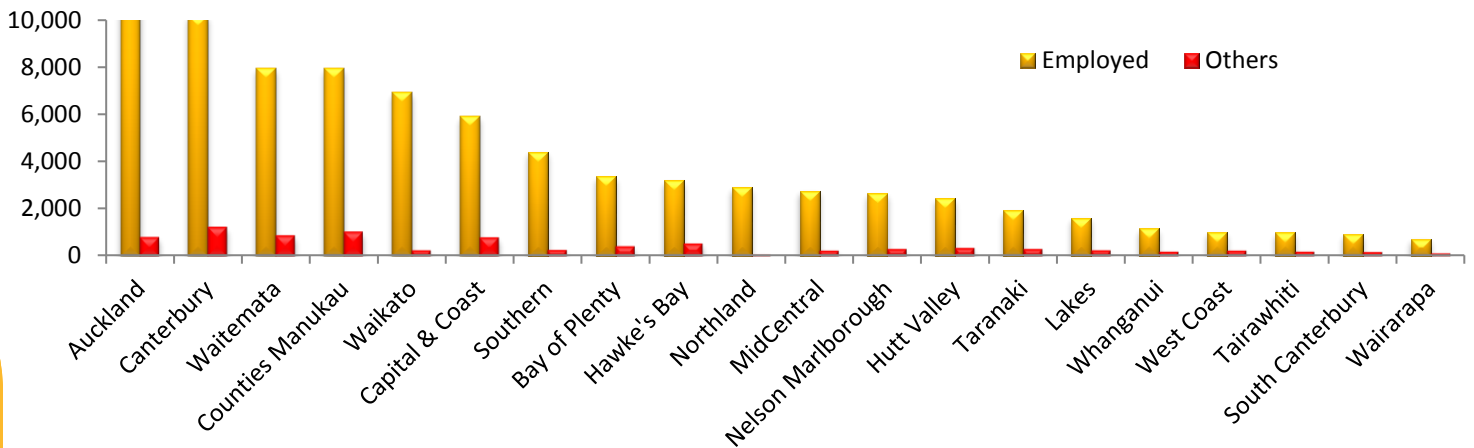
Table 1: Distribution of employment types

DHB	Employed	Others	Total	Proportion of DHB workforce
Auckland	9,627	770	10,397	13.1%
Canterbury	9,011	1178	10,189	12.9%
Waitemata	7,120	838	7,958	10.1%
Counties Manukau	6,951	990	7,941	10.0%
Waikato	6,697	244	6,941	8.8%
Capital & Coast	5,132	762	5,894	7.5%
Southern	4,140	248	4,388	5.5%
Bay of Plenty	2,945	408	3,353	4.2%
Hawke's Bay	2,656	513	3,169	4.0%
Northland	2,821	66	2,887	3.7%
MidCentral	2,502	229	2,731	3.5%
Nelson Marlborough	2,336	299	2,635	3.3%
Hutt Valley	2,085	330	2,415	3.1%
Taranaki	1,598	292	1,890	2.4%
Lakes	1,341	244	1,585	2.0%
Whanganui	964	181	1,145	1.4%
West Coast	756	231	987	1.2%
Tairawhiti	779	187	966	1.2%
South Canterbury	745	173	918	1.2%
Wairarapa	579	112	691	0.9%
Grand Total	**70,785**	**8,295**	**79,080**	**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 Head count	Nursing FTE	Nursing Mean FTE	Corporate and other Head count	Corporate and other FTE	Corporate and other Mean FTE	Allied & scientific Head count	Allied & scientific FTE	Allied & scientific Mean FTE	Care and support Head count	Care and support FTE	Care and support Mean FTE	Senior medical Head count	Senior medical FTE	Senior medical Mean FTE	Junior medical Head count	Junior medical FTE	Junior medical Mean FTE	Midwifery Head count	Midwifery FTE	Midwifery Mean FTE
Auckland	3553	2995.8	0.84	1636	1427.3	0.87	1923	1656.0	0.86	710	642.8	0.91	1036	832.3	0.80	614	599.1	0.98	155	116.2	0.75
Bay of Plenty	1192	916.7	0.77	608	539.4	0.89	403	337.5	0.84	294	244.4	0.83	212	174.4	0.82	182	181.5	1.00	54	39.0	0.72
Canterbury	3423	2814.0	0.82	1856	1606.2	0.87	1564	1284.4	0.82	970	761.3	0.78	568	480.2	0.85	501	493.4	0.98	129	83.3	0.65
Capital & Coast	2081	1681.3	0.81	1053	956.0	0.91	701	602.5	0.86	410	358.9	0.88	405	318.9	0.79	370	360.6	0.97	112	78.2	0.70
Counties Manukau	2661	2275.6	0.86	1299	1057.7	0.81	1141	994.1	0.87	712	596.0	0.84	548	457.2	0.83	433	424.4	0.98	157	115.0	0.73
Hawke's Bay	1034	733.9	0.71	555	478.6	0.86	431	354.8	0.82	277	217.8	0.79	147	127.3	0.87	150	147.1	0.98	62	39.0	0.63
Hutt Valley	704	577.3	0.82	472	425.5	0.90	327	267.4	0.82	232	200.9	0.87	155	121.4	0.78	151	146.6	0.97	44	31.7	0.72
Lakes	517	409.5	0.79	296	264.2	0.89	179	151.9	0.85	129	105.5	0.82	91	80.1	0.88	88	87.8	1.00	41	30.5	0.74
MidCentral	1023	838.4	0.82	572	521.7	0.91	341	301.7	0.88	181	147.3	0.81	168	147.0	0.88	153	150.2	0.98	64	42.7	0.67
Nelson Marlborough	775	578.2	0.75	506	416.5	0.82	297	224.2	0.75	468	336.1	0.72	157	128.4	0.82	92	89.3	0.97	41	27.3	0.67
Northland	1111	842.4	0.76	550	484.4	0.88	439	365.8	0.83	363	277.3	0.76	191	185.9	0.97	120	118.7	0.99	47	32.2	0.69
South Canterbury	316	245.4	0.78	159	126.5	0.80	94	72.6	0.77	80	54.2	0.68	55	39.8	0.72	24	23.9	1.00	17	13.8	0.81
Southern	1717	1366.5	0.80	825	730.3	0.89	629	536.8	0.85	332	264.1	0.80	295	237.2	0.80	272	262.1	0.96	70	49.0	0.70
Tairawhiti	308	236.0	0.77	187	164.9	0.88	105	90.5	0.86	79	63.8	0.81	57	51.4	0.90	21	20.6	0.98	22	16.3	0.74
Taranaki	584	443.9	0.76	378	339.0	0.90	235	190.2	0.81	176	149.0	0.85	113	96.6	0.86	82	81.0	0.99	30	22.1	0.74
Waikato	2528	2103.9	0.83	1491	1324.9	0.89	1019	888.3	0.87	743	629.0	0.85	417	365.7	0.88	406	398.7	0.98	93	62.7	0.67
Wairarapa	251	176.5	0.70	131	101.6	0.78	68	50.1	0.74	59	40.1	0.68	36	31.3	0.87	15	14.4	0.96	19	12.6	0.66
Waitemata	2494	2094.3	0.84	1250	1095.4	0.88	1315	1094.3	0.83	1010	904.7	0.90	520	441.4	0.85	372	364.8	0.98	159	105.5	0.66
West Coast	307	260.3	0.85	158	131.0	0.83	83	70.1	0.84	151	103.5	0.69	30	25.5	0.85	13	12.5	0.96	14	9.4	0.67
Whanganui	407	329.1	0.81	206	182.5	0.89	134	109.9	0.82	108	86.4	0.80	50	45.8	0.92	38	37.8	0.99	21	16.7	0.80
Grand Total	26986	21918.8	0.81	14188	12373.6	0.87	11428	9643.1	0.84	7484	6183.2	0.83	5251	4387.9	0.84	4097	4014.5	0.98	1351	943.2	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
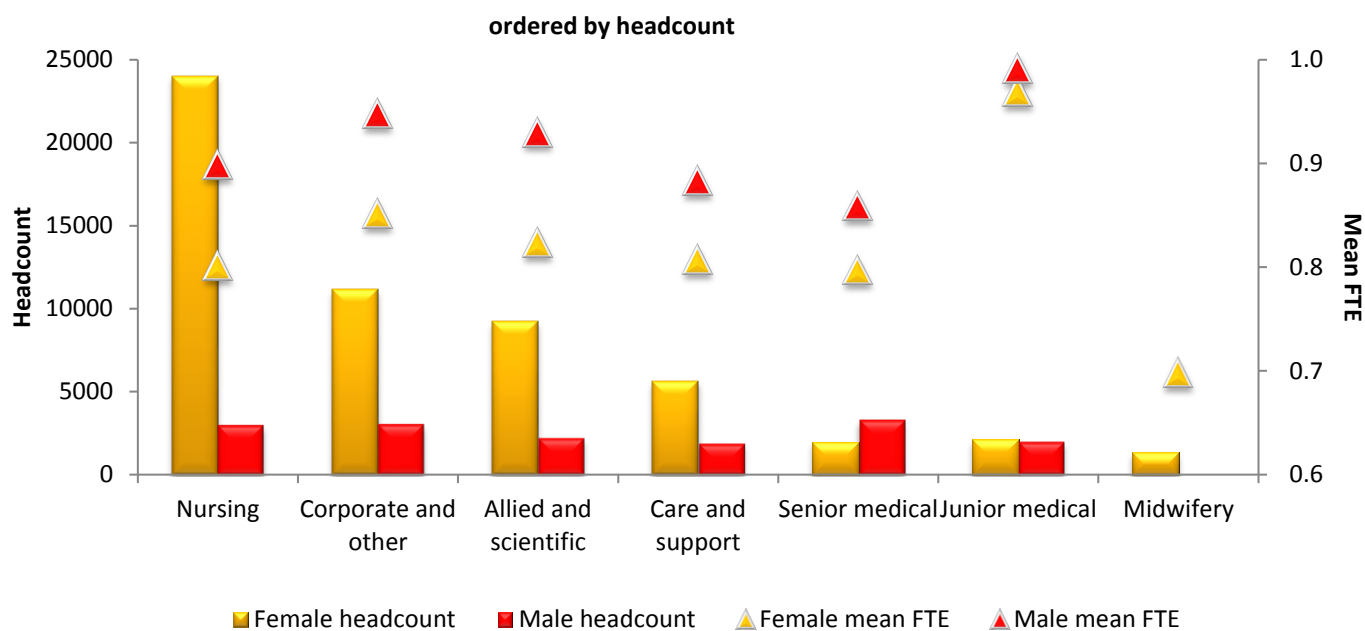
Table 3: Occupation group headcount and mean FTE by sex

Occupation group	Female		Male		Total	
	Headcount	Mean FTE	Headcount	Mean FTE	Headcount	Mean FTE
Nursing	24,017	0.80	2,965	0.90	26,982	0.81
Corporate and other	11,171	0.85	3,017	0.95	14,188	0.87
Allied and scientific	9,240	0.82	2,187	0.93	11,427	0.84
Care and support	5,616	0.81	1,868	0.88	7,484	0.83
Senior medical	1,973	0.80	3,278	0.86	5,251	0.84
Junior medical	>2,121	0.97	>1,968	0.99	4,097	0.98
Midwifery	>1,343	0.70	**	**	1,351	0.70
Grand Total	**55,489**	**0.82**	**15,291**	**0.91**	**70,780*****	**0.84**

**   Data suppressed due to low headcounts (less than 5)
***   Please note these totals exclude 5 employees reported as 'unknown' sex in Auckland DHB.

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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.

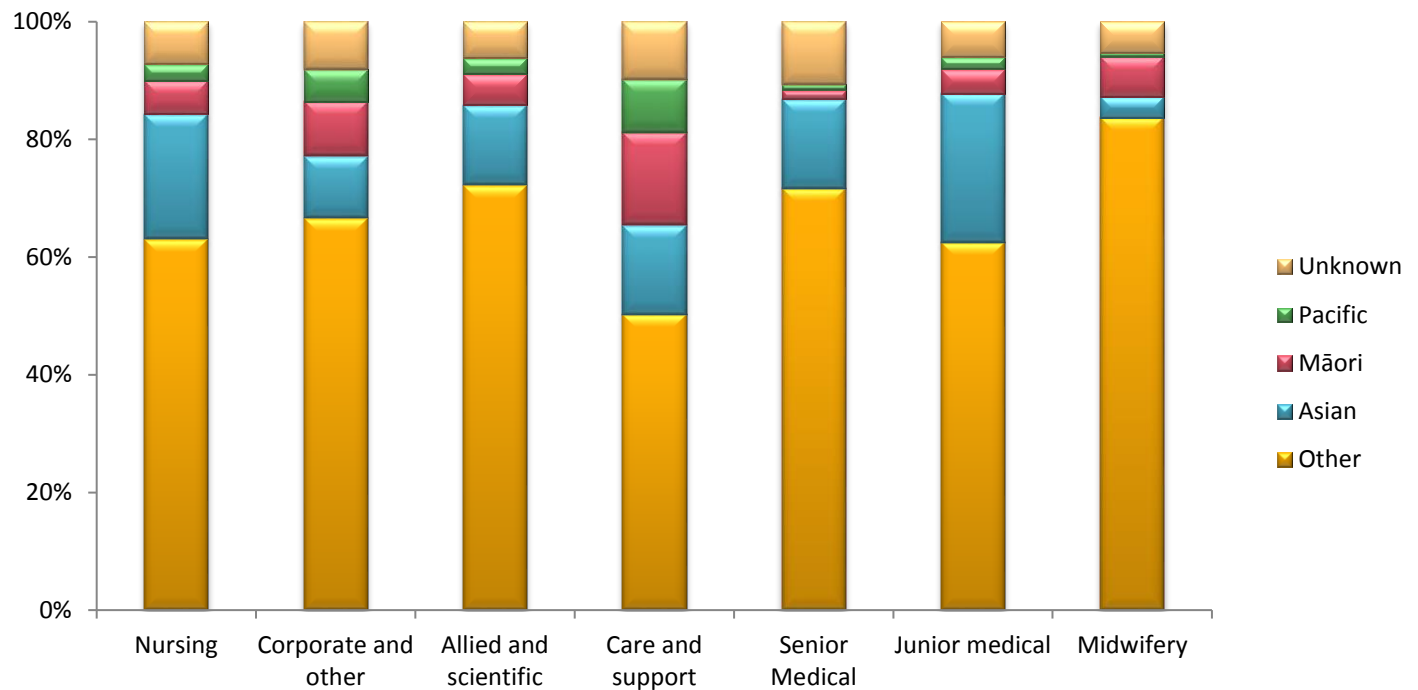**Figure 3: Proportion of ethnicities by occupation group**

Table 4: Count and proportion of ethnicities by occupation group

Occupation group	Other*		Asian		Māori		Pacific		Unknown		Total
Nursing	17,019	63.1%	5,737	21.3%	1,539	5.7%	753	2.8%	1,938	7.2%	26,986
Corporate and other	9,452	66.6%	1,502	10.6%	1,311	9.2%	763	5.4%	1,160	8.2%	14,188
Allied and scientific	8,257	72.3%	1,556	13.6%	595	5.2%	309	2.7%	711	6.2%	11,428
Care and support	3,758	50.2%	1,143	15.3%	1,169	15.6%	681	9.1%	733	9.8%	7,484
Senior Medical	3,760	71.6%	802	15.3%	82	1.6%	47	0.9%	560	10.7%	5,251
Junior medical	2,559	62.5%	1,038	25.3%	170	4.1%	84	2.1%	246	6.0%	4,097
Midwifery	1,131	83.7%	49	3.6%	92	6.8%	8	0.6%	71	5.3%	1,351
Grand Total	45,936	64.9%	11,827	16.7%	4,958	7.0%	2,645	3.7%	5,419	7.7%	70,785

* '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 65,366 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 2017.

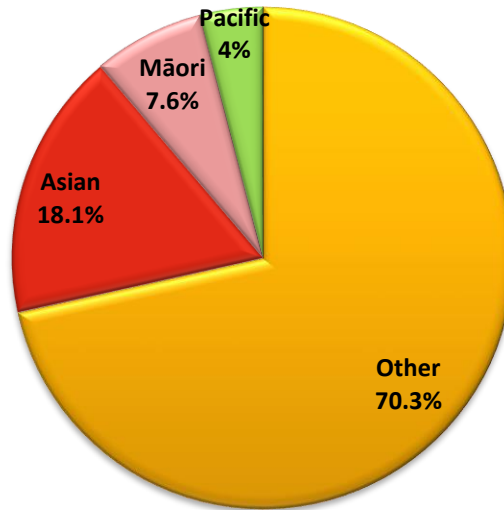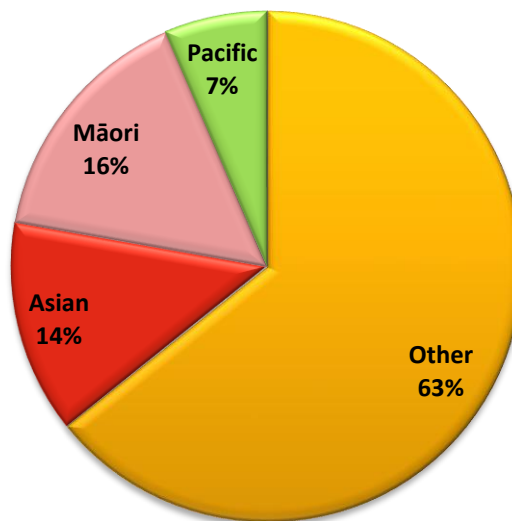**Figure 4: Proportion of identifiable ethnicities for all DHB employees**

Figure 5: Proportion of identifiable ethnicities for projected population data at 31 December 2017

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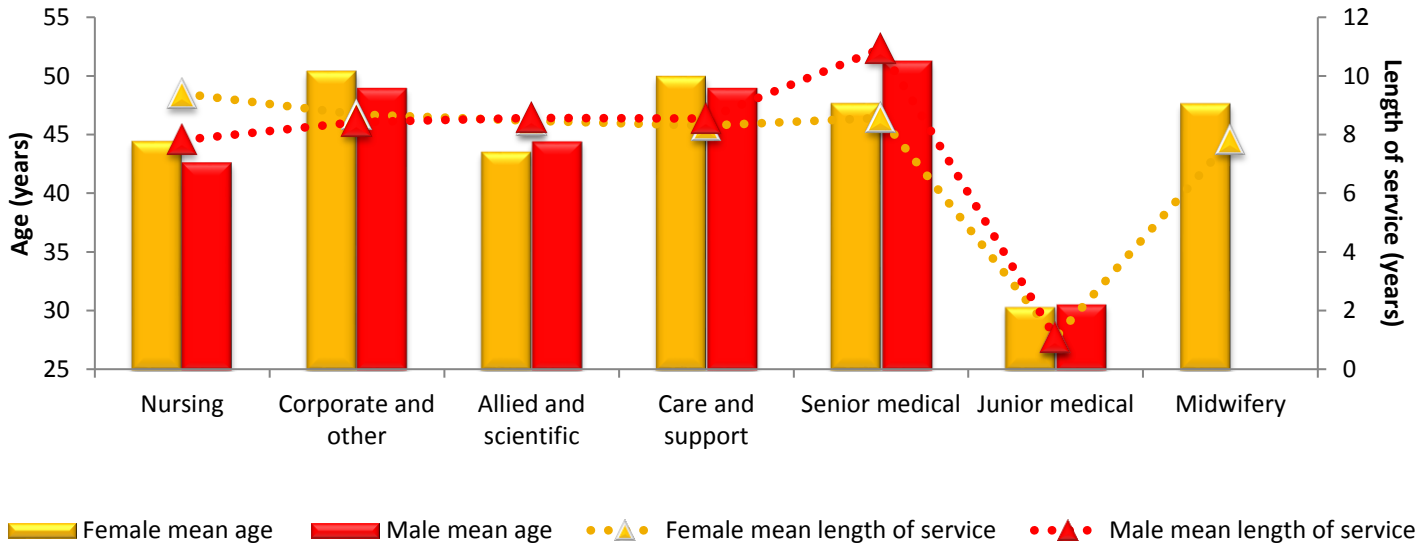
The following table gives the actual figures behind the chart above.

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

Occupation group	Female		Male		Total	
	Mean length of service	Mean age	Mean length of service	Mean age	Mean length of service	Mean age
Nursing	9.4	44.5	7.8	42.7	9.2	44.3
Corporate and other	8.7	50.4	8.4	49.0	8.6	50.1
Allied and scientific	8.5	43.6	8.6	44.4	8.5	43.7
Care and support	8.3	50.0	8.5	48.9	8.4	49.7
Senior medical	8.6	47.7	10.9	51.3	10.0	49.9
Junior medical	1.1	30.4	1.1	30.6	1.1	30.5
Midwifery	7.8	47.6	**	**	7.8	47.6
Grand Total	**8.6**	**45.7**	**7.9**	**45.2**	**8.5**	**45.6**

** 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.
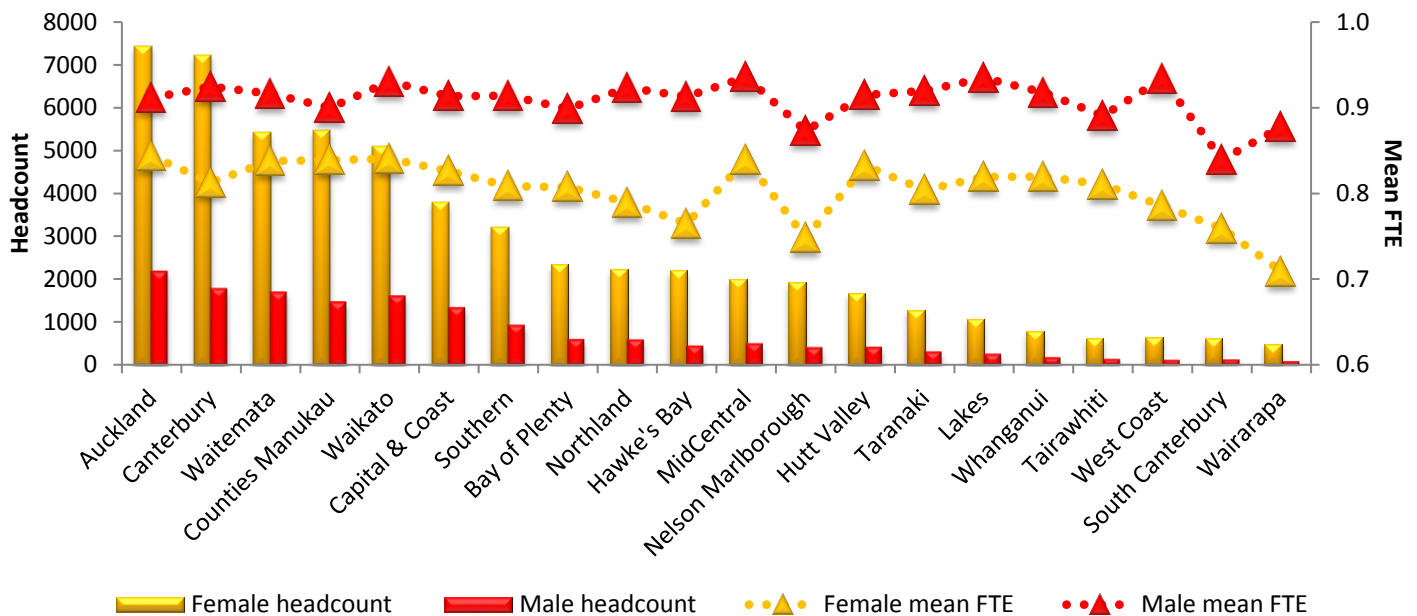
Figure 7: Headcount and mean FTE by sex and DHB

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	Tairawhiti	West Coast	South Canterbury	Wairarapa
Female	Head count	7445	7235	5421	5476	5091	3793	3207	2337	2225	2200	1997	1915	1661	1279	1074	780	627	630	612	484
	Mean FTE	0.84	0.81	0.84	0.84	0.84	0.83	0.81	0.81	0.79	0.76	0.84	0.75	0.83	0.80	0.82	0.82	0.81	0.79	0.76	0.71
Male	Head count	2177	1776	1699	1475	1606	1339	933	608	596	456	505	421	424	319	267	184	152	126	133	95
	Mean FTE	0.91	0.92	0.92	0.90	0.93	0.91	0.91	0.90	0.92	0.91	0.94	0.87	0.92	0.92	0.93	0.92	0.89	0.93	0.84	0.88
Total	Head count	9622	9011	7120	6951	6697	5132	4140	2945	2821	2656	2502	2336	2085	1598	1341	964	779	756	745	579
	Mean FTE	0.86	0.83	0.86	0.85	0.86	0.85	0.83	0.83	0.82	0.79	0.86	0.77	0.85	0.83	0.84	0.84	0.83	0.81	0.77	0.74

*   Please note 5 Auckland employees have a sex of 'Unknown' so are excluded from this table.

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.

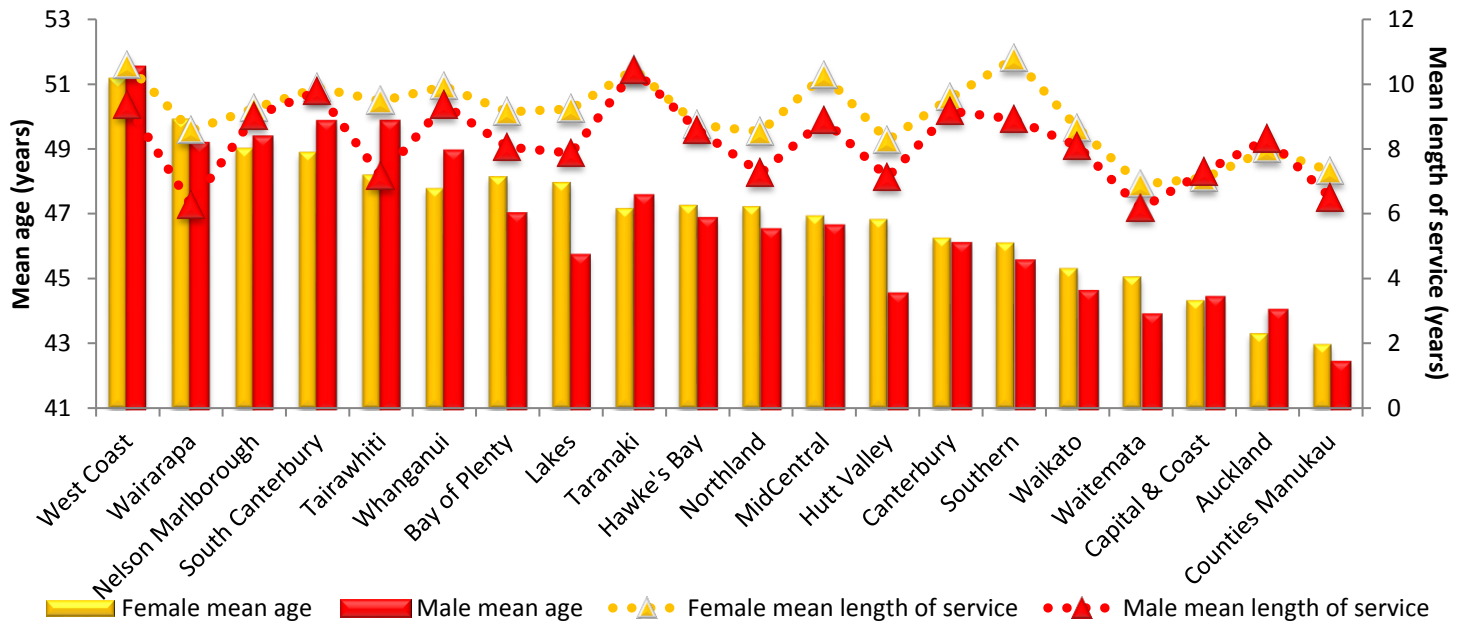**Figure 8: Mean ages and mean length of service by DHB and sex**

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	10.6	51.2	9.4	51.5	10.4	51.2
Wairarapa	8.6	49.9	6.3	49.2	8.2	49.8
Nelson Marlborough	9.3	49.0	9.0	49.4	9.2	49.1
South Canterbury	9.9	48.9	9.8	49.8	9.9	49.1
Tairawhiti	9.5	48.2	7.1	49.9	9.0	48.5
Whanganui	9.9	47.8	9.4	48.9	9.8	48.0
Bay of Plenty	9.1	48.1	8.1	47.0	8.9	47.9
Lakes	9.2	48.0	7.9	45.7	9.0	47.5
Taranaki	10.5	47.2	10.4	47.6	10.5	47.3
Hawke's Bay	8.7	47.3	8.6	46.9	8.7	47.2
Northland	8.5	47.2	7.3	46.5	8.3	47.1
MidCentral	10.3	46.9	8.9	46.6	10.0	46.9
Hutt Valley	8.3	46.8	7.1	44.5	8.0	46.4
Canterbury	9.6	46.3	9.2	46.1	9.5	46.2
Southern	10.8	46.1	8.9	45.6	10.4	46.0
Waikato	8.6	45.3	8.1	44.6	8.5	45.2
Waitemata	6.9	45.1	6.2	43.9	6.7	44.8
Capital & Coast	7.1	44.3	7.3	44.4	7.1	44.4
Auckland	8.0	43.3	8.3	44.0	8.1	43.5
Counties Manukau	7.3	43.0	6.5	42.4	7.1	42.9
Grand Total	**8.6**	**45.7**	**7.9**	**45.2**	**8.5**	**45.6**

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.
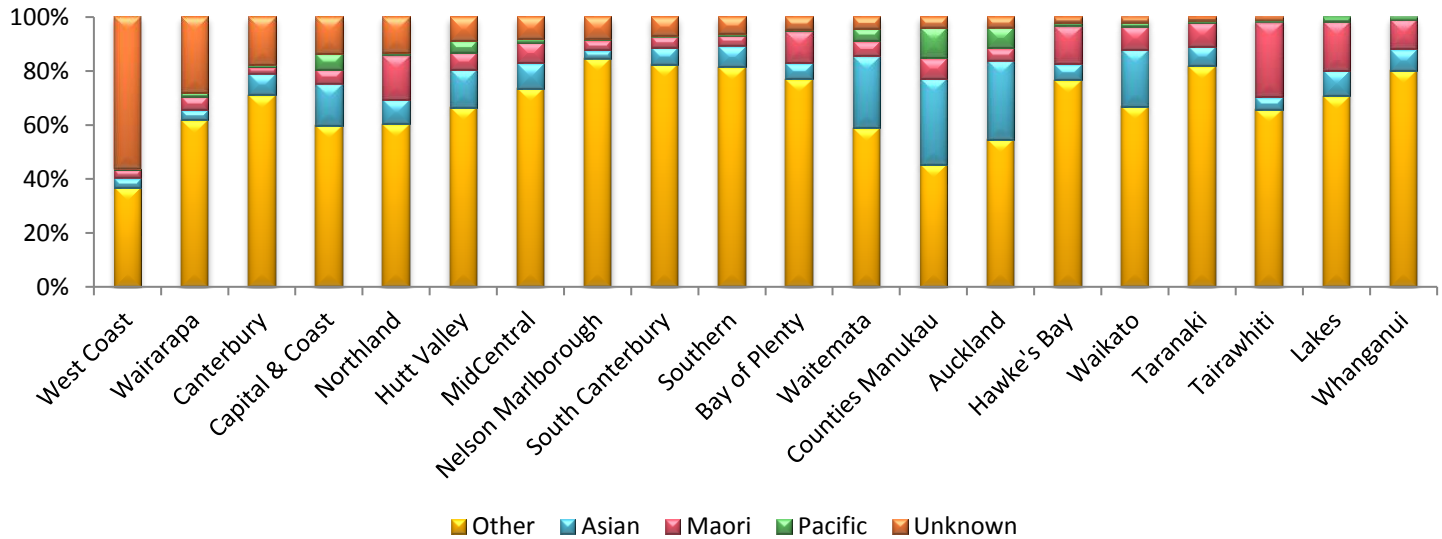
Figure 9: Proportion of reported ethnicities by DHB

Other Asian Maori Pacific Unknown

Table 8: Distribution of reported ethnicities by DHB

DHB	Other*	Asian	Māori	Pacific	Unknown	Total
West Coast	278	27	23	**	>421	756
Wairarapa	358	22	28	9	162	579
Canterbury	6,408	706	223	81	1,593	9,011
Capital & Coast	3,071	796	270	307	688	5,132
Northland	1,702	256	464	27	372	2,821
Hutt Valley	1,386	292	134	91	182	2,085
MidCentral	1,839	236	193	29	205	2,502
Nelson Marlborough	1,979	71	86	10	190	2,336
South Canterbury	613	48	30	**	>48	745
Southern	3,372	325	161	27	255	4,140
Bay of Plenty	2,266	174	350	23	132	2,945
Waitemata	4,194	1,895	393	333	305	7,120
Counties Manukau	3,161	2,214	523	776	277	6,951
Auckland	5,255	2,831	427	750	364	9,627
Hawke's Bay	2,039	158	370	34	55	2,656
Waikato	4,472	1,420	576	94	135	6,697
Taranaki	1,308	116	143	11	20	1,598
Tairawhiti	512	36	217	7	7	779
Lakes	949	128	242	22	0	1,341
Whanganui	774	76	105	9	0	964
Grand Total	45,936	11,827	4,958	2,645	5,419	70,785

* '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
Taranaki	12.2	10.8	9.9	10.6	8.3	1.2	8.6	10.5
West Coast	11.5	8.9	11.6	10.6	7.3	0.7	9.6	10.4
Southern	12.0	10.6	9.6	9.9	10.7	1.7	10.6	10.4
MidCentral	11.4	10.0	9.4	10.4	10.8	1.3	8.4	10.0
South Canterbury	10.8	9.4	9.3	11.3	9.8	0.6	7.5	9.9
Whanganui	10.0	9.9	11.4	10.2	9.6	0.9	10.6	9.8
Canterbury	10.9	8.3	9.7	9.5	11.4	2.0	9.2	9.5
Nelson Marlborough	10.5	8.2	9.0	9.6	10.5	0.8	7.8	9.2
Tairawhiti	11.5	7.5	8.0	8.0	8.3	0.5	5.7	9.0
Lakes	10.2	9.1	10.1	9.0	8.3	1.0	6.2	9.0
Bay of Plenty	10.2	9.4	8.4	7.7	9.8	1.1	9.0	8.9
Hawke's Bay	9.1	9.2	9.1	8.8	10.2	1.2	8.8	8.7
Waikato	9.3	9.1	8.3	7.7	10.6	1.8	6.7	8.5
Northland	8.9	9.3	8.9	6.2	8.6	1.0	8.3	8.3
Wairarapa	9.3	6.9	10.0	7.3	7.8	0.3	6.1	8.2
Auckland	8.0	8.9	8.2	8.8	10.6	0.6	8.3	8.1
Hutt Valley	9.2	7.9	8.3	8.8	8.9	0.5	7.3	8.0
Capital & Coast	7.5	7.2	6.9	8.9	9.8	1.0	6.7	7.1
Counties Manukau	7.4	8.1	6.8	7.2	9.7	0.4	6.6	7.1
Waitemata	6.7	6.9	7.7	6.2	9.0	0.5	6.9	6.7
Grand Total	9.2	8.6	8.5	8.4	10.0	1.1	7.8	8.5

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 South Canterbury shows that 50% of staff took 0 hours sick leave or less per FTE in the December quarter, and 75% of staff took 64.2 hours or less of sick leave per FTE. The data for Canterbury shows that 50% of staff took 48 hours or less sick leave per FTE, and that 75% of staff took 108 hours or less of sick leave per FTE.

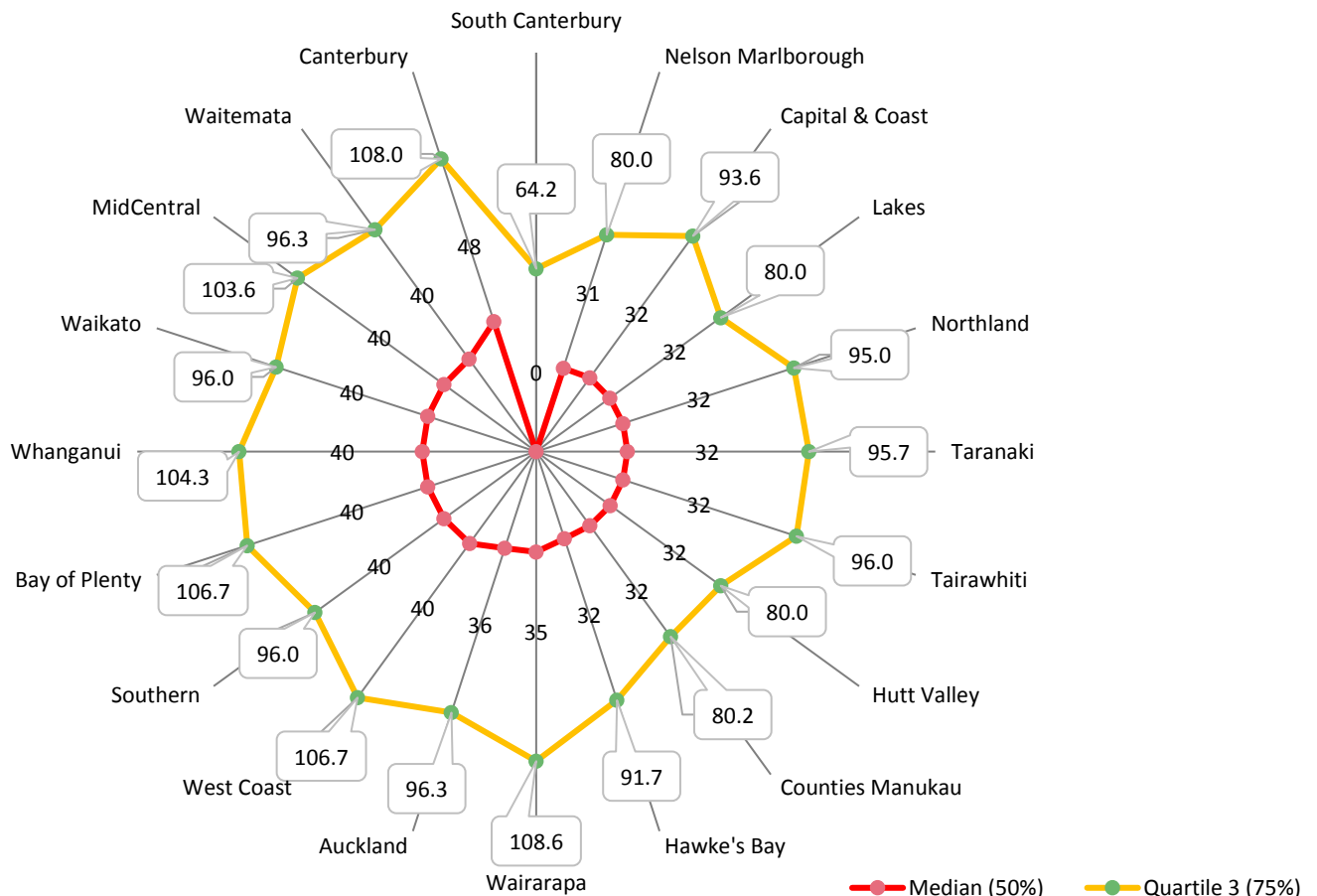**Figure 10: Average annualized sick leave hours per FTE by DHB**

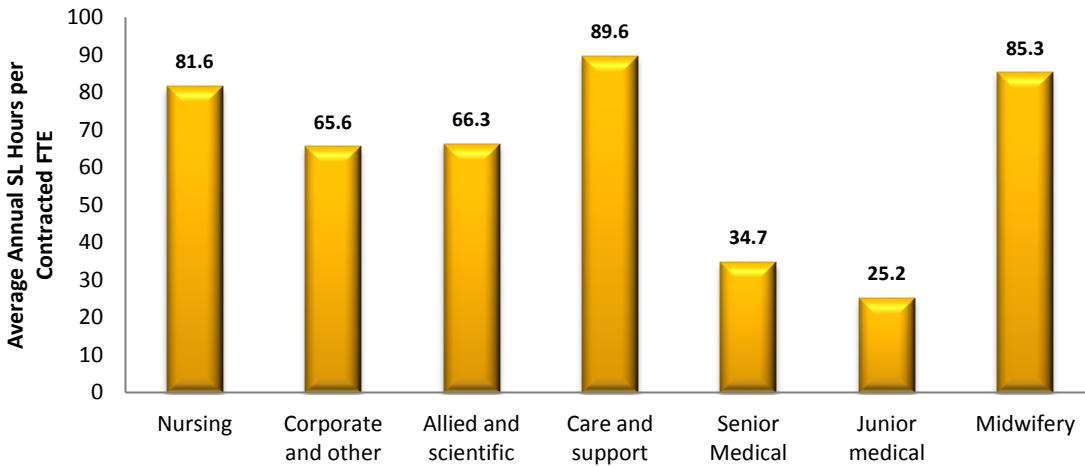**Figure 11: Average annual sick leave hours per FTE by occupational group**

Average Annual SL Hours per Contracted FTE

Nursing	Corporate and other	Allied and scientific	Care and support	Senior Medical	Junior medical	Midwifery
81.6	65.6	66.3	89.6	34.7	25.2	85.3

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

Average Annual SL Hours per Contracted FTE

	<25	25-34	35-44	45-54	55-64	>=65
F	66.2	69.9	74.8	72.7	77.5	86.1
M	43.5	51.5	52.1	54.5	59.9	83.2
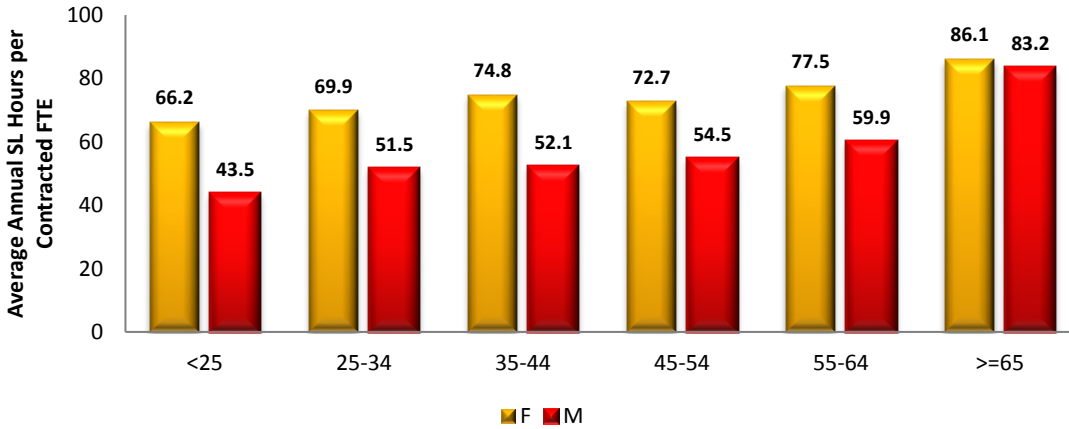
Figure 13: Average annual sick leave hours per FTE by ethnicity by sex
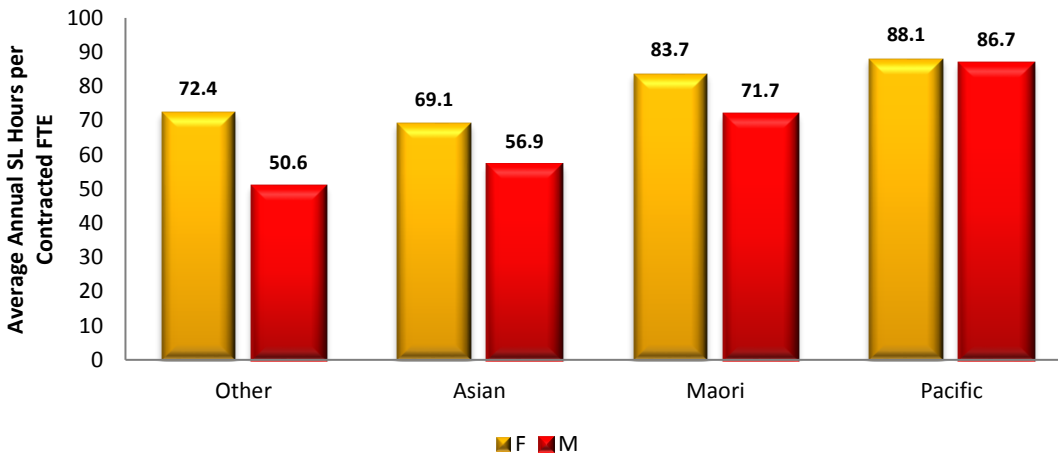
Average Annual SL Hours per Contracted FTE

	Other	Asian	Maori	Pacific
F	72.4	69.1	83.7	88.1
M	50.6	56.9	71.7	86.7

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.

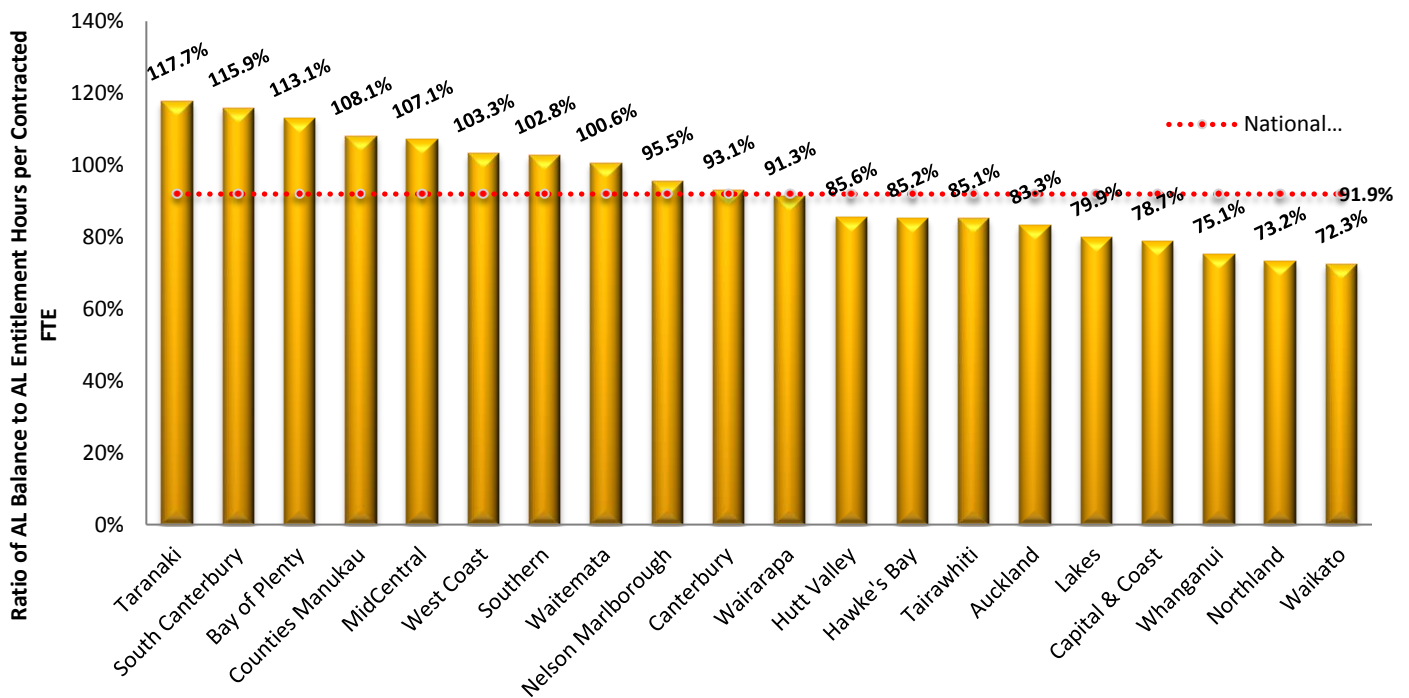**Figure 14: Ratio of annual leave balance to annual leave entitlement hours per FTE by DHB**

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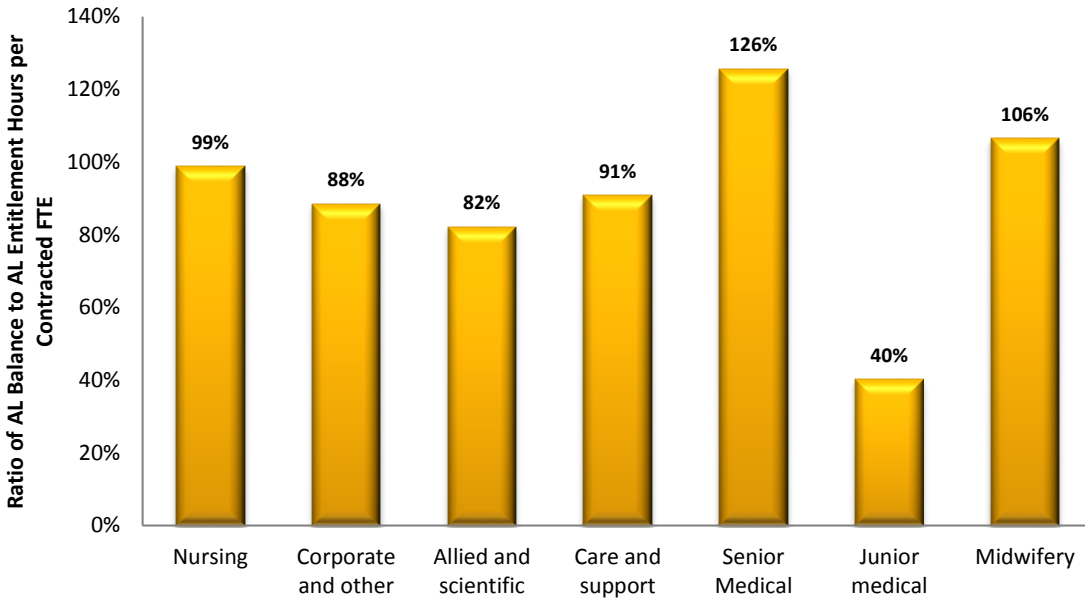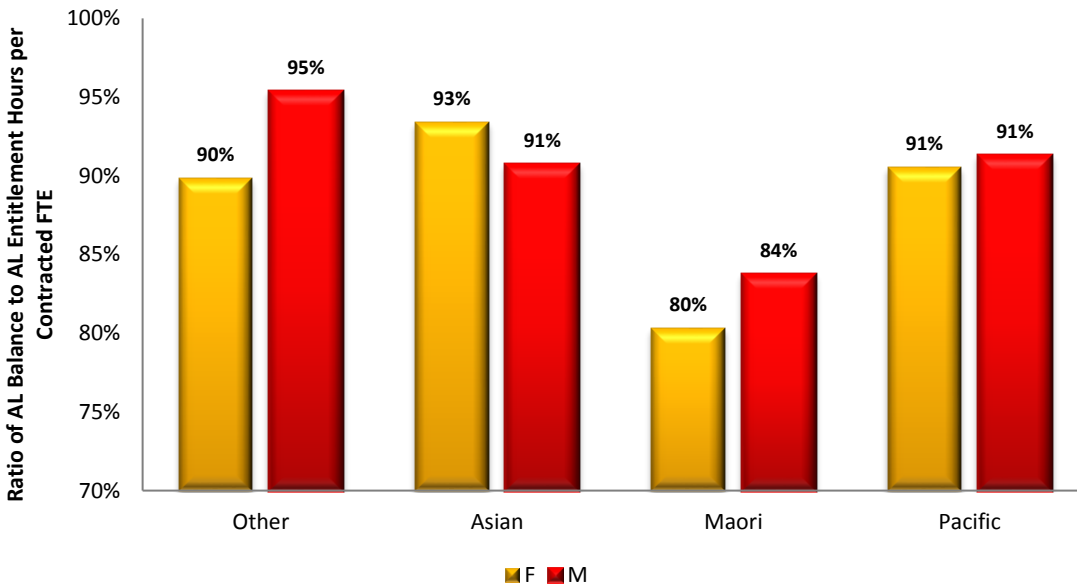

Ratio of AL Balance to AL Entitlement Hours per Contracted FTE

Nursing	Corporate and other	Allied and scientific	Care and support	Senior Medical	Junior medical	Midwifery
99%	88%	82%	91%	126%	40%	106%

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

Ratio of AL Balance to AL Entitlement Hours per Contracted FTE

|	Other	Asian	Maori	Pacific
F	90%	93%	80%	91%
M	95%	91%	84%	91%

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 2017 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
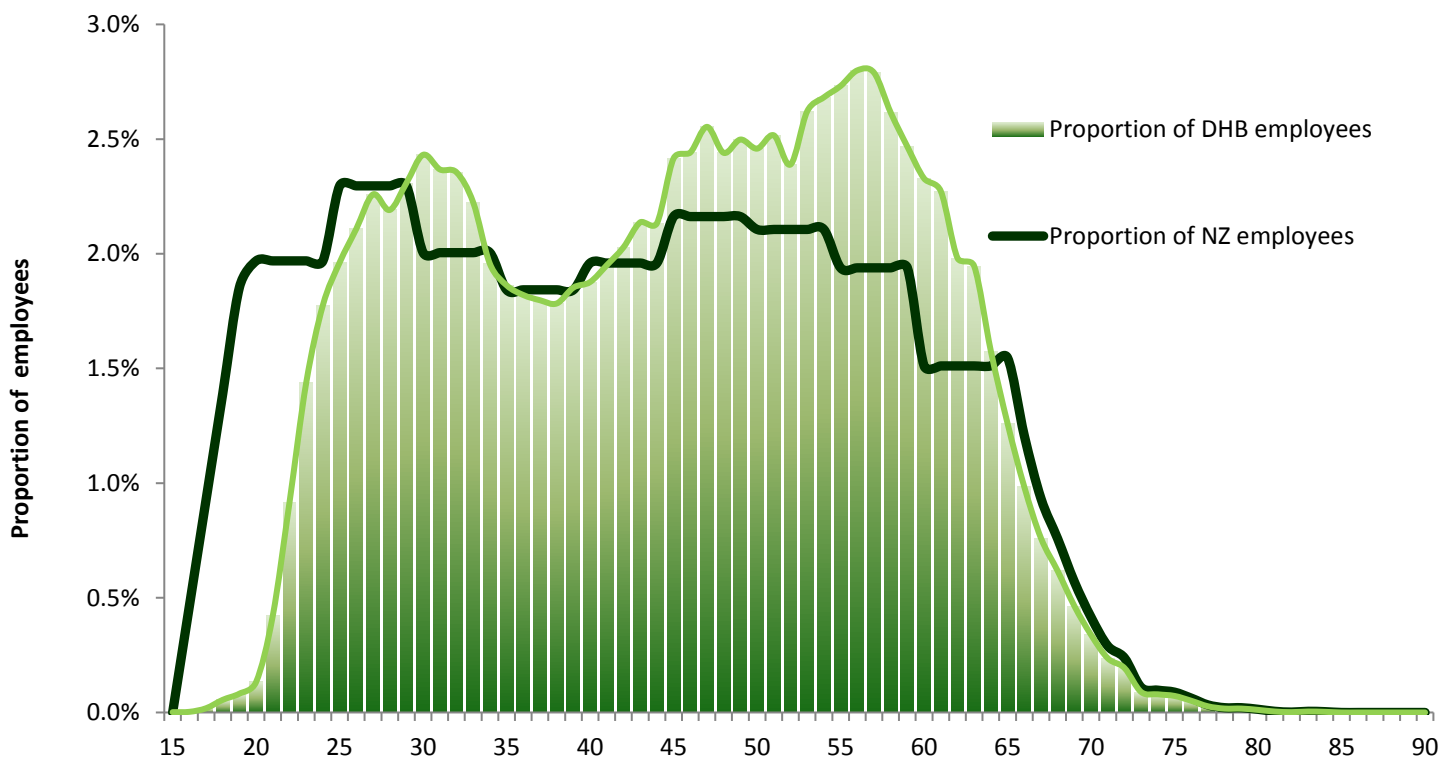
## ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION

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 2012 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.
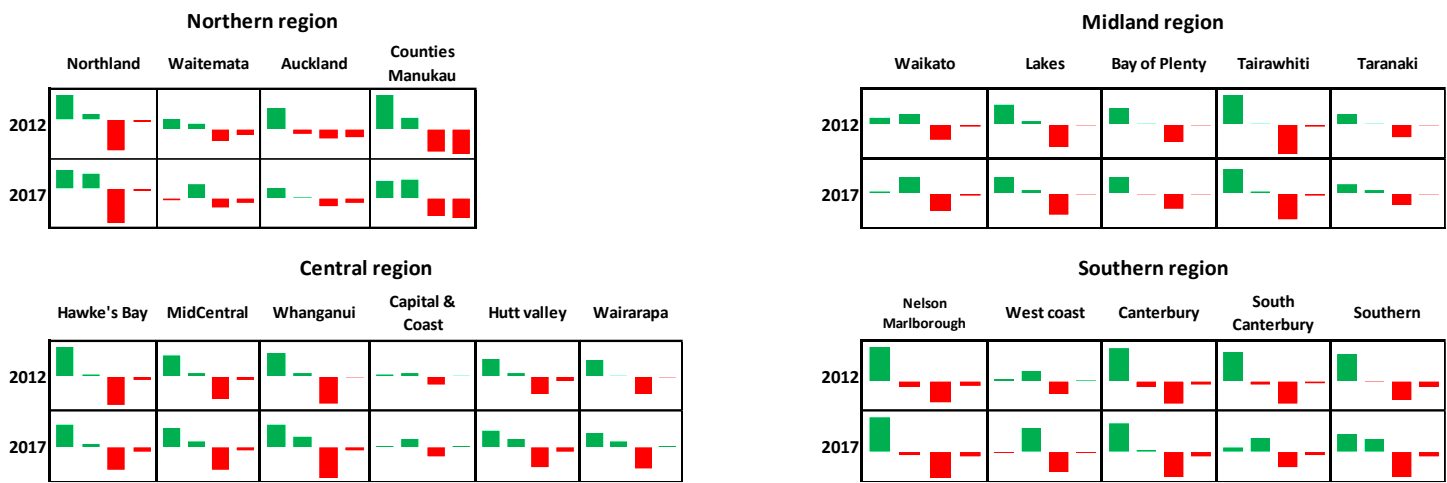
Note: The four bars are ordered as: Other, Asian, Māori and Pacific

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 2012 and 2017; 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).

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.
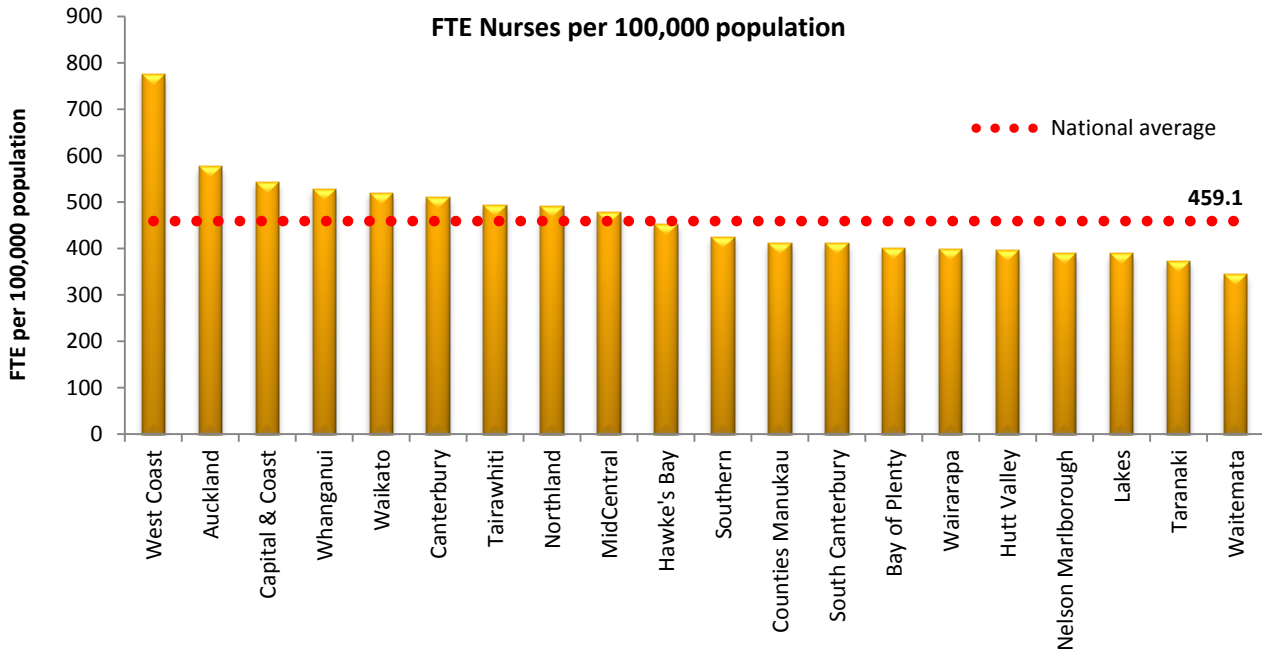
Figure 18: Population density of Nurses by DHB

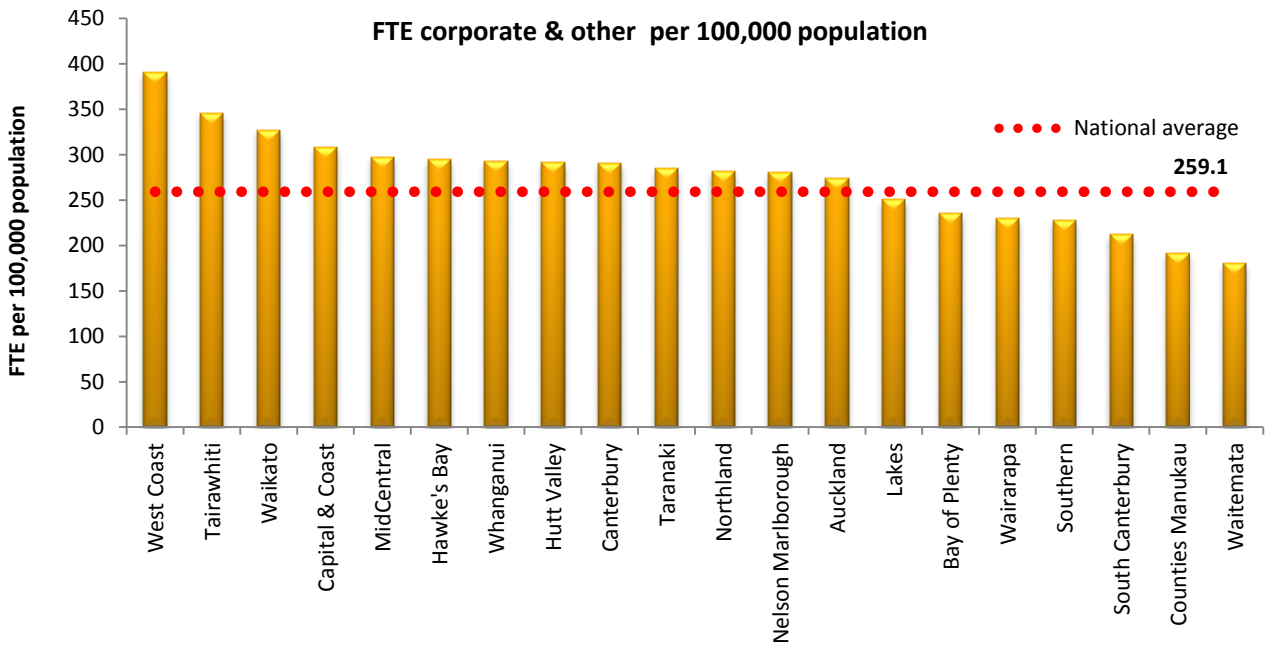**Figure 19: Population density of Corporate & Other by DHB**

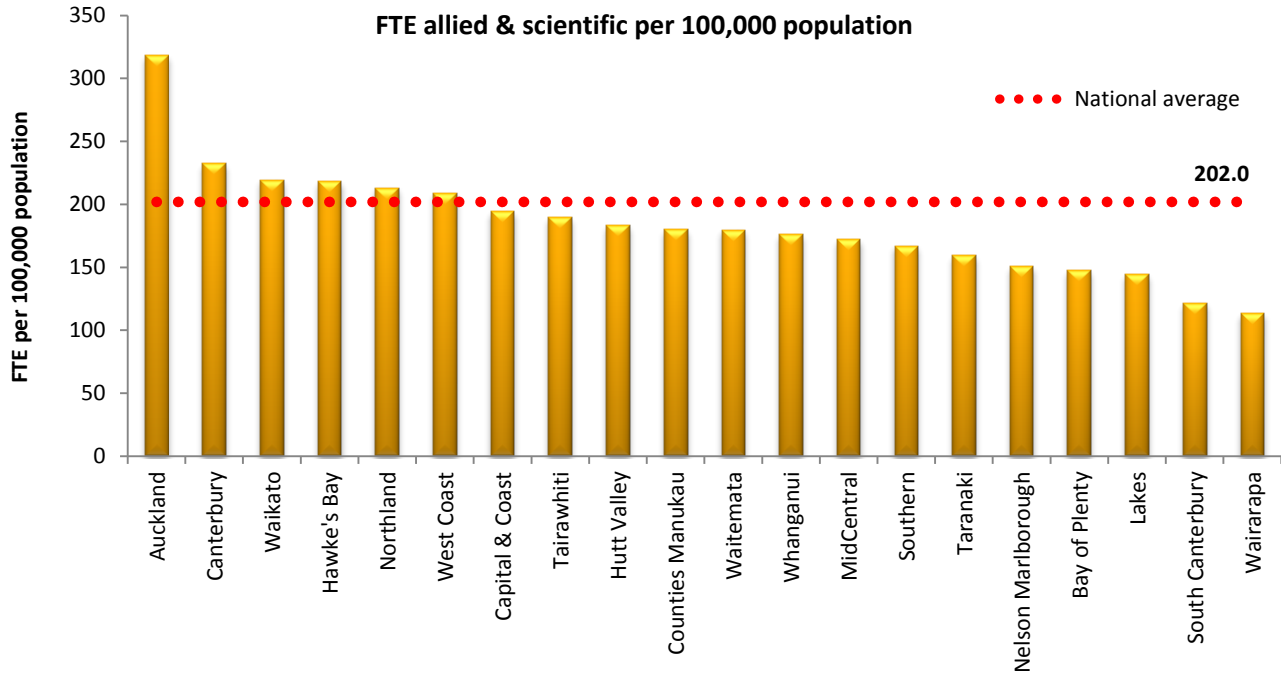**Figure 20: Population density of Allied & Scientific by DHB**

FTE allied & scientific per 100,000 population

- - - National average

202.0

FTE per 100,000 population

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

Figure 21: Population density of Care & Support by DHB

FTE care & support per 100,000 population

- - - National average

129.5

FTE per 100,000 population

DHBs (left to right): West Coast, Nelson Marlborough, Northland, Waikato, Waitemata, Whanganui, Canterbury, Hutt Valley, Hawke's Bay, Tairawhiti, Taranaki, Auckland, Capital & Coast, Counties Manukau, Bay of Plenty, Lakes, South Canterbury, Wairarapa, MidCentral, Southern
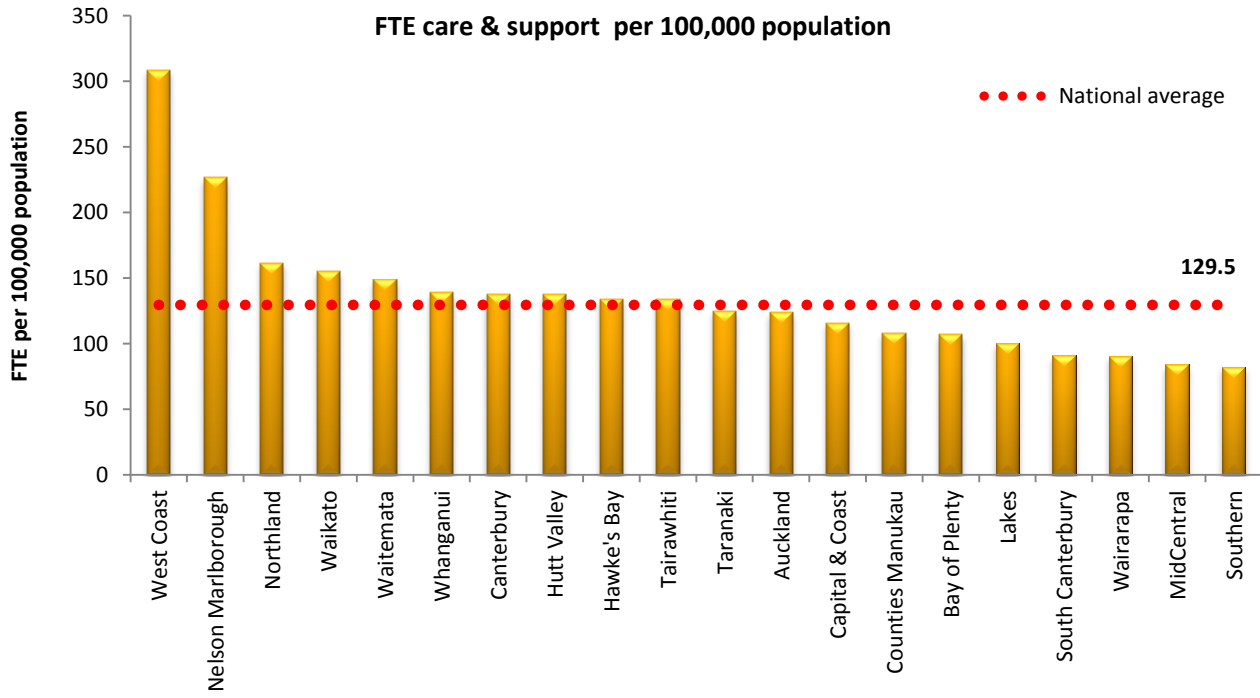
Figure 22: Population density of Senior Medical by DHB

FTE senior medical per 100,000 population

National average

91.9
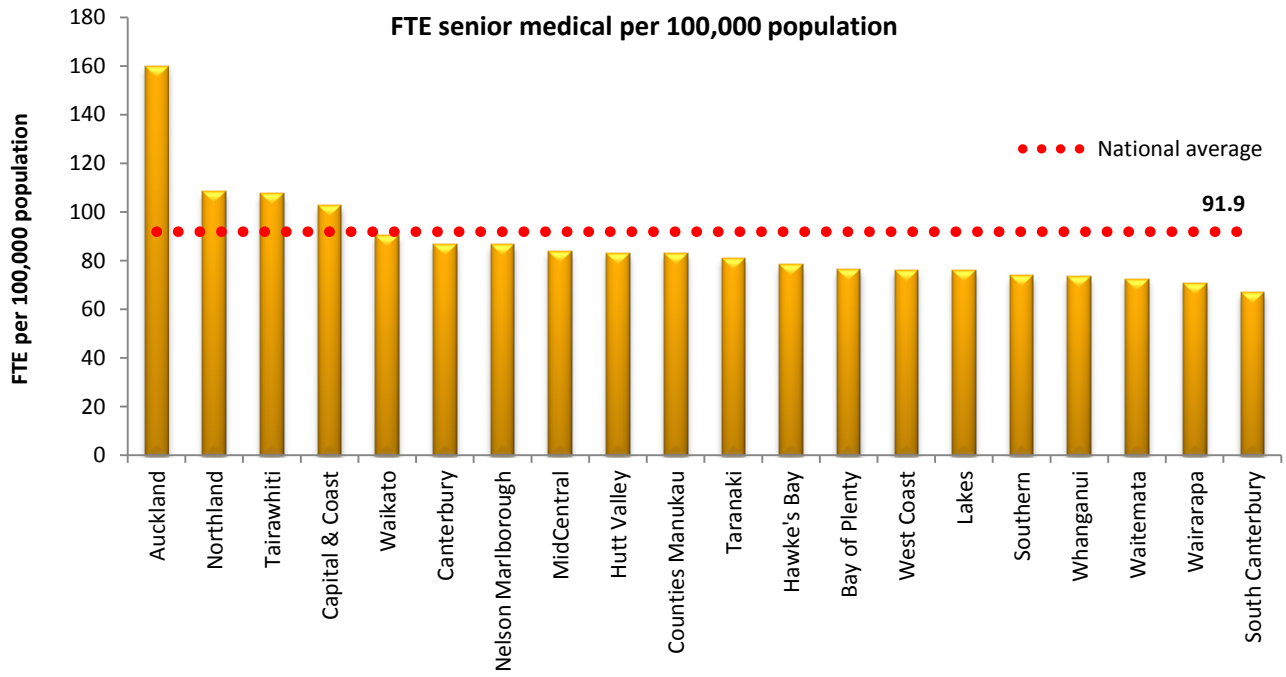
Figure 23: Population density of Junior Medical by DHB

FTE junior medical per 100,000 population

National average

84.1
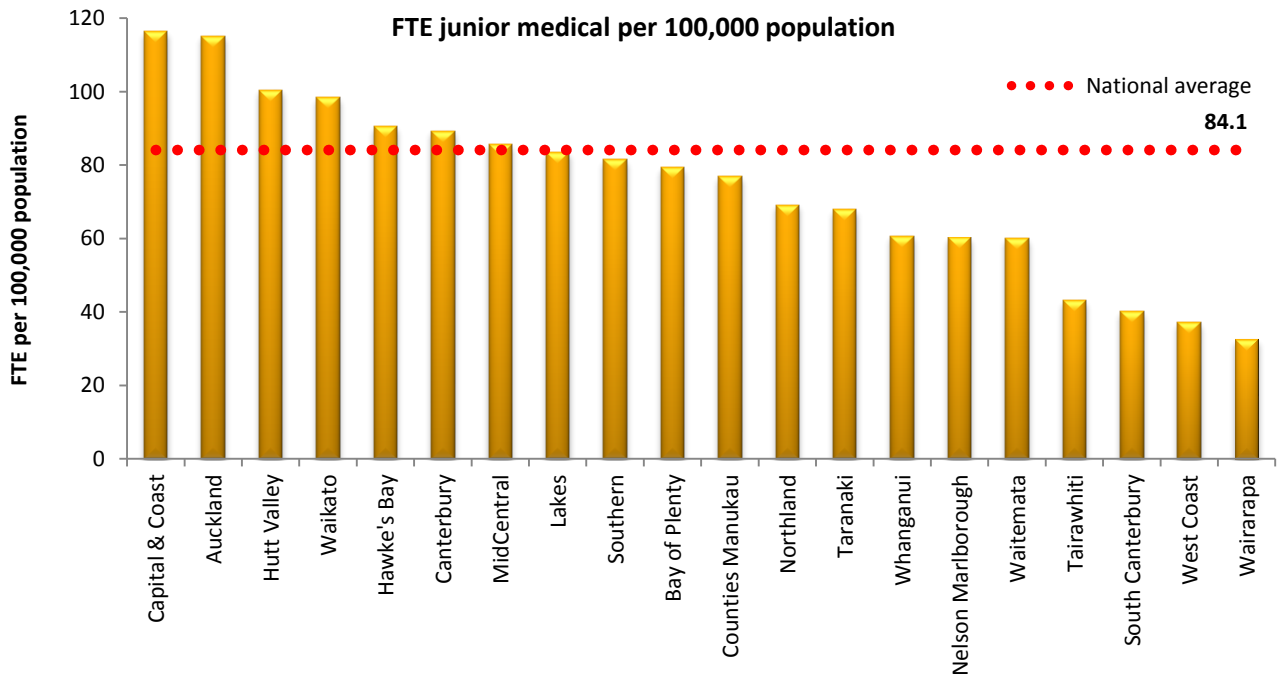
Figure 24: Population density of Midwives by DHB
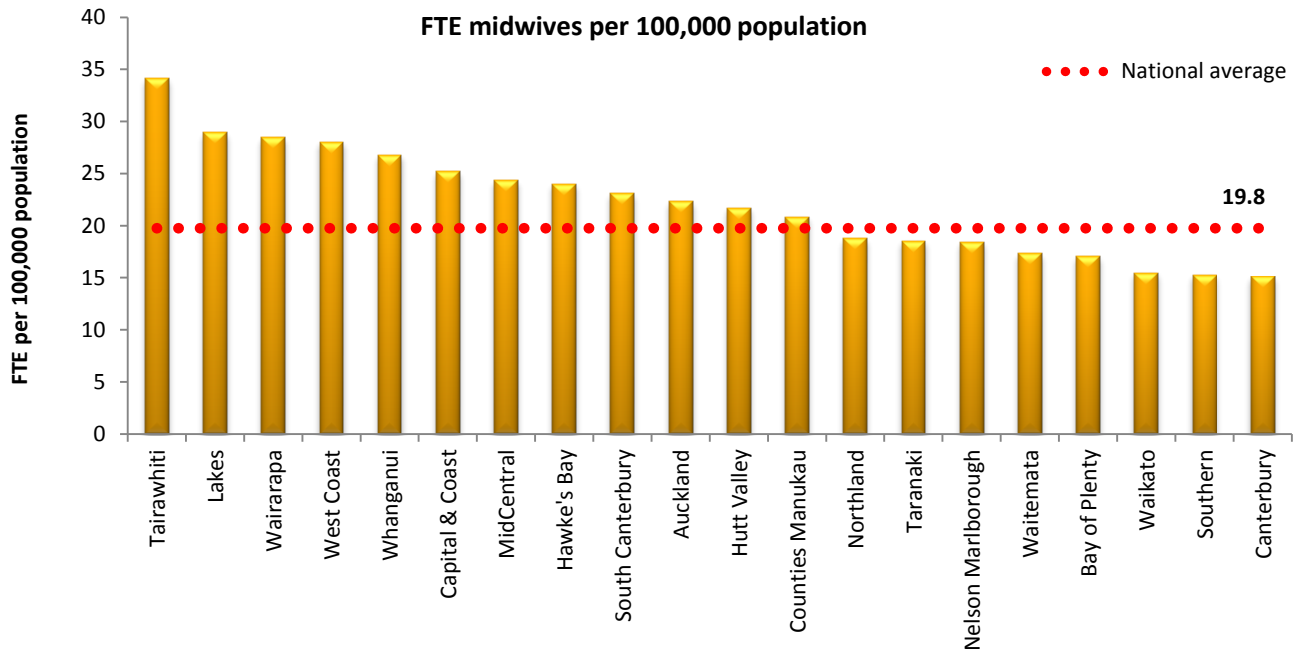

FTE midwives per 100,000 population

National average

19.8

Figure 25: Population density of all DHB staff by DHB

FTE all staff per 100,000 population

National average

1245.4