Prepared by:

TAS
Kahui tuitui tangata

DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT

1 OCTOBER TO 31 DECEMBER 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 October 2018 to 31 December 2018 and is a snapshot in time at 31 December 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 Officer (SMO)
- Resident Medical Officer (RMO)
- Nursing
- Midwifery
- Allied & scientific (the amalgamation of Allied Health and Technical and Scientific)
- Care and support
- Corporate and other

Data Extraction

Important notes about the data extraction:

- The data extract used for this report covers the period July 2018 to December 2018 inclusive and is a snapshot taken by the DHBs on 31 December 2018.

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

Disclaimer

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

Contact: HWIP@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 December 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. 'Other' include those on maternity / parental leave, and those who have not been reported with an employment status code.

Total employees 73,280 **57,464 female** **15,816 male**	**61,877 FTE** **47,358 FTE* females** **14,519 FTE* males**	**Largest occupation group:** **Nurses – 27,765** **Smallest occupation group:** **Midwives – 1,440**
DHB employee average age 45.4 years **45.5 years for females** **45.0 years for males**	**Oldest male occupation group:** **SMO (mean age 51.4 years)** **Youngest male occupation group:** **RMO (mean age 30.5 years)**	**Oldest female occupation groups:** **Corporate and other (mean age 50.1 years)** **Youngest female occupation group:** **RMO (mean age 30.4 years)**
Mean FTE rate 0.84 **Mean FTE rate for females 0.82** **Mean FTE rate for males 0.92**	**Longest Length of Service occupation group** **SMO (mean 10.1 years)** **Shortest Length of Service occupation group** **RMO (mean 1.1 years)**	**Employee reported ethnicities:** **Other** – 69.0%** **Asian – 19.4%** **Māori – 7.4%** **Pacific – 4.2%**

*   Contracted FTE (using a 2086 hour annual contract):
        N.B. local (DHB and / or occupation) interpretations of a 'full time equivalent' can vary. For example; a sonographer may be classed as 1.0 full time employee in one DHB where they are contracted to work 35 hours per week, whereas another sonographer in a different DHB may be classed as 1.0 full time employee where they are contracted to work 40 hours per week. The Contracted FTE definition used here allows a comparison to be made across DHBs and occupations through a universal standard.

**   To allow direct comparisons with reported ethnicity data from Statistics New Zealand, we have amalgamated ethnicities not associated with Asian, Māori or Pacific into the group 'Other'.

DISTRIBUTION OF EMPLOYEES

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

Figure 1: Count of employees
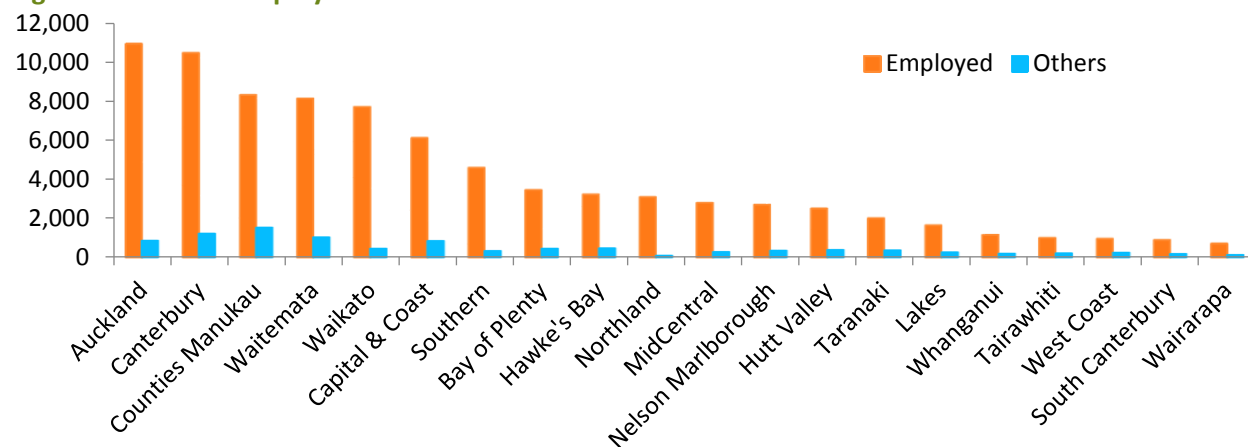
Table 1: Distribution of employment types

DHB	Employed	Others	Total	Proportion of DHB workforce
Auckland	10,100	818	10,918	13.2%
Canterbury	9,299	1,165	10,464	12.7%
Counties Manukau	6,865	1,467	8,332	10.1%
Waitemata	7,159	977	8,136	9.9%
Waikato	7,293	422	7,715	9.3%
Capital & Coast	5,326	809	6,135	7.4%
Southern	4,269	307	4,576	5.5%
Bay of Plenty	3,036	427	3,463	4.2%
Hawke's Bay	2,787	442	3,229	3.9%
Northland	3,028	72	3,100	3.8%
MidCentral	2,563	252	2,815	3.4%
Nelson Marlborough	2,372	333	2,705	3.3%
Hutt Valley	2,168	353	2,521	3.1%
Taranaki	1,679	337	2,016	2.4%
Lakes	1,411	246	1,657	2.0%
Whanganui	993	178	1,171	1.4%
Tairawhiti	823	195	1,018	1.2%
West Coast	745	215	960	1.2%
South Canterbury	754	154	908	1.1%
Wairarapa	610	113	723	0.9%
Grand Total	**73,280**	**9,282**	**82,562**	**100.0%**

INCLUSIONS AND EXCLUSIONS

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

Inclusions:

- Only employees who have positive contract hours have been included; those with zero contract hours or are classified as on maternity / parental leave have been excluded.
- Charts containing 'Age' include all employees who have a calculated age between 15 and 99.

Exclusions:

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

Calculations:

- Percentage sick leave hours is calculated by dividing the number of sick leave hours taken by the contracted hours (excluding those with zero contracted hours). It excludes staff who started or terminated employment in the reporting quarter.
- Annual leave balance to entitlement calculations exclude staff who started or terminated employment in the reporting quarter.
- Because of the way start dates are reported the length of service is most likely to be based on the length of service within the DHB rather than the length of service of the reported position.

HEADCOUNT AND FTE BY DHB AND OCCUPATION GROUP

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

Table 2: Headcount and FTE by DHB and occupation group

DHB	Nursing			Corporate and other			Allied & scientific			Care and support			SMO			RMO			Midwifery		
	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE
Auckland	3646	3113.7	0.85	1869	1654.2	0.89	2019	1769.5	0.88	697	650.9	0.93	1077	882.5	0.82	638	631.8	0.99	154	118.3	0.77
Bay of Plenty	1218	930.0	0.76	628	555.8	0.88	436	367.7	0.84	299	244.9	0.82	217	178.9	0.82	182	180.4	0.99	56	38.8	0.69
Canterbury	3541	2915.7	0.82	1928	1688.2	0.88	1576	1299.6	0.82	981	775.6	0.79	595	502.6	0.84	541	532.6	0.98	137	90.2	0.66
Capital & Coast	2182	1756.3	0.80	1092	994.6	0.91	732	630.5	0.86	397	352.3	0.89	412	326.5	0.79	399	382.1	0.96	112	78.6	0.70
Counties Manukau	2563	2190.5	0.85	1365	1185.7	0.87	1067	929.3	0.87	724	636.1	0.88	549	464.2	0.85	417	411.3	0.99	180	134.0	0.74
Hawke's Bay	1086	774.9	0.71	580	497.8	0.86	462	371.8	0.80	286	227.3	0.79	149	129.0	0.87	154	153.6	1.00	70	41.0	0.59
Hutt Valley	725	590.7	0.81	475	430.7	0.91	341	277.3	0.81	247	216.8	0.88	160	124.3	0.78	173	164.0	0.95	47	32.1	0.68
Lakes	566	447.0	0.79	312	280.7	0.90	192	163.3	0.85	121	99.4	0.82	95	85.6	0.90	91	91.0	1.00	34	25.4	0.75
MidCentral	1034	847.7	0.82	612	562.6	0.92	353	312.9	0.89	175	141.3	0.81	162	144.8	0.89	172	171.4	1.00	55	37.7	0.69
Nelson Marlborough	761	554.7	0.73	539	448.6	0.83	316	234.9	0.74	464	339.9	0.73	152	124.4	0.82	97	96.8	1.00	43	28.4	0.66
Northland	1174	902.1	0.77	575	495.9	0.86	470	392.4	0.83	420	316.9	0.75	198	190.9	0.96	126	125.1	0.99	65	40.6	0.62
South Canterbury	319	245.5	0.77	161	124.4	0.77	92	71.9	0.78	75	53.2	0.71	64	48.1	0.75	25	24.9	1.00	18	13.3	0.74
Southern	1774	1411.3	0.80	845	746.8	0.88	637	540.3	0.85	347	271.4	0.78	301	239.4	0.80	291	280.5	0.96	74	51.2	0.69
Tairawhiti	323	255.1	0.79	197	177.1	0.90	112	91.3	0.82	83	67.6	0.81	60	52.7	0.88	25	24.6	0.98	23	17.7	0.77
Taranaki	615	470.7	0.77	394	350.9	0.89	239	194.1	0.81	184	154.2	0.84	126	105.0	0.83	93	92.7	1.00	28	21.2	0.76
Waikato	2752	2309.8	0.84	1591	1417.0	0.89	1087	952.8	0.88	858	726.0	0.85	432	383.7	0.89	454	446.7	0.98	119	87.5	0.73
Wairarapa	272	191.6	0.70	137	109.3	0.80	71	50.9	0.72	64	43.3	0.68	33	29.1	0.88	14	13.4	0.96	19	13.0	0.68
Waitemata	2492	2111.5	0.85	1302	1135.8	0.87	1331	1093.5	0.82	980	874.0	0.89	509	433.1	0.85	375	367.1	0.98	170	114.3	0.67
West Coast	306	258.3	0.84	165	140.3	0.85	76	69.3	0.91	142	98.4	0.69	32	27.5	0.86	11	10.5	0.95	13	8.5	0.65
Whanganui	416	338.9	0.81	212	185.6	0.88	129	107.6	0.83	116	94.6	0.82	56	51.2	0.91	41	40.8	1.00	23	17.6	0.77
Grand Total	**27765**	**22615.9**	**0.81**	**14979**	**13182.0**	**0.88**	**11738**	**9920.8**	**0.85**	**7660**	**6384.0**	**0.83**	**5379**	**4523.5**	**0.84**	**4319**	**4241.2**	**0.98**	**1440**	**1009.4**	**0.70**

TABLES AND CHARTS BY OCCUPATION GROUPING

HEADCOUNT AND FTE BY OCCUPATION GROUPING AND GENDER

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

Figure 2: Occupation group headcount and mean FTE by gender
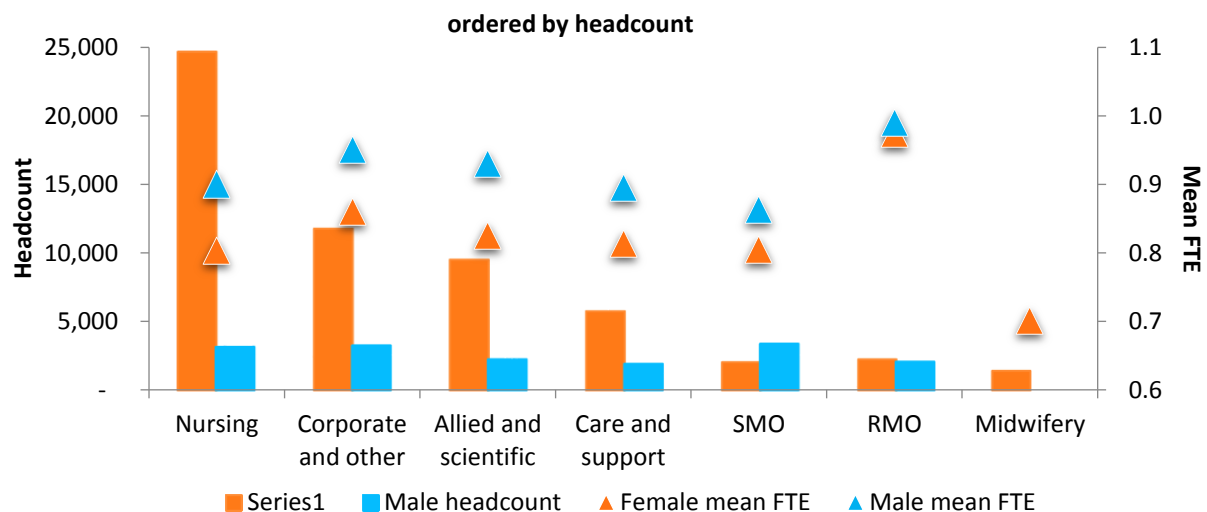
Table 3: Occupation group headcount and mean FTE by gender

Occupation group	Female		Male		Total	
	Headcount	Mean FTE	Headcount	Mean FTE	Headcount	Mean FTE
Nursing	24,654	0.80	3,111	0.90	27,765	0.81
Corporate and other	11,772	0.86	3,207	0.95	14,979	0.88
Allied and scientific	9,513	0.83	2,225	0.93	11,738	0.85
Care and support	5,768	0.81	1,892	0.90	7,660	0.83
SMO	2,063	0.80	3,316	0.86	5,379	0.84
RMO	>2,254	0.97	>2,057	0.99	4,319	0.98
Midwifery	>1,432	0.70	**	**	1,440	0.70
Grand Total	**57,464**	**0.82**	**15,816**	**0.92**	**73,280**	**0.84**

** Data suppressed (headcounts less than 5)

HEADCOUNT BY OCCUPATION GROUP AND ETHNICITY

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

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

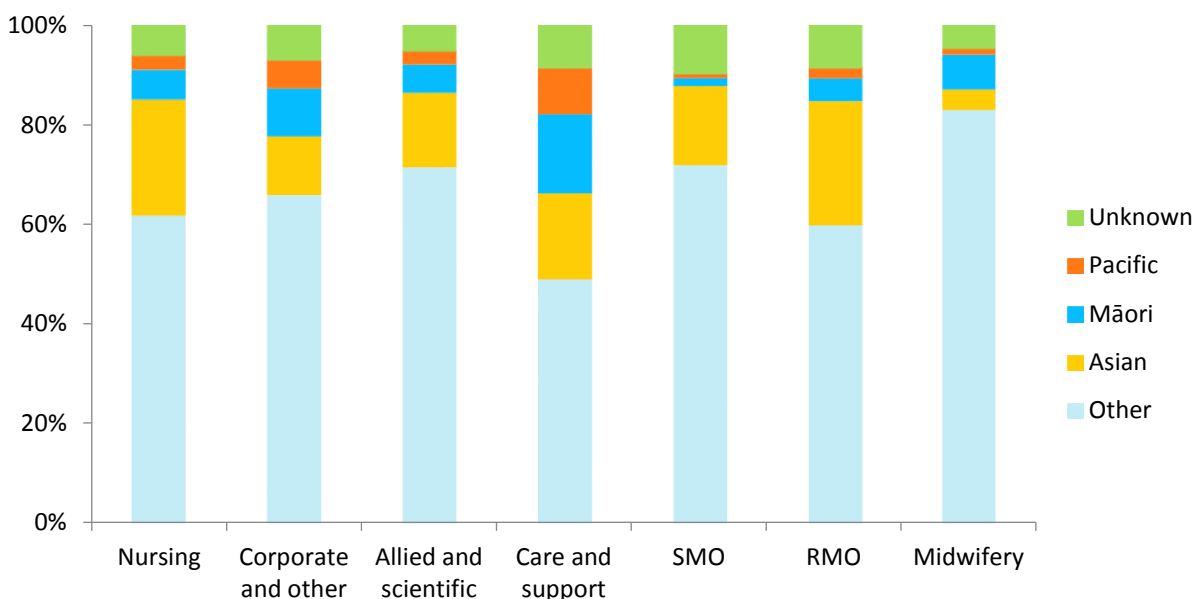**Figure 3: Proportion of ethnicities by occupation group**

Table 4: Count and proportion of ethnicities by occupation group

Occupation group	Other*		Asian		Māori		Pacific		Unknown		Total
Nursing	17,157	61.8%	6,442	23.2%	1,662	6.0%	832	3.0%	1,672	6.0%	27,765
Corporate and other	9,873	65.9%	1,764	11.8%	1,444	9.6%	863	5.8%	1,035	6.9%	14,979
Allied and scientific	8,385	71.4%	1,751	14.9%	668	5.7%	322	2.7%	612	5.2%	11,738
Care and support	3,766	49.2%	1,315	17.2%	1,218	15.9%	712	9.3%	649	8.5%	7,660
SMO	3,865	71.9%	854	15.9%	91	1.7%	50	0.9%	519	9.6%	5,379
RMO	2,588	59.9%	1,069	24.8%	201	4.7%	96	2.2%	365	8.5%	4,319
Midwifery	1,194	82.9%	59	4.1%	100	6.9%	20	1.4%	67	4.7%	1,440
Grand Total	46,828	63.9%	13,254	18.1%	5,384	7.3%	2,895	4.0%	4,919	6.7%	73,280

* '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 68,361 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 2018.

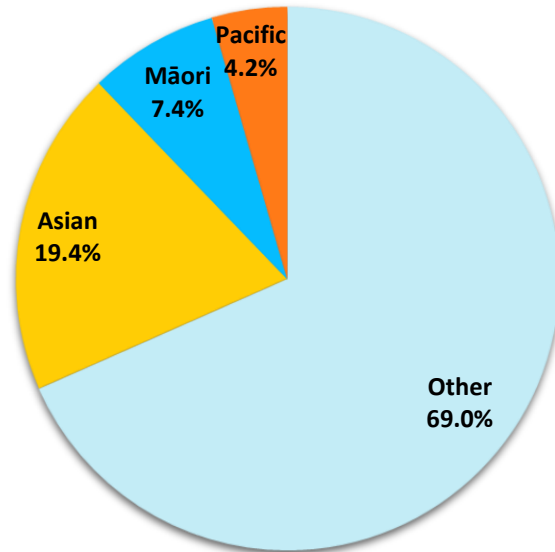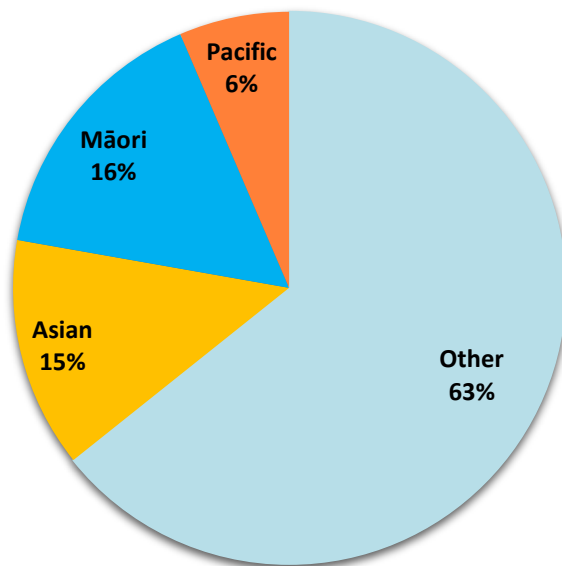**Figure 4: Proportion of identifiable ethnicities for all DHB employees**

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

AGES AND LENGTH OF SERVICE

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

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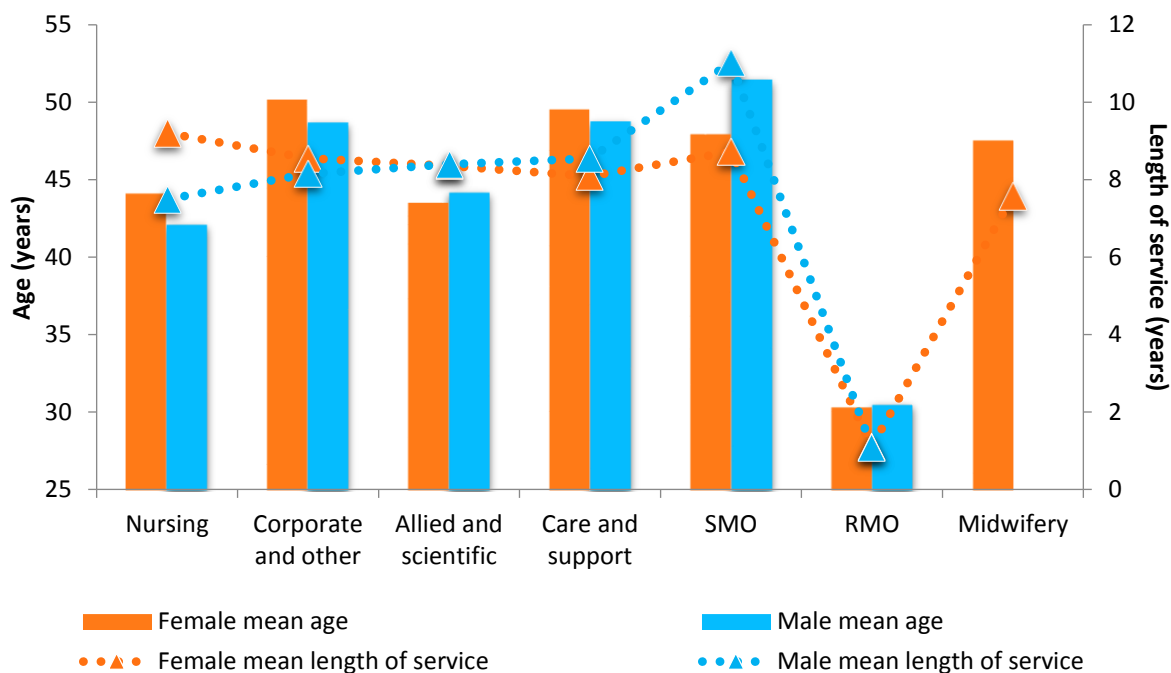
The following table gives the actual figures behind the chart above.

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

Occupation group	Female		Male		Total	
	Mean length of service	Mean age	Mean length of service	Mean age	Mean length of service	Mean age
Nursing	9.2	44.1	7.5	42.1	9.0	43.9
Corporate and other	8.6	50.1	8.1	48.7	8.5	49.8
Allied and scientific	8.4	43.5	8.4	44.2	8.4	43.6
Care and support	8.1	49.5	8.5	48.8	8.2	49.3
SMO	8.7	47.9	11.0	51.4	10.1	50.1
RMO	1.1	30.4	1.1	30.5	1.1	30.5
Midwifery	7.6	47.5	9.0	46.8	7.6	47.5
Grand Total	**8.4**	**45.5**	**7.8**	**45.0**	**8.3**	**45.4**

TABLES AND CHARTS BY DHB

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

COUNT OF EMPLOYEES AND MEAN FTE BY GENDER AND DHB

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

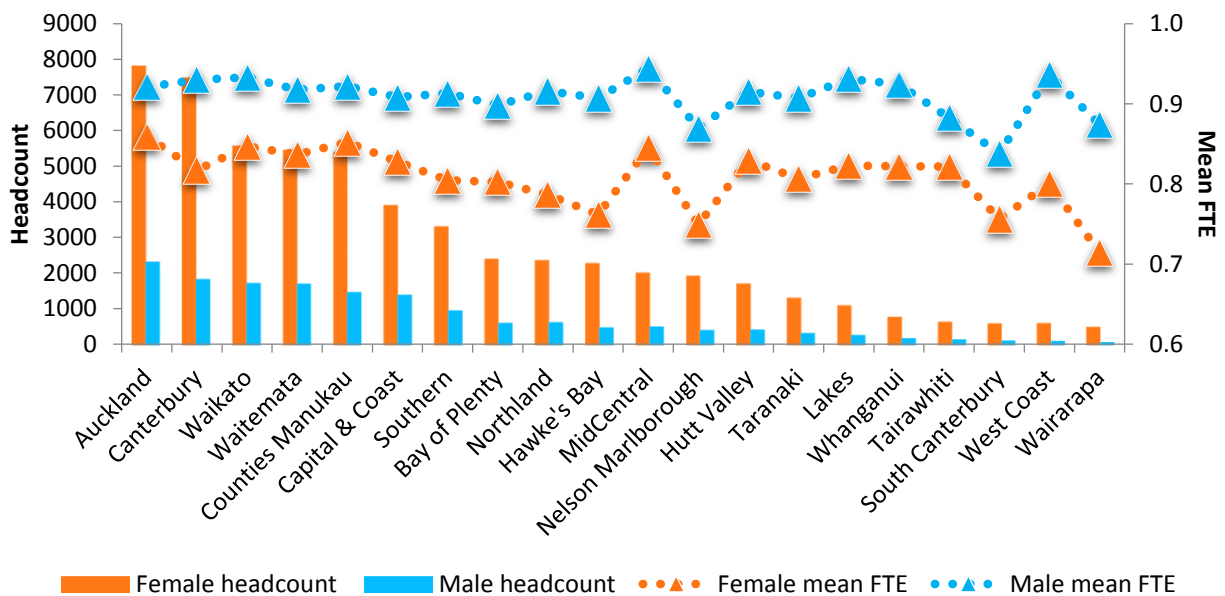**Figure 7: Headcount and mean FTE by gender and DHB**

Table 6: Headcount and mean FTE by gender and DHB

		Auckland	Canterbury	Waikato	Waitemata	Counties Manukau	Capital & Coast	Southern	Bay of Plenty	Northland	Hawke's Bay	MidCentral	Nelson Marlborough	Hutt Valley	Taranaki	Lakes	Whanganui	Tairawhiti	South Canterbury	West Coast	Wairarapa
Female	Headcount	7802	7477	5580	5460	5398	3930	3310	2413	2390	2293	2040	1953	1733	1337	1124	799	664	619	624	518
	Mean FTE	0.86	0.82	0.85	0.84	0.85	0.83	0.81	0.80	0.79	0.76	0.85	0.75	0.83	0.81	0.82	0.82	0.82	0.76	0.80	0.71
Male	Headcount	2298	1822	1713	1699	1467	1396	959	623	638	494	523	419	435	342	287	194	159	135	121	92
	Mean FTE	0.92	0.93	0.93	0.92	0.92	0.91	0.91	0.90	0.92	0.91	0.94	0.87	0.92	0.91	0.93	0.92	0.88	0.84	0.94	0.87
Total	Headcount	10100	9299	7293	7159	6865	5326	4269	3036	3028	2787	2563	2372	2168	1679	1411	993	823	754	745	610
	Mean FTE	0.87	0.84	0.87	0.86	0.87	0.85	0.83	0.82	0.81	0.79	0.87	0.77	0.85	0.83	0.85	0.84	0.83	0.77	0.82	0.74

MEAN AGES AND MEAN LENGTH OF SERVICE BY DHB AND GENDER

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

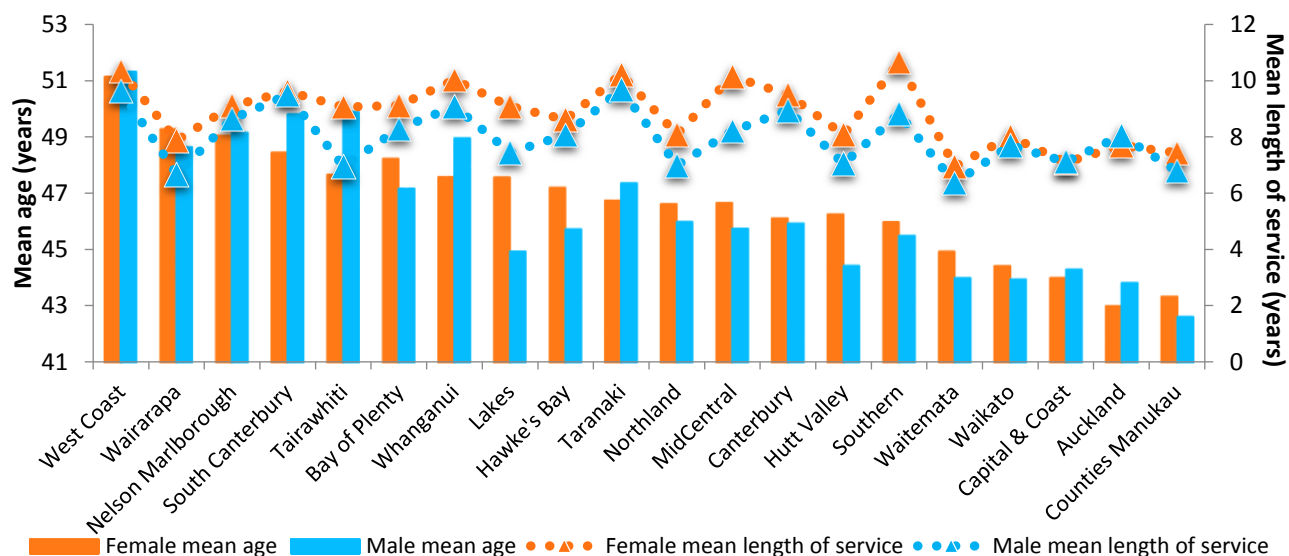**Figure 8: Mean ages and mean length of service by DHB and gender**

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

DHB	Female mean length of service	Female mean age	Male mean length of service	Male mean age	All staff mean length of service	All staff mean age
West Coast	10.4	51.1	9.7	51.4	10.3	51.2
Wairarapa	7.9	49.3	6.7	48.6	7.7	49.2
Nelson Marlborough	9.1	49.1	8.6	49.1	9.0	49.1
South Canterbury	9.6	48.4	9.5	49.8	9.6	48.7
Tairawhiti	9.1	47.7	7.0	49.9	8.7	48.1
Bay of Plenty	9.1	48.2	8.3	47.1	8.9	48.0
Whanganui	10.0	47.6	9.1	48.9	9.8	47.8
Lakes	9.1	47.6	7.5	44.9	8.7	47.0
Hawke's Bay	8.6	47.2	8.1	45.7	8.5	46.9
Taranaki	10.2	46.7	9.7	47.3	10.1	46.9
Northland	8.1	46.6	7.0	46.0	7.9	46.5
MidCentral	10.2	46.7	8.2	45.8	9.8	46.5
Canterbury	9.5	46.1	9.0	45.9	9.4	46.1
Hutt Valley	8.1	46.3	7.0	44.4	7.9	45.9
Southern	10.7	46.0	8.8	45.5	10.2	45.9
Waitemata	7.0	44.9	6.4	44.0	6.8	44.7
Waikato	8.0	44.4	7.7	44.0	7.9	44.3
Capital & Coast	7.1	44.0	7.1	44.3	7.1	44.1
Auckland	7.7	43.0	8.1	43.8	7.8	43.2
Counties Manukau	7.4	43.3	6.8	42.6	7.3	43.2
Grand Total	**8.4**	**45.5**	**7.8**	**45.0**	**8.3**	**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.

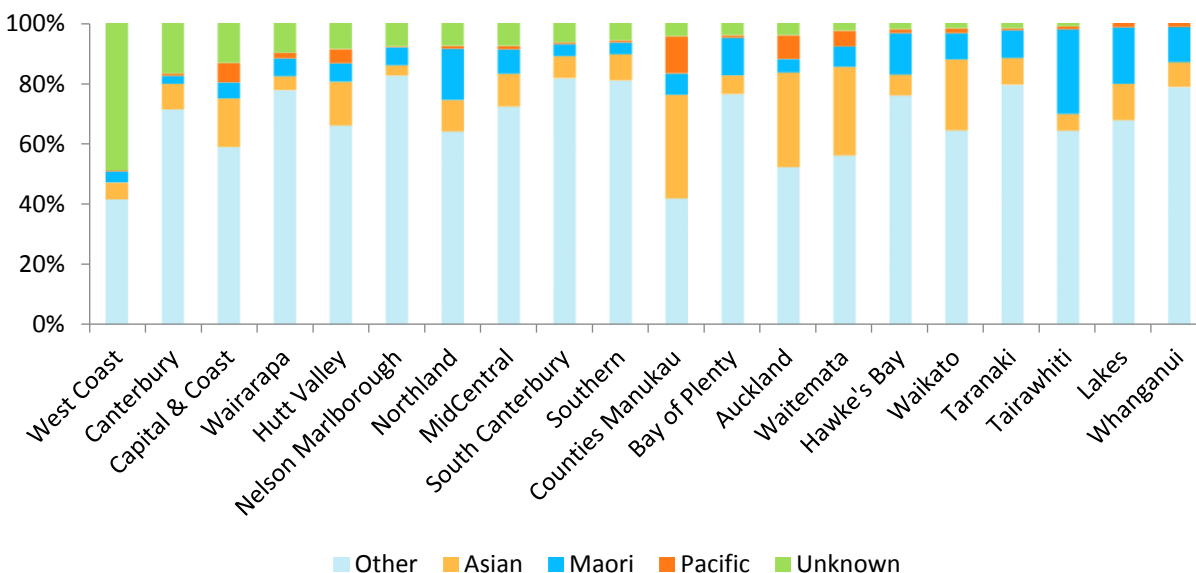**Figure 9: Proportion of reported ethnicities by DHB**

Table 8: Distribution of reported ethnicities by DHB

DHB	Other*	Asian	Māori	Pacific	Unknown	Total
West Coast	312	42	>23	**	361	745
Canterbury	6,645	787	257	77	1,533	9,299
Capital & Coast	3,144	862	279	346	695	5,326
Wairarapa	474	29	36	12	59	610
Hutt Valley	1,433	315	133	103	184	2,168
Nelson Marlborough	1,958	83	141	8	182	2,372
Northland	1,944	316	512	31	225	3,028
MidCentral	1,856	277	210	30	190	2,563
South Canterbury	616	55	>27	**	47	754
Southern	3,457	373	165	35	239	4,269
Counties Manukau	2,901	2,343	477	852	292	6,865
Bay of Plenty	2,322	190	378	25	121	3,036
Auckland	5,305	3,144	458	791	402	10,100
Waitemata	4,033	2,086	491	371	178	7,159
Hawke's Bay	2,119	192	385	39	52	2,787
Waikato	4,704	1,710	642	114	123	7,293
Taranaki	1,335	150	155	11	28	1,679
Tairawhiti	530	47	229	9	8	823
Lakes	958	170	263	20	0	1,411
Whanganui	782	83	115	13	0	993
Grand Total	**46,828**	**13,254**	**5,384**	**2,895**	**4,919**	**73,280**

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

 ** Data suppressed (headcounts less than 5)

ANALYSIS BY DHB AND OCCUPATION GROUP

LENGTH OF SERVICE BY OCCUPATION GROUP AND DHB

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

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

DHB	Nursing	Corporate and other	Allied and scientific	Care and support	SMO	RMO	Midwifery	All staff
West Coast	11.1	9.0	10.9	10.9	7.7	0.7	10.7	10.3
Southern	11.8	10.4	9.9	9.1	10.9	2.1	10.1	10.2
Taranaki	11.4	10.8	10.1	10.3	8.0	1.2	9.6	10.1
Whanganui	10.2	9.9	11.4	10.0	9.7	0.8	10.1	9.8
MidCentral	11.3	9.5	9.4	9.6	10.8	1.3	10.2	9.8
South Canterbury	10.3	8.8	10.6	11.3	8.6	0.7	7.5	9.6
Canterbury	10.6	8.6	9.6	9.5	11.2	1.9	8.9	9.4
Nelson Marlborough	10.3	7.6	8.7	10.2	10.3	1.0	6.9	9.0
Bay of Plenty	10.2	9.4	8.4	7.6	10.2	1.1	8.7	8.9
Lakes	9.7	9.2	9.6	9.1	7.7	1.0	5.9	8.7
Tairawhiti	10.8	7.3	7.8	8.1	8.4	0.6	6.3	8.7
Hawke's Bay	9.1	8.8	8.9	8.5	10.3	1.3	7.3	8.5
Waikato	8.6	8.6	8.0	6.8	10.4	1.7	6.2	7.9
Hutt Valley	9.2	8.0	7.7	8.6	9.0	0.5	7.2	7.9
Northland	8.5	9.1	8.5	5.7	8.4	0.9	7.4	7.9
Auckland	7.8	8.0	8.0	8.7	10.6	0.5	7.6	7.8
Wairarapa	8.7	6.5	8.0	7.6	8.8	0.3	4.6	7.7
Counties Manukau	7.5	8.3	6.7	7.6	10.1	0.4	6.9	7.3
Capital & Coast	7.3	7.2	7.0	8.8	10.1	0.9	7.1	7.1
Waitemata	6.8	7.0	7.6	6.3	9.8	0.5	6.7	6.8
Grand Total	**9.0**	**8.5**	**8.4**	**8.2**	**10.1**	**1.1**	**7.6**	**8.3**

ANALYSIS BY SICK LEAVE & ANNUAL LEAVE

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

The following radar chart shows the dispersion of sick leave by DHB by looking at the average 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 Southern shows that 50% of staff took 46 hours or less sick leave per FTE, and that 75% of staff took 106.7 hours or less of sick leave per FTE.

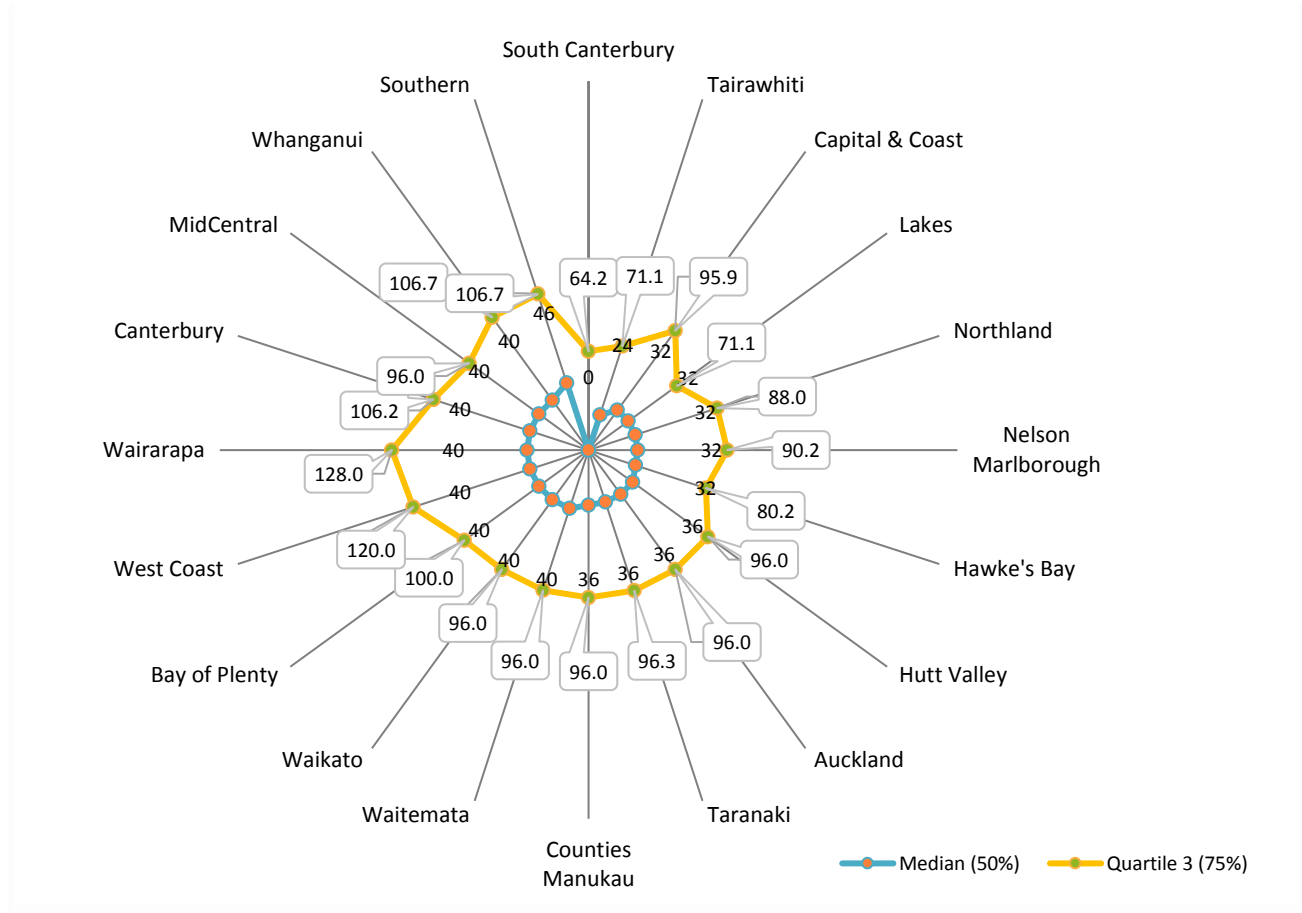**Figure 10: Average annualized sick leave hours per FTE by DHB**

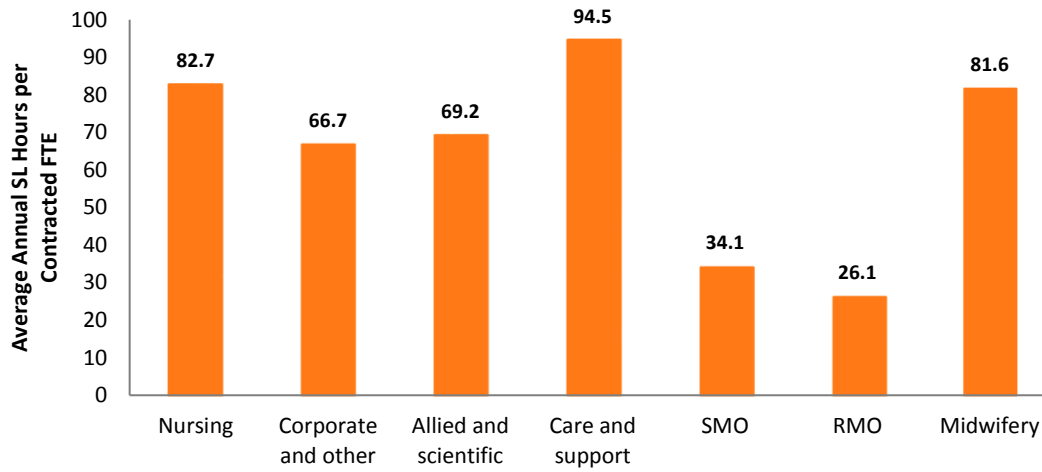**Figure 11: Average annual sick leave hours per FTE by occupational group**

Occupational group	Average Annual SL Hours per Contracted FTE
Nursing	82.7
Corporate and other	66.7
Allied and scientific	69.2
Care and support	94.5
SMO	34.1
RMO	26.1
Midwifery	81.6

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

Age group	F	M
<25	72.6	55.1
25-34	74.5	54.1
35-44	78.2	52.9
45-54	70.5	54.9
55-64	77.1	65.9
>=65	84.9	77.3
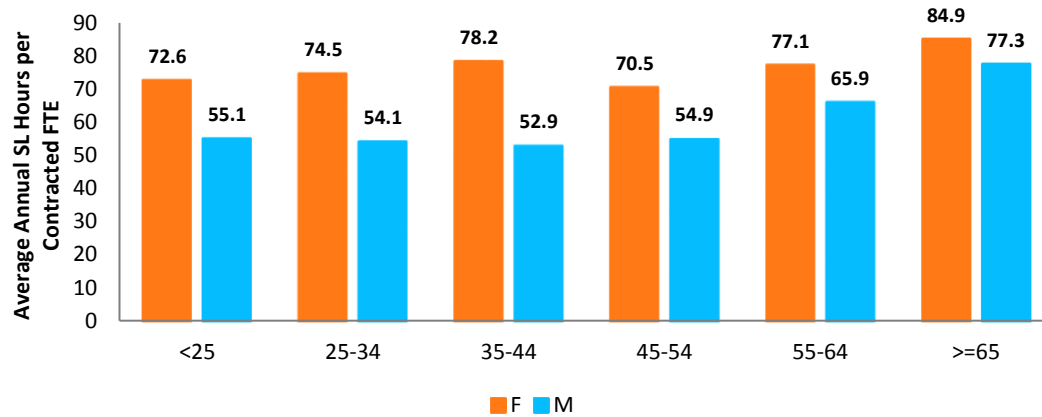
Figure 13: Average annual sick leave hours per FTE by ethnicity by gender

Ethnicity	F	M
Other	71.7	51.4
Asian	79.3	62.6
Maori	81.8	77.4
Pacific	95.8	88.6
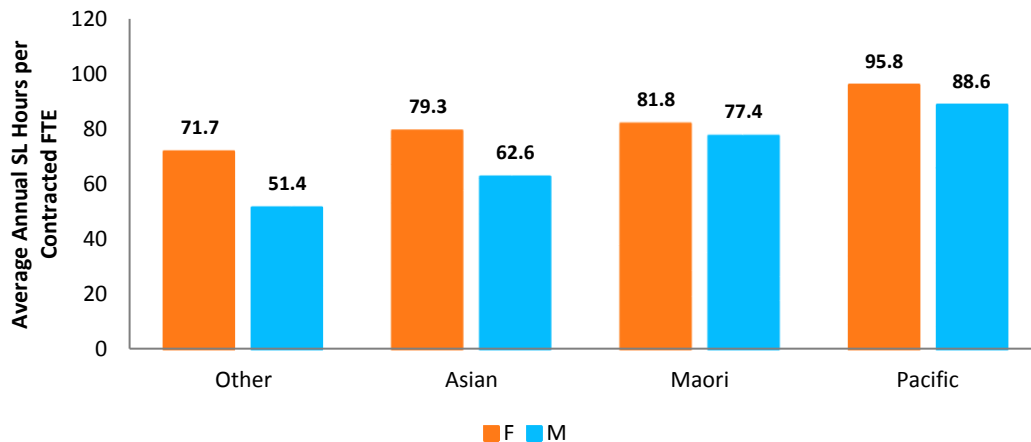
RATIO OF ANNUAL LEAVE BALANCE AND ANNUAL LEAVE ENTITLEMENT BY DHB, OCCUPATION GROUP AND ETHNICITY BY GENDER

In the first chart, the bars represent the ratios of annual leave balance to annual leave entitlement and the red dotted line represents the national average. For example, a value of 100% means that on average the DHB employees have an annual leave balance equal to their annual leave entitlement. The chart shows that for the first six 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
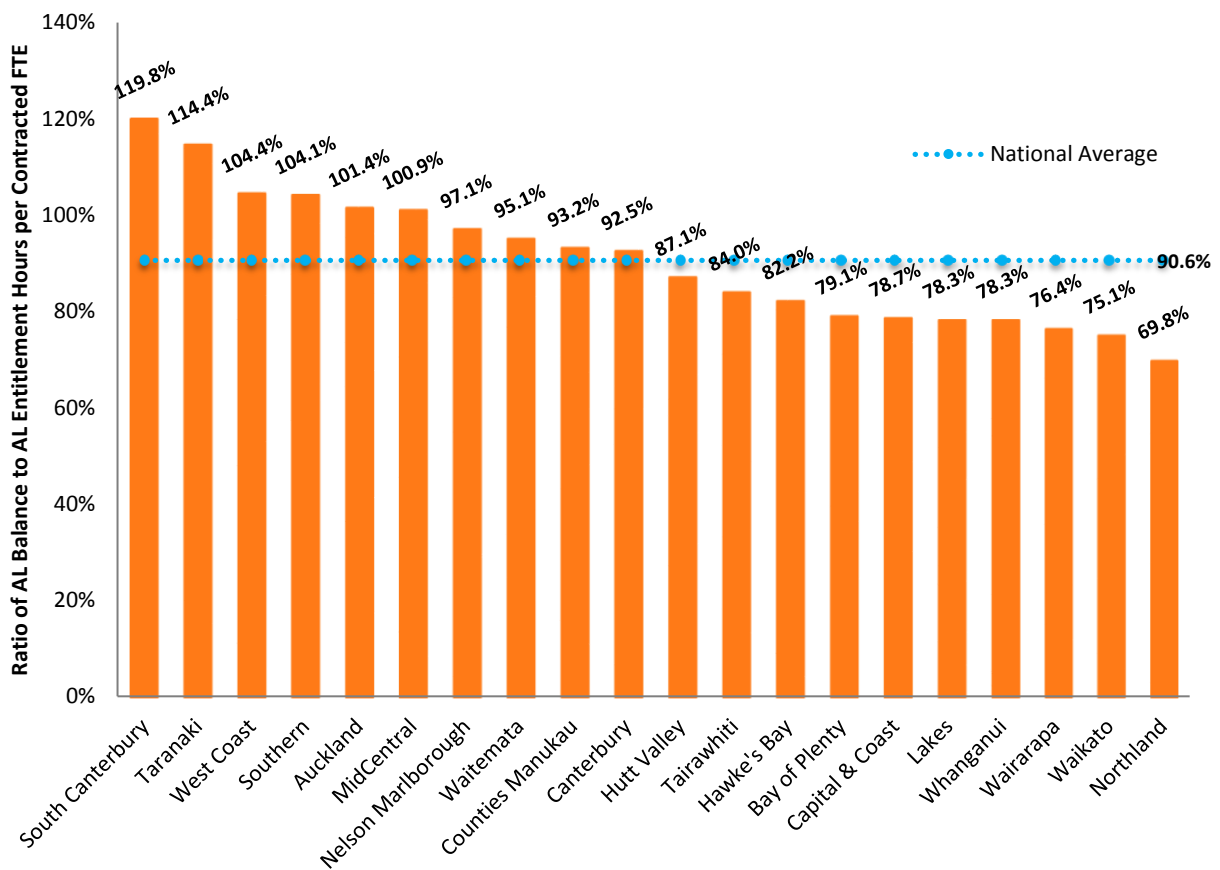
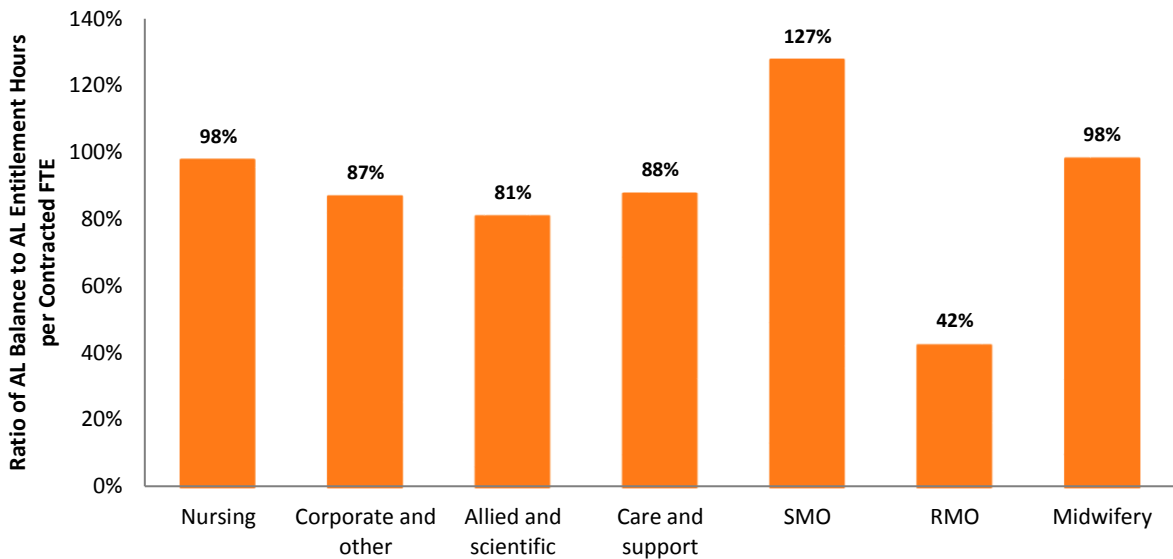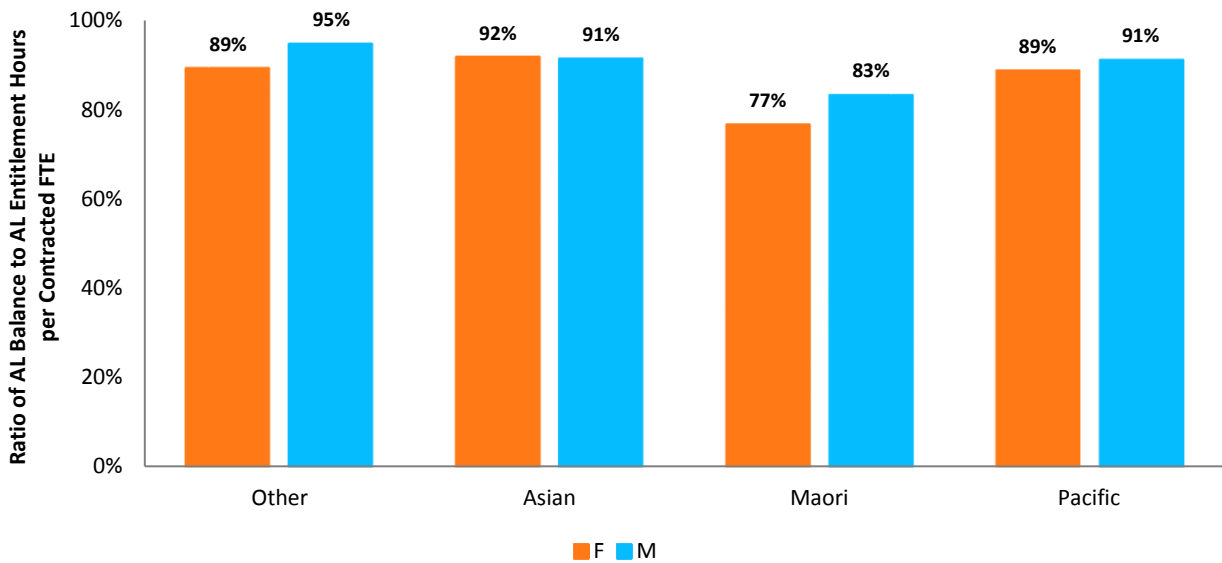**Figure 15: Ratio of annual leave balance to annual leave entitlement hours per FTE by occupational group**

Ratio of AL Balance to AL Entitlement Hours per Contracted FTE

- Nursing: 98%
- Corporate and other: 87%
- Allied and scientific: 81%
- Care and support: 88%
- SMO: 127%
- RMO: 42%
- Midwifery: 98%

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

Ratio of AL Balance to AL Entitlement Hours per Contracted FTE

- Other: F 89%, M 95%
- Asian: F 92%, M 91%
- Maori: F 77%, M 83%
- Pacific: F 89%, M 91%

F ■ M

ANALYSIS BY POPULATION

DISTRIBUTION OF OVERALL DHB OCCUPATION BY AGE, WITH NATIONAL EMPLOYEE DATA

The following chart shows the distribution of ages of DHB employees (histogram with light orange outline). The staggered dark orange line is the distribution of all New Zealand employees for the December 2018 quarter as reported in the Household Labour Force Survey (HLFS) by Statistics New Zealand.

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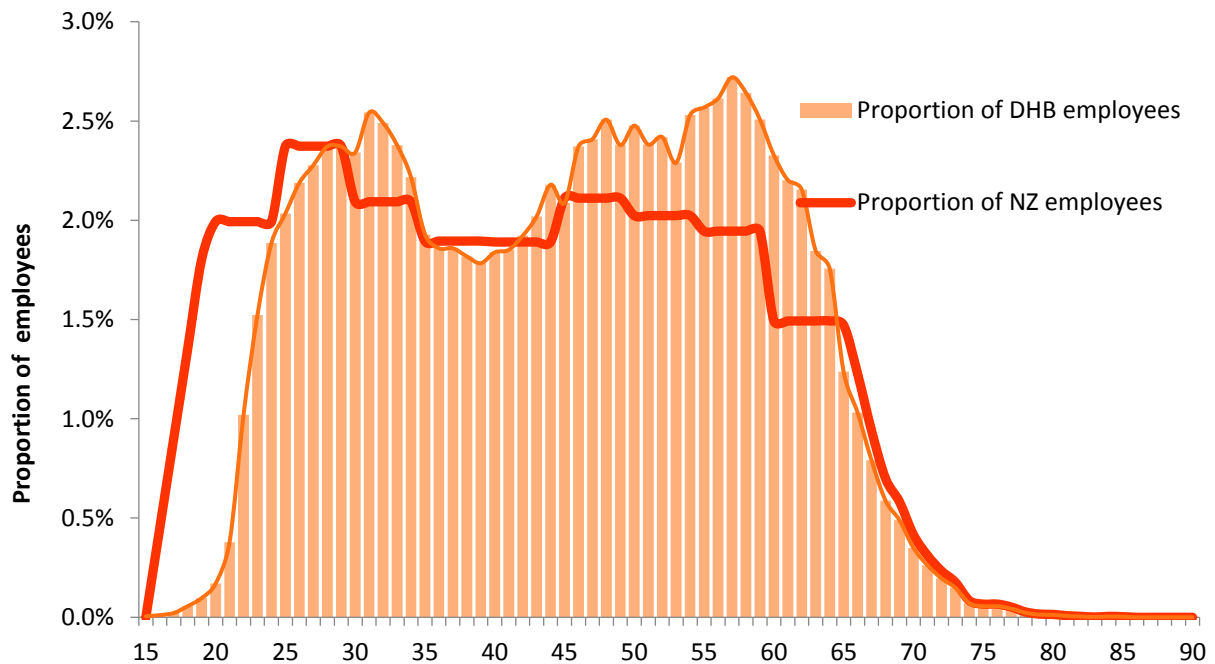
ETHNIC REPRESENTATION OF WORKFORCE TO RESIDENT POPULATION

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

The calculations look at the percentage of staff with a known ethnicity and compare it to the percentage of DHB residents with a known ethnicity. This latter data has been interpolated from data produced by Statistics New Zealand, and is representative for the quarter being reported on.

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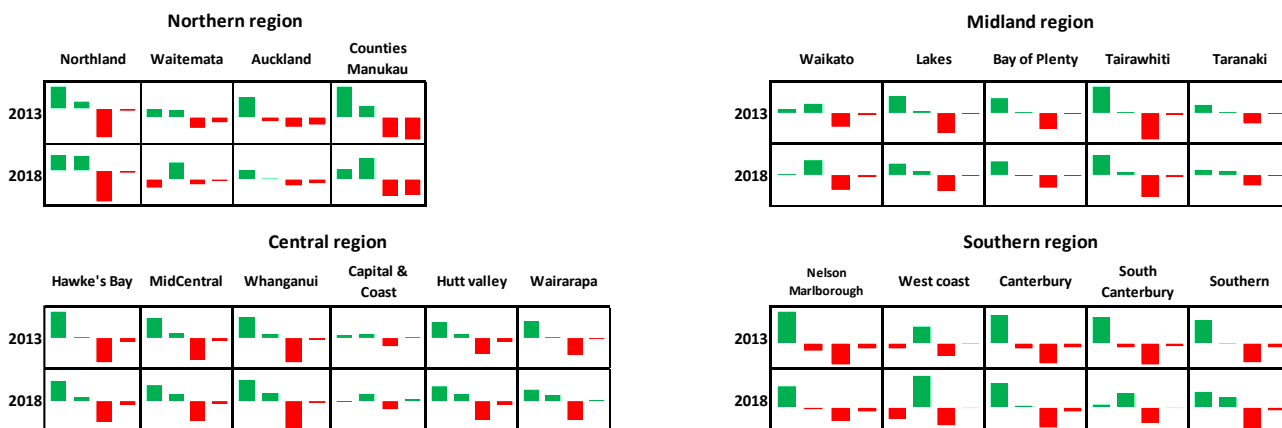
Note: The four bars are ordered as: Other, Asian, Māori and Pacific

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 four 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.

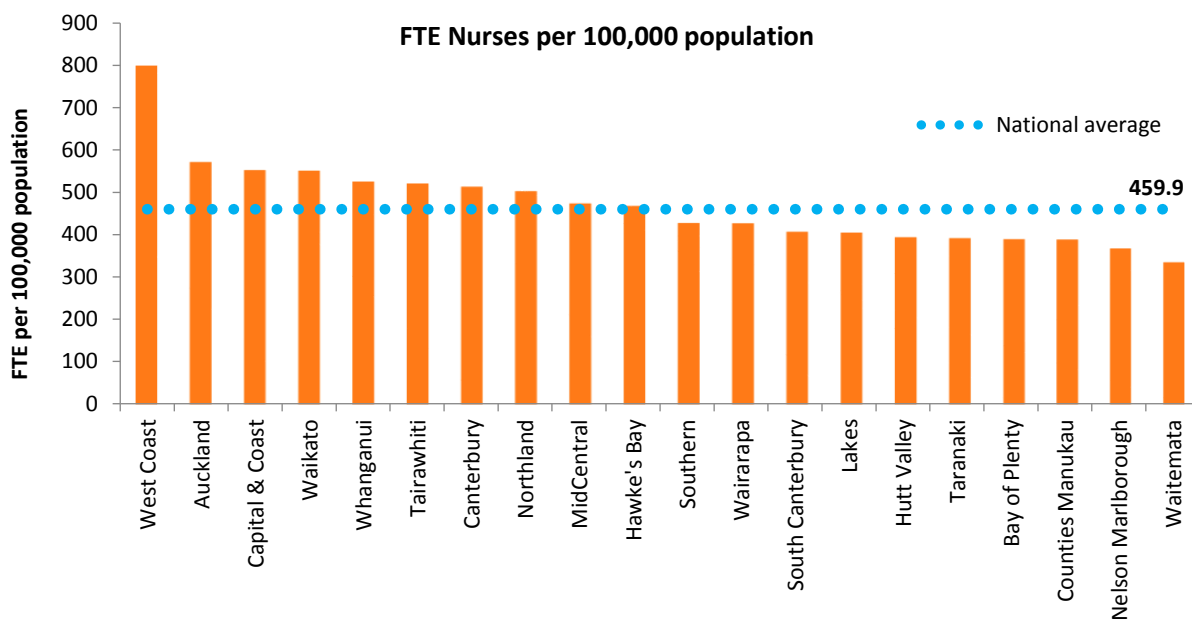**Figure 18: Population density of Nurses by DHB**

FTE Nurses per 100,000 population

National average: 459.9

Figure 19: Population density of Corporate & Other by DHB

FTE Corporate & Other per 100,000 population

National average: 268.1
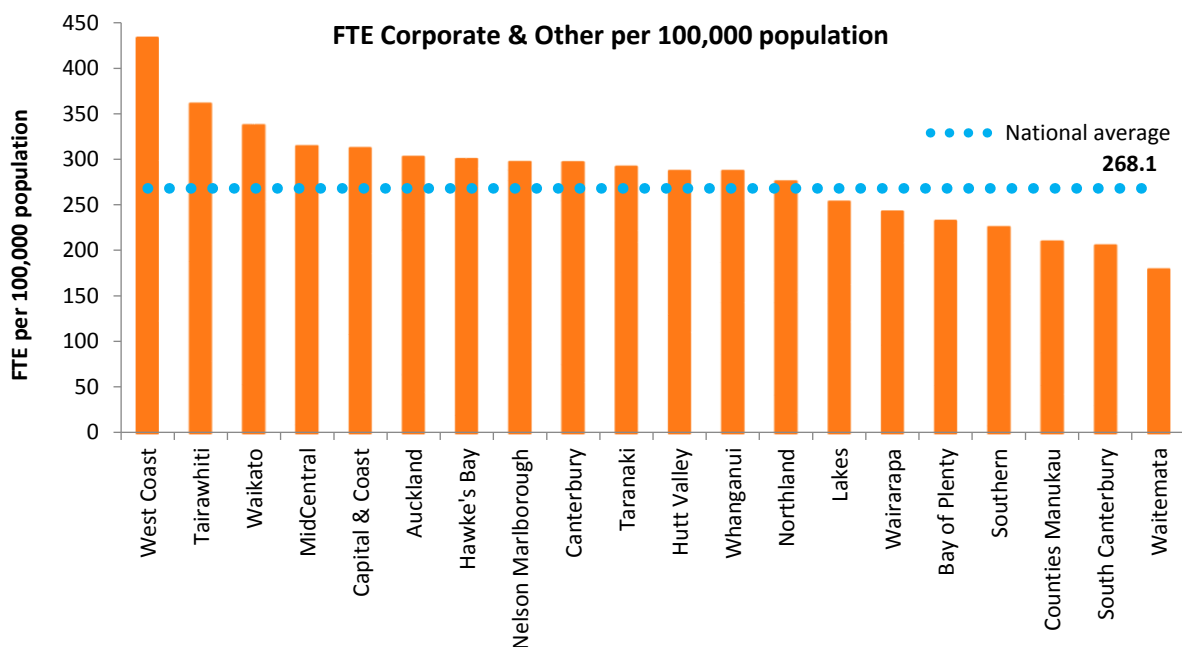
Figure 20: Population density of Allied & Scientific by DHB

FTE Allied & Scientific per 100,000 population
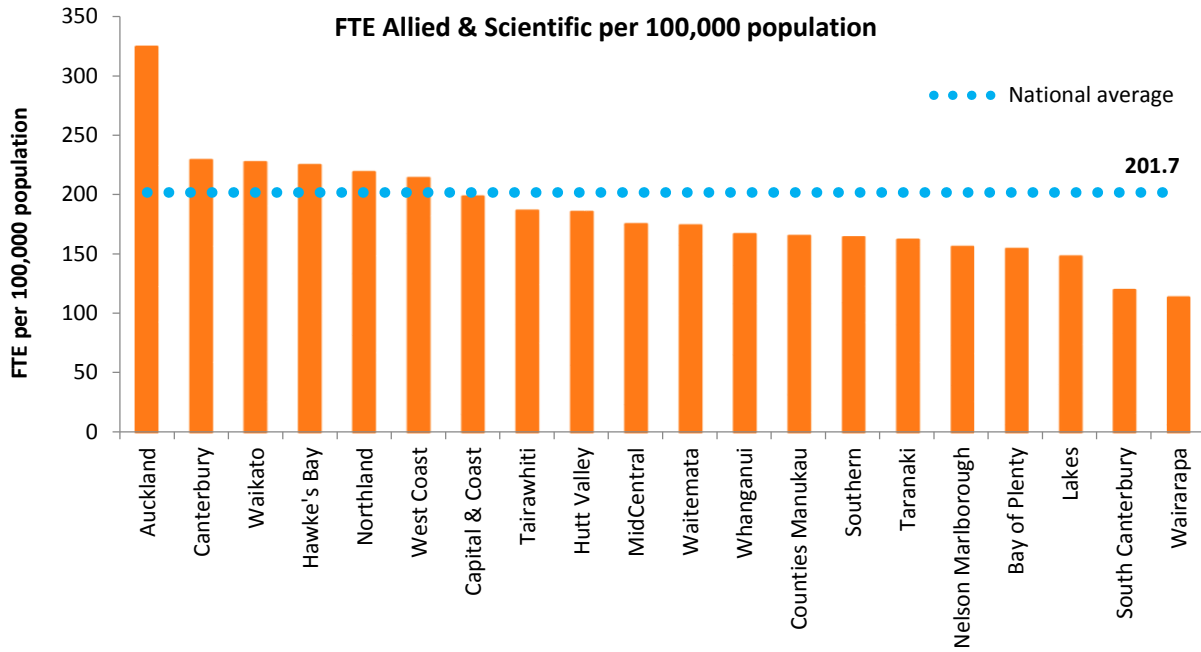
Figure 21: Population density of Care & Support by DHB

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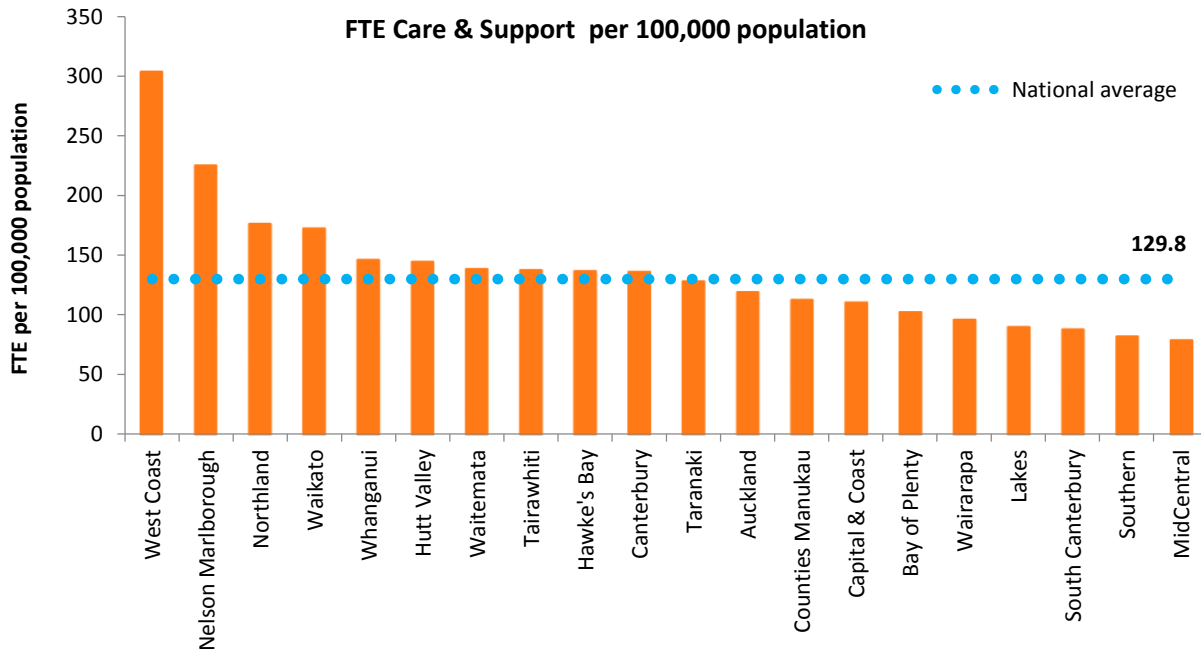
Figure 22: Population density of Senior Medical Officer (SMO) by DHB

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

- - - National average

92.0
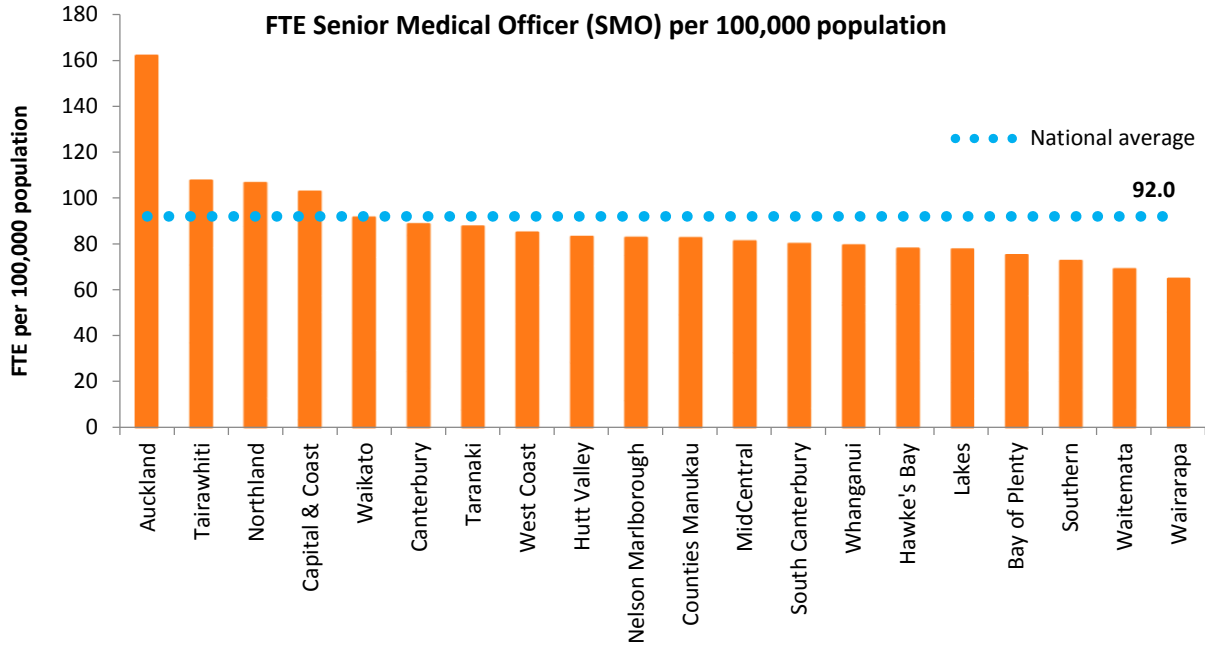
Figure 23: Population density of Resident Medical Officer (RMO) by DHB

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

- - - National average

86.3
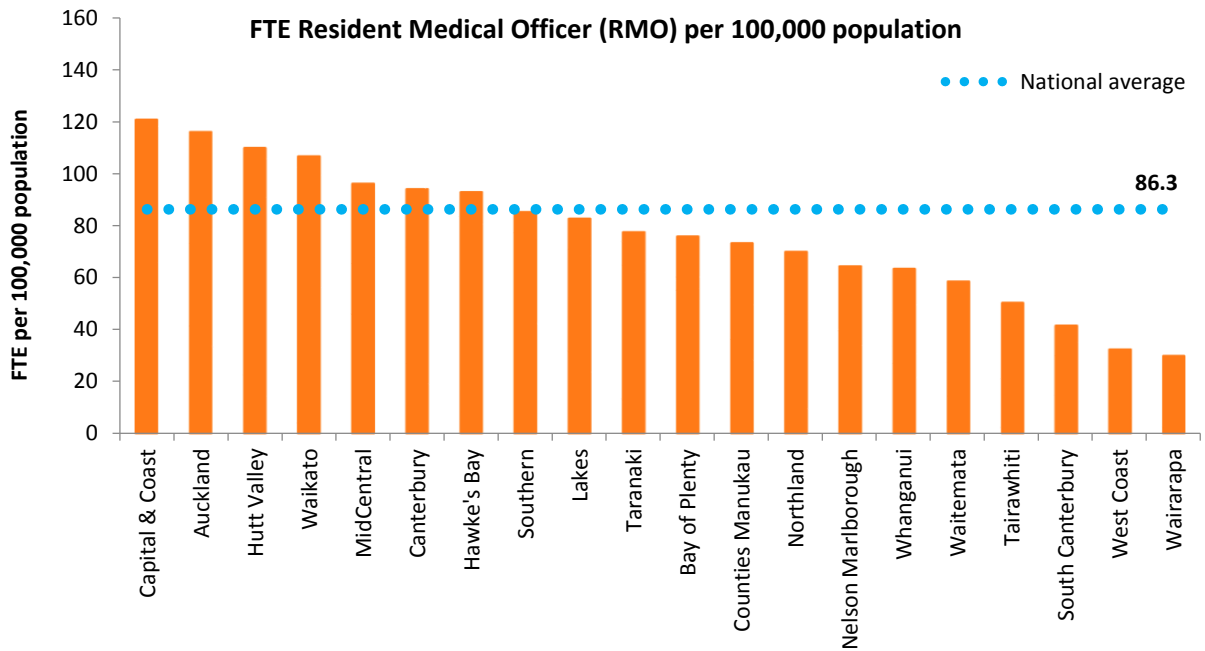
Figure 24: Population density of Midwives by DHB
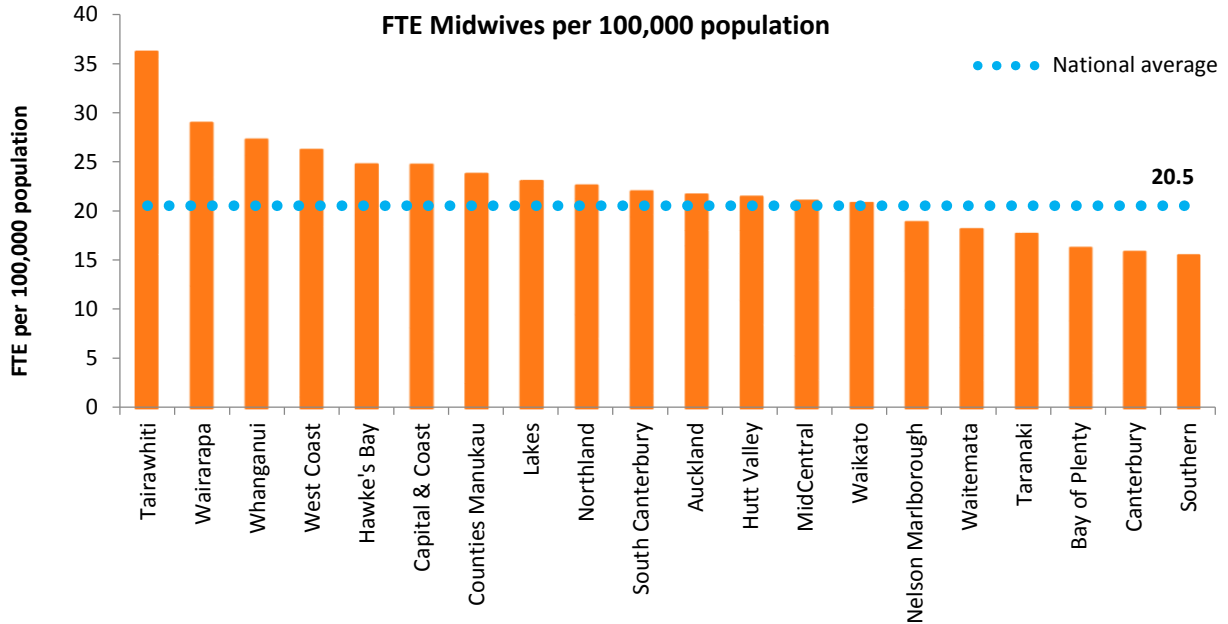

FTE Midwives per 100,000 population

● ● ● National average

20.5

Figure 25: Population density of all DHB staff by DHB

FTE All Staff per 100,000 population

● ● ● National average

1258.3