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# DISTRICT HEALTH BOARD EMPLOYED WORKFORCE QUARTERLY REPORT

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1 OCTOBER TO 31 DECEMBER 2010

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## HEALTH WORKFORCE INFORMATION

District Health Boards New Zealand, through the Health Workforce Information team, supports the District Health Boards (DHBs) through providing base information on DHB employee demographics and competencies, describing the current composition of the DHB workforce. Regular reports are produced based on a quarterly collection of data from the DHBs. District Health Board employee data has been collected on a quarterly basis since mid 2006 with a continued focus on improving data quality.

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## PURPOSE OF THE REPORT

This report covers all DHB employees for the period 1 October 2010 to 31 December 2010 and is a snapshot in time as at 31 December 2010. 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 / charts on the demographics of the DHB workforce aligned to the six occupational groupings. These groupings are:

- Senior and Junior Medical
- Nursing
- Midwifery
- Allied & Scientific (the amalgamation of Allied Health and Technical and Scientific)
- Care and Support
- Corporate and Other

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## DATA EXTRACTION

Important notes about the data extraction:

- The data extract used for this report covers the period October 2010 to December 2010 inclusive and is a snapshot taken by the DHBs on 31 December 2010
- Otago DHB and Southland DHB are now reported as Southern DHB
- The protocol used for grouping the occupations is similar to that used in previous reports with the following exceptions:

DHBNZ are presently consulting on a review to the grouping protocol which is anticipated to reflect groups more accurately. This report has adopted some of those measures including amalgamating Allied Health with Technical and Scientific to create Allied and scientific and splitting medical into Junior and Senior medical.

- While every effort has been made to ensure the report is conceptually and factually 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.
- It is expected that the data quality will continue to improve as the Health Workforce Information team work closely with the DHBs to help manage and improve the data submitted.

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Data source: DHB Workforce Information, held by DHBNZ

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# OVERVIEW

## DHB WORKFORCE AT A GLANCE

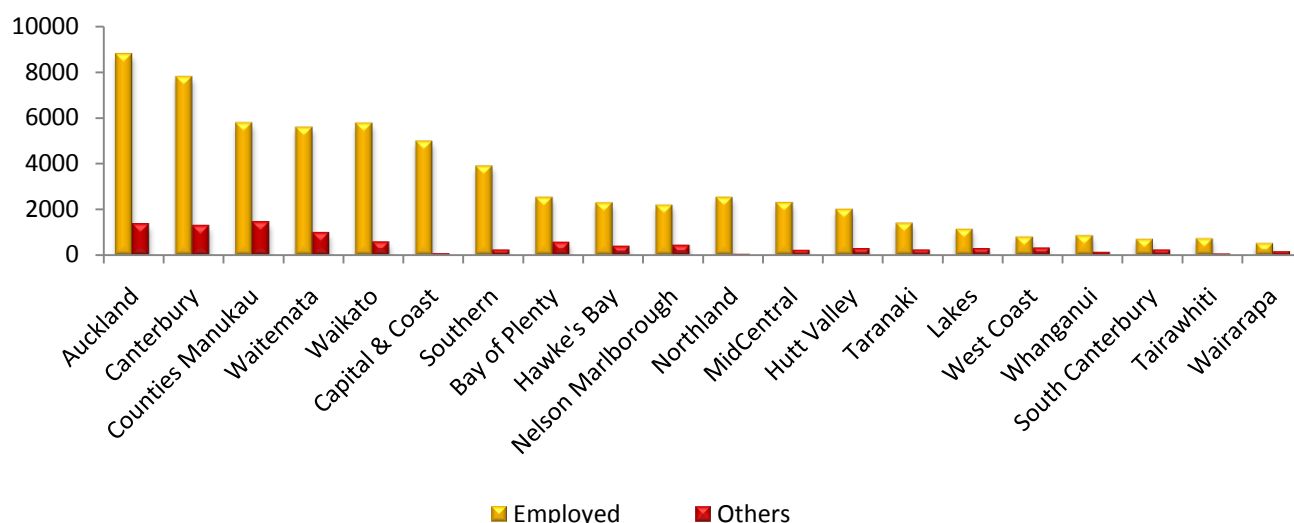
For data to 31 December 2010, only those employed with contracted hours greater than zero are included in the analysis except for the tables and charts that explicitly report on 'Other' employees on page 5.

<b>Total employees 62,509</b> <b>49,367 female</b> <b>13,142 male</b>	<b>51,907 FTE</b> <b>12,007 FTE males</b> <b>39,900 FTE females</b>	<b>Largest occupation group:</b> <b>Nurses – 23,575</b> <b>Smallest occupation group:</b> <b>Midwives – 1,278</b>
<b>DHB employee average age 44.9 years</b> <b>44.9 years for females</b> <b>44.9 years for males</b>	<b>Oldest male occupation group:</b> <b>Senior medical (mean age 49.7 years)</b> <b>Youngest male occupation group:</b> <b>Junior medical (mean age 31.2 years)</b>	<b>Oldest female occupation group:</b> <b>Care and support (mean age 48.7 years)</b> <b>Youngest female occupation group:</b> <b>Junior medical (mean age 29.6 years)</b>
<b>Mean FTE rate 0.83</b> <b>Mean FTE rate for females 0.81</b> <b>Mean FTE rate for males 0.91</b>	<b>Longest Length of Service occupation group</b> <b>Senior medical (mean 9.2 years)</b> <b>Shortest Length of Service occupation group</b> <b>Junior Medical (mean 1.4 years)</b>	<b>Top three employee ethnicities:</b>  <b>NZ European – 77%</b> <b>Asian – 11%</b> <b>Māori – 8%</b>

## 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' (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
Auckland	8,757	1,320	10,077
Canterbury	7,771	1,250	9,021
Counties Manukau	5,768	1,413	7,181
Waitemata	5,565	961	6,526
Waikato	5,754	567	6,321
Capital & Coast	4,971	72	5,043
Southern	3,894	230	4,124
Bay of Plenty	2,525	557	3,082
Hawke's Bay	2,295	389	2,684
Nelson Marlborough	2,195	432	2,627
Northland	2,531	52	2,583
MidCentral	2,299	221	2,520
Hutt Valley	2,004	283	2,287
Taranaki	1,414	232	1,646
Lakes	1,148	287	1,435
West Coast	805	314	1,119
Whanganui	856	127	983
South Canterbury	701	228	929
Tairāwhiti	730	66	796
Wairarapa	526	166	692
<b>Grand Total</b>	<b>62,509</b>	<b>9,167</b>	<b>71,676</b>

\*Others = maternity/parental leave and those whose data does not match the reporting variable standard format

## 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 all 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)
- Any employee who has an employment end date entered (regardless of the date it refers to) has also been excluded since they left employment before the end of this quarter
- Employees who do not have an employment status code have been excluded
- Charts containing 'length of service', exclude employees who have a length of service less than or equal to zero
- Charts containing 'occupation grouping', exclude employees who do not have a valid CCoA or ANZSCO code
- 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 (FTE, assuming a 2086 hour annual contract) and mean FTE (the average FTE calculation for all employees). Employees who do not have a valid CCoA or ANZSCO code are excluded, as are employees who do not have a contract of more than zero hours.

Table 2: Headcount and FTE by DHB and occupation group

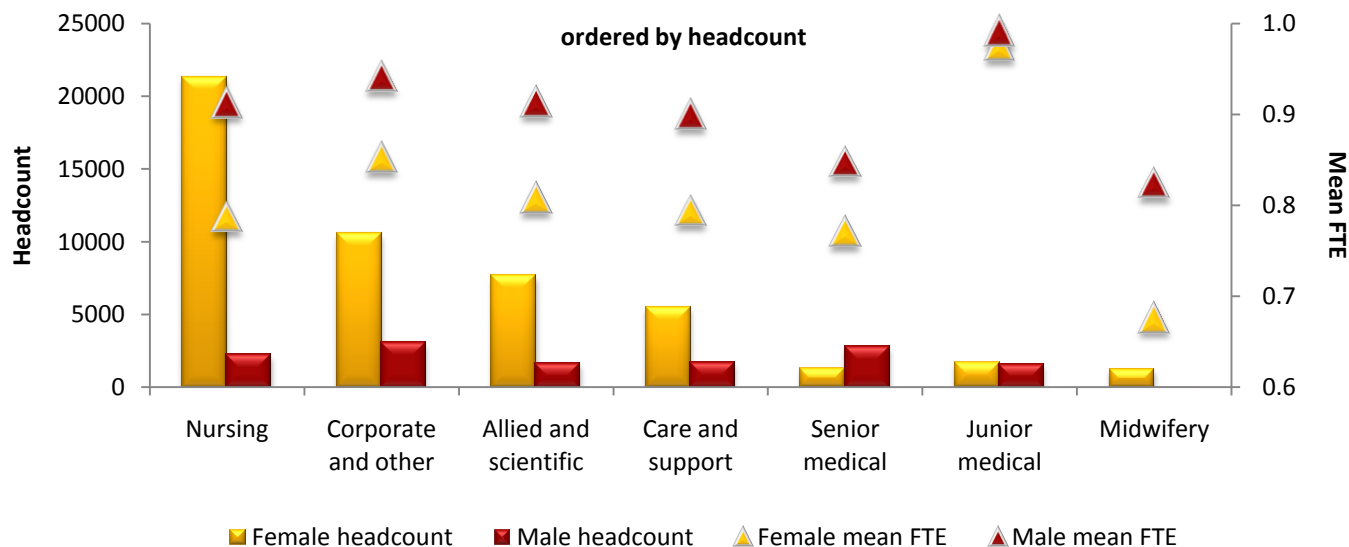
DHB	Nursing			Corporate and other			Allied & scientific			Care and support			Senior medical			Junior medical			Midwifery		
	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE	Head count	FTE	Mean FTE
Auckland	3154	2627	0.83	1702	1525	0.90	1612	1340	0.83	732	671	0.92	800	641	0.80	606	583	0.96	151	111	0.74
Bay of Plenty	1041	831	0.80	543	485	0.89	297	251	0.85	294	248	0.84	167	138	0.83	136	134	0.99	47	32	0.69
Canterbury	2984	2370	0.79	1565	1335	0.85	1256	1020	0.81	937	733	0.78	472	393	0.83	415	409	0.99	142	94	0.66
Capital & Coast	1870	1447	0.77	1047	939	0.90	647	529	0.82	638	500	0.78	304	228	0.75	317	284	0.90	148	94	0.63
Counties Manukau	2177	1840	0.85	1298	1115	0.86	787	676	0.86	604	537	0.89	399	332	0.83	376	365	0.97	125	87	0.70
Hawke's Bay	852	615	0.72	529	454	0.86	323	258	0.80	304	241	0.79	110	88	0.80	119	170	1.43	58	38	0.66
Hutt Valley	669	549	0.82	532	464	0.87	347	280	0.81	174	146	0.84	133	100	0.75	124	122	0.99	25	18	0.72
Lakes	434	354	0.82	299	265	0.88	142	122	0.86	115	96	0.84	70	61	0.88	58	58	1.00	30	23	0.77
MidCentral	896	727	0.81	600	545	0.91	284	242	0.85	205	164	0.80	135	117	0.87	129	128	0.99	50	33	0.66
Nelson Marlborough	718	490	0.68	472	375	0.79	253	178	0.70	491	351	0.71	112	92	0.82	69	62	0.90	51	30	0.59
Northland	968	719	0.74	566	459	0.81	361	289	0.80	344	239	0.70	137	126	0.92	81	81	1.00	74	42	0.57
South Canterbury	313	253	0.81	125	104	0.83	84	64	0.77	75	60	0.80	34	27	0.81	29	28	0.96	18	15	0.83
Southern	1603	1249	0.78	921	807	0.88	543	456	0.84	351	275	0.78	239	189	0.79	182	177	0.97	55	37	0.68
Tairāwhiti	324	243	0.75	170	153	0.90	89	75	0.84	72	64	0.88	60	51	0.85	5	5	0.90	10	7	0.66
Taranaki	536	386	0.72	331	288	0.87	184	150	0.82	196	166	0.85	80	63	0.79	57	57	1.00	30	22	0.73
Waikato	2207	1810	0.82	1358	1223	0.90	781	662	0.85	676	587	0.87	314	275	0.88	325	318	0.98	93	62	0.66
Wairarapa	211	140	0.66	142	111	0.78	59	46	0.77	39	30	0.78	32	26	0.82	8	8	1.00	16	11	0.67
Waitemata	1992	1678	0.84	1015	886	0.87	1074	908	0.85	725	656	0.90	390	326	0.84	251	244	0.97	118	78	0.66
West Coast	293	240	0.82	215	178	0.83	72	62	0.85	176	85	0.48	41	37	0.89	2	2	1.00	6	6	1.00
Whanganui	333	273	0.82	195	173	0.89	106	79	0.75	116	100	0.86	47	41	0.87	28	28	1.00	31	24	0.79
Grand Total	23575	18842	0.80	13625	11886	0.87	9301	7687	0.83	7264	5950	0.82	4076	3353	0.82	3317	3262	0.98	1278	864	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**



Note: 73 entries had no recorded ANZSCO or CCoA code

**Table 3: Occupation group headcount and mean FTE by sex**

Occupation group	Female		Male	
	Headcount	Mean FTE	Headcount	Mean FTE
Nursing	21,328	0.79	2,247	0.91
Corporate and other	10,542	0.85	3,083	0.94
Allied and scientific	7,637	0.81	1,664	0.91
Care and support	5,512	0.79	1,752	0.90
Senior medical	1,312	0.77	2,764	0.85
Junior medical	1,711	0.98	1,606	0.99
Midwifery	1,274	0.68	4	0.82
Grand Total	49,316	0.81	13,120	0.91

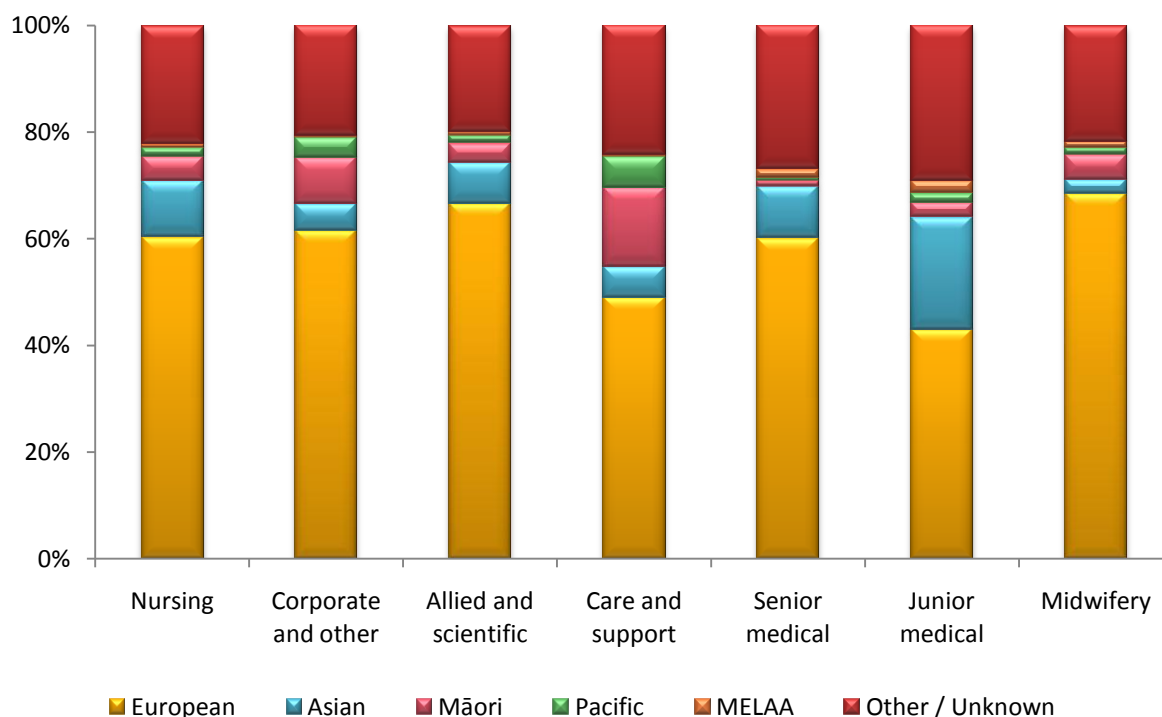


## HEADCOUNT BY OCCUPATION GROUP AND ETHNICITY

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 that follows 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	European		Asian		Māori		Pacific		MELAA		Other	
Nursing	12283	60%	2159	11%	924	5%	336	2%	132	1%	4537	22%
Corporate and other	7333	62%	595	5%	1039	9%	447	4%	41	0%	2446	21%
Allied and scientific	5119	67%	598	8%	273	4%	108	1%	54	1%	1529	20%
Care and support	3200	49%	377	6%	975	15%	376	6%	27	0%	1572	24%
Senior medical	1964	60%	323	10%	33	1%	19	1%	54	2%	876	27%
Junior medical	1163	43%	574	21%	73	3%	48	2%	63	2%	784	29%
Midwifery	766	68%	31	3%	51	5%	14	1%	14	1%	243	22%
Grand Total	31828	59%	4657	9%	3368	6%	1348	3%	385	1%	11987	22%

Notes:

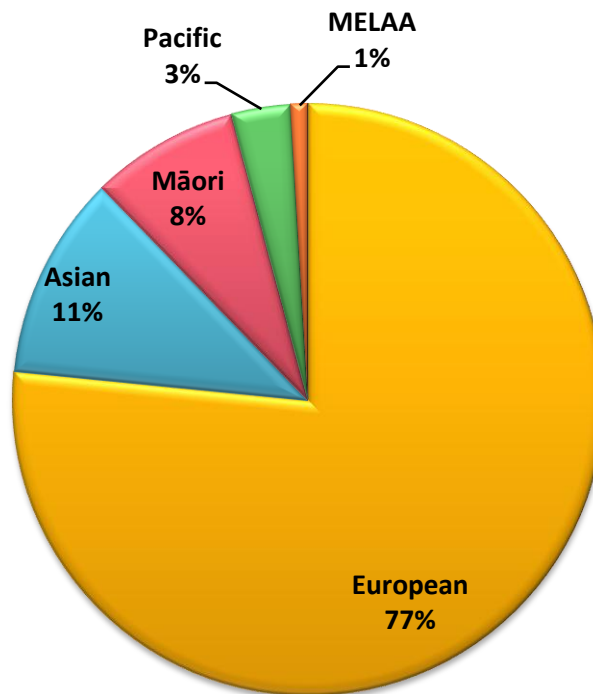
MELAA is a group amalgamation of Middle Eastern, Latin American and African ethnicities

73 entries had no recorded ANZSCO or CCoA code. September 2010 data had 89 uncoded occupations

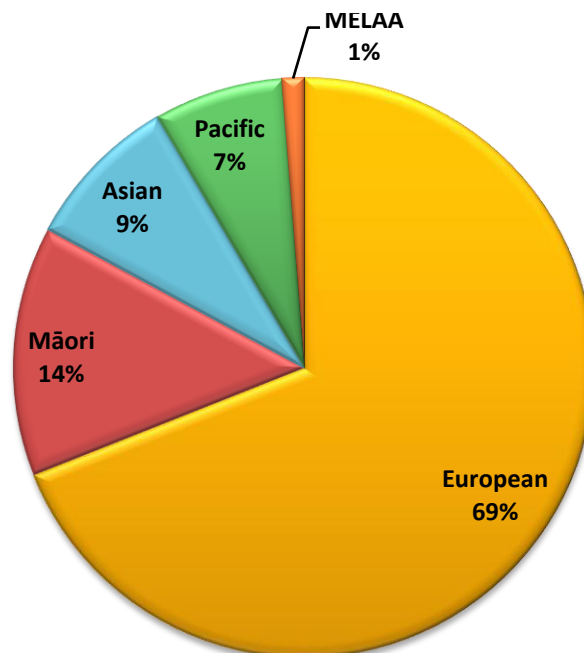
8864 entries have been excluded as they do not match the reporting variable standard format - a 1.3% deterioration on September 2010 data

This pie chart is based on the 41,647 permanent employees who had a valid ethnicity code reported. Below it is a similar pie chart of ethnicity proportions in the New Zealand population based on 2010 PHO enrolment data (extracted 16/08/2010 by MoH).

**Figure 4: Proportion of identifiable ethnicities for all DHBs**



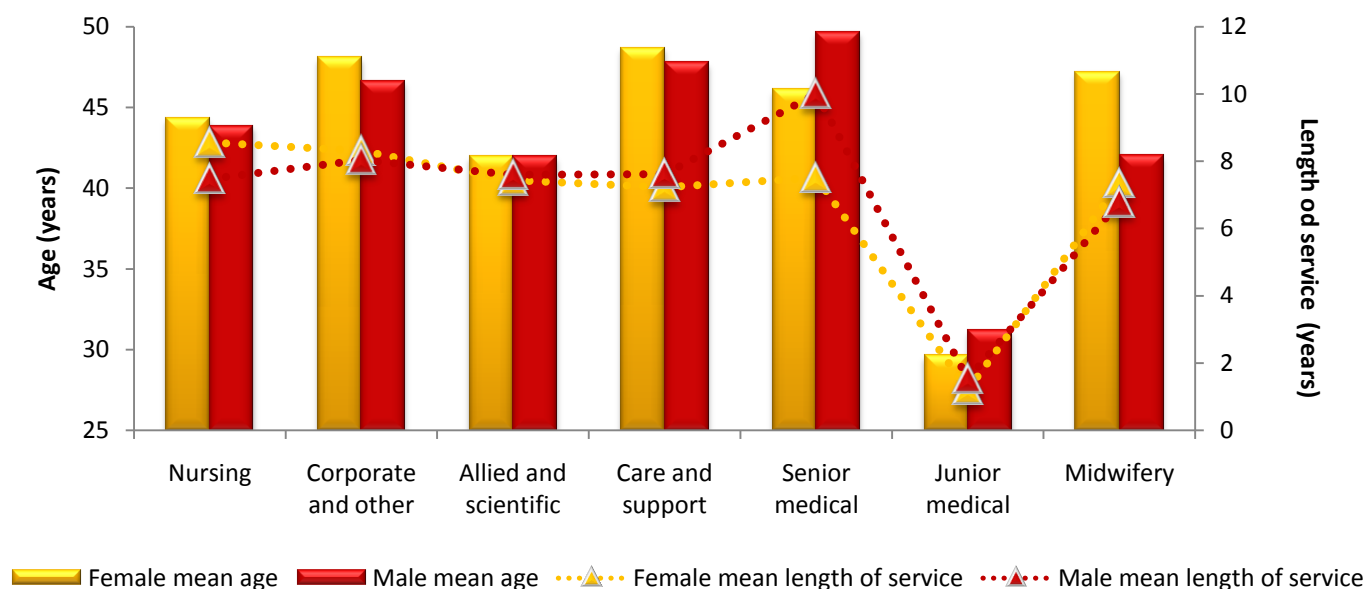
**Figure 5: Proportion of identifiable ethnicities for 2010 PHO enrolment data**



## AGES AND LENGTH OF SERVICE

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

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



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

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

Occupation group	Female		Male	
	Mean length of service	Mean age	Mean length of service	Mean age
Nursing	8.6	44.3	7.5	43.9
Corporate and other	8.3	48.1	8.0	46.7
Allied and scientific	7.4	41.9	7.6	41.9
Care and support	7.2	48.7	7.6	47.8
Senior medical	7.5	46.1	10.0	49.7
Junior medical	1.2	29.6	1.5	31.2
Midwifery	7.3	47.2	6.8	42.0
Grand Total	7.9	44.9	7.6	44.9

**Notes:**

881 entries contained false year of birth data (2.3% improvement on September 2010 data)

959 entries contained immeasurable lengths of service (129.4% deterioration on September 2010 data)

73 entries had no recorded ANZSCO or CCoA code

# 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 table underneath shows the count of employees and mean FTEs by sex for each DHB.

Figure 7: Headcount and mean FTE by sex and DHB

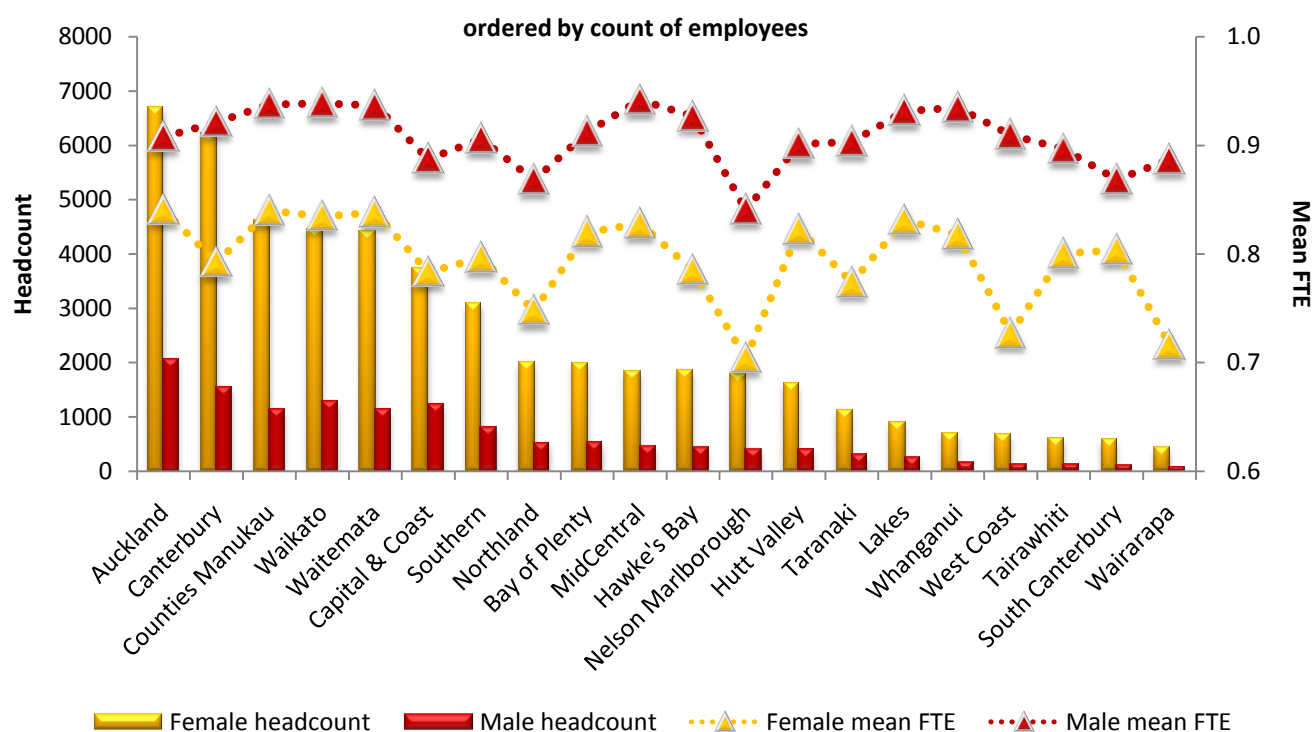


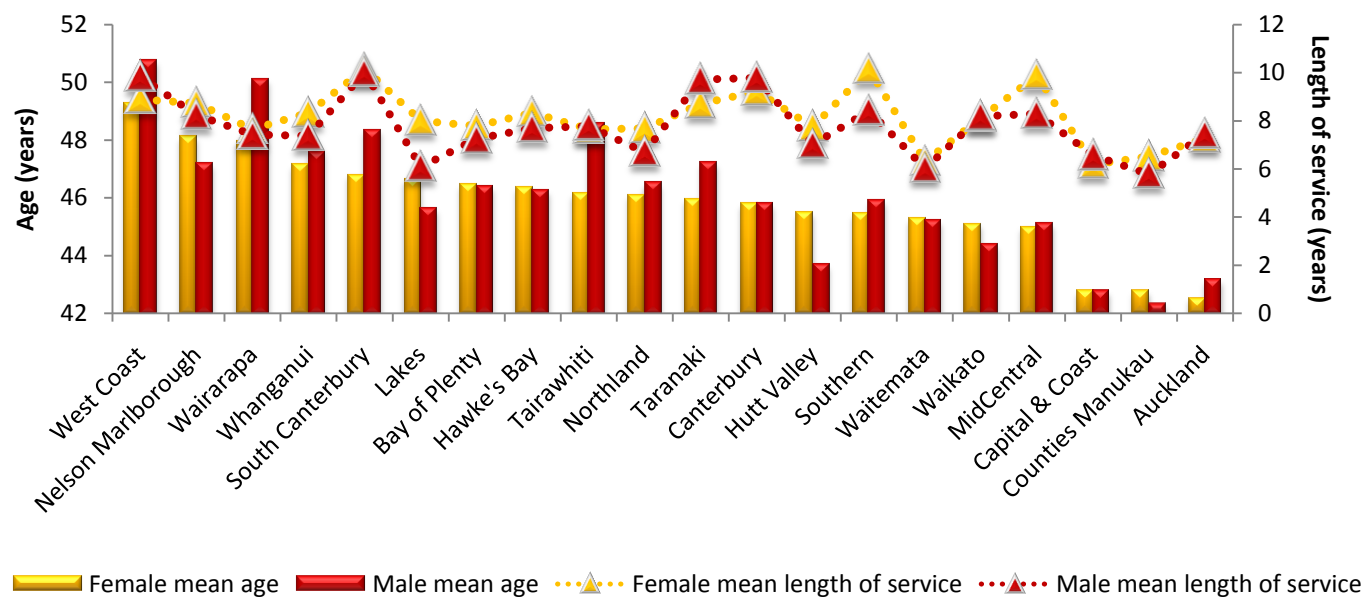
Table 6: Headcount and mean FTE by sex and DHB

		Auckland	Canterbury	Counties Manukau	Waikato	Waitemata	Capital & Coast	Southern	Northland	Bay of Plenty	MidCentral	Hawke's Bay	Nelson Marlborough	Hutt Valley	Taranaki	Lakes	Whanganui	West Coast	Tairāwhiti	South Canterbury	Wairarapa
Female	Count	6701	6220	4623	4466	4427	3743	3094	2005	1991	1839	1855	1788	1609	1114	900	690	671	602	587	442
	Mean FTE	0.84	0.79	0.84	0.83	0.84	0.78	0.80	0.75	0.82	0.83	0.78	0.70	0.82	0.77	0.83	0.82	0.73	0.80	0.80	0.72
Male	Count	2056	1551	1145	1288	1138	1228	800	526	534	460	440	407	395	300	248	166	134	128	114	84
	Mean FTE	0.91	0.92	0.94	0.94	0.94	0.89	0.91	0.87	0.91	0.94	0.93	0.84	0.90	0.90	0.93	0.93	0.91	0.90	0.87	0.89
Total	Count	8757	7771	5768	5754	5565	4971	3894	2531	2525	2299	2295	2195	2004	1414	1148	856	805	730	701	526
	Mean FTE	0.86	0.82	0.86	0.86	0.86	0.81	0.82	0.77	0.84	0.85	0.81	0.73	0.84	0.80	0.85	0.84	0.76	0.82	0.81	0.74

## MEAN AGES AND MEAN LENGTH OF SERVICE BY DHB AND SEX

This chart shows the mean age of employees in each DHB by sex (left hand axis) and has been ordered by descending average female 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**



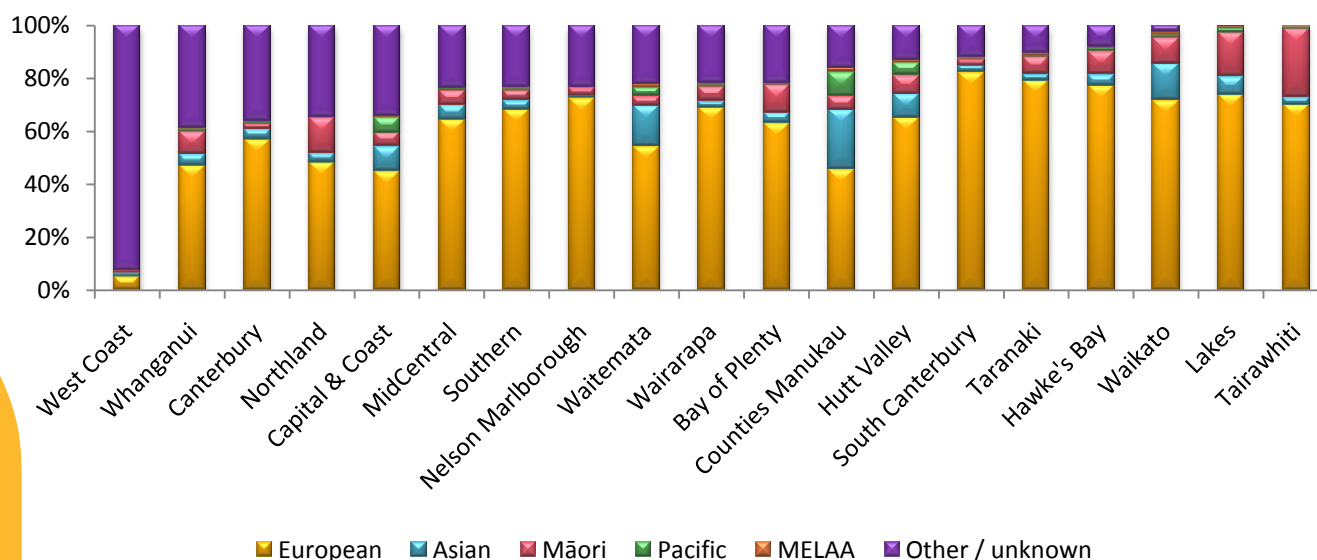
**Table 7: Mean ages and mean length of service by DHB and sex**

DHB	Female mean length of service	Female mean age	Male mean length of service	Male mean age
West Coast	8.9	49.3	9.8	50.7
Nelson Marlborough	8.7	48.1	8.2	47.2
Wairarapa	7.7	48.0	7.4	50.1
Whanganui	8.3	47.2	7.4	47.6
South Canterbury	10.2	46.8	10.0	48.4
Lakes	8.0	46.6	6.1	45.6
Bay of Plenty	7.8	46.5	7.3	46.4
Hawke's Bay	8.3	46.4	7.7	46.3
Tairāwhiti	7.7	46.2	7.8	48.6
Northland	7.7	46.1	6.7	46.5
Taranaki	8.7	46.0	9.7	47.2
Canterbury	9.2	45.8	9.8	45.8
Hutt Valley	7.8	45.5	7.0	43.7
Southern	10.1	45.5	8.4	45.9
Waitemata	6.3	45.3	6.0	45.2
Waikato	8.1	45.1	8.2	44.4
MidCentral	9.9	45.0	8.3	45.1
Capital & Coast	6.2	42.8	6.6	42.8
Counties Manukau	6.5	42.8	5.8	42.3
Auckland	7.3	42.5	7.5	43.2
Grand Total	7.9	44.9	7.6	44.9

## ETHNICITIES BY DHB

The following chart shows the proportion of ethnicities within each DHB employee population (ordered by descending proportion of 'Other/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	European	Asian	Māori	Pacific	MELAA	Other / unknown
West Coast	42	10	9	0	1	743
Whanganui	404	36	74	8	4	330
Canterbury	4440	286	163	42	37	2803
Northland	1226	86	340	10	1	868
Capital & Coast	2240	463	261	292	29	1686
MidCentral	1484	126	129	18	2	540
Southern	2653	140	149	27	21	904
Nelson Marlborough	1594	22	67	3	4	505
Waitemata	3027	854	198	188	69	1229
Wairarapa	330	12	25	4	3	104
Bay of Plenty	1596	101	263	14	2	549
Counties Manukau	2629	1300	304	525	90	920
Hutt Valley	1307	181	141	95	19	261
South Canterbury	573	19	16	2	4	83
Taranaki	1119	36	91	8	14	146
Hawke's Bay	1730	96	198	30	14	173
Waikato	4130	790	566	59	62	147
Lakes	848	79	191	18	7	5
Tairāwhiti	511	21	188	5	2	2
<b>Grand Total</b>	<b>31883</b>	<b>4658</b>	<b>3373</b>	<b>1348</b>	<b>385</b>	<b>11998</b>

Note:

MELAA is a group amalgamation of Middle Eastern, Latin American and African ethnicities

Auckland is not included as the reporting did not match the reporting variable standard format

## 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 employees for the December 2010 quarter as reported in the Household Labour Force Survey (HLFS) by Statistics New Zealand. It shows that DHBs have a more concentrated distribution of employees in the higher age groups (45+) than the national average, and significantly less concentration in the younger age groups.

**Figure 10: Distribution of overall DHB occupation by age, with national employee data**

