

Dental Council

Workforce Analysis 2011-2012

Reporting period:

Dentists and Dental Specialists

1st October 2011 – 30th September 2012

Dental therapists, hygienists, and technicians

1st April 2011 – 31st March 2012

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Section 1: **The Dentist workforce**

Numbers of dentists and dental specialists by age, gender, and qualification source

A total of **2509** dentists appeared in the dental register, 2085 of whom held current APCs. The register included dentists who first registered up until 30 September 2012 and are as follows:

Full registration ('REG')	2085
Full registration, non-practising ('REGN')	424
Total	2509

In total, 2085 dentists with current APCs were included in this analysis, a relatively small increase of 34 over the previous report. Comparisons of dentist:population ratios are based on June 2011 estimates using the 2013 population data published by Statistics New Zealand.

The proportion of female dentists in the workforce has continued its increasing trend, now at 35.4%, up from 6.3% in 1983. On the other hand, the proportion of overseas graduates has not increased since the previous year, the first time a non-increase has been observed since 1996. Overseas-graduated dentists now make up 30.2% of New Zealand's dentists, up from 8.4% in 1996 (Table 1-1, Figure 1-3).

Dentist ages were categorised in 5-year age brackets by practising status (Table 1-2). The ages of currently-practising dentists were not normally distributed, being skewed to the right (Figure 1-1).

Cohort remainder rates

Cohort remainder rates for University of Otago dental graduates appears to have increased over past years (Table 1-3, Figure 1-2). More 2011 graduates chose to practise in New Zealand than were domestically-funded, reflecting the fact that some of the non-domestically funded graduates appear to have chosen to register in New Zealand.

Of the registered, practising dentists, ethnicity data was available for all but 190 who did not respond to the ethnicity question in the workforce survey. New Zealand European dentists comprise half of the total number of dentists, while Maori comprise 3.0%. After New Zealand Europeans, the next most common ethnic groups are ‘other Europeans’, Indians, and Chinese (Table 1-5). A large number of individuals report ‘other’ ethnicities, these are detailed in Table 1-6.

Characteristics of non-practising dentists

Of the total 2509 dentists, proportionally more females (19.4%) than males (15.4%) were not currently practising. Females comprise 36.5% of all dentists, 35.4% currently practising dentists, and 42.0% of non-practising dentists (Table 1-7). A similar pattern is observed among practising dentists who are working part-time, with 46.0% of practising female dentists working part-time but only 31.3% of male dentists working part-time. Female dentists comprise 44.7% of all dentists who work part-time. Among females, parental responsibilities are the most common reason for working part-time (50.6% of the total), followed by personal choice (31.5% of the total). Among males, parental responsibilities accounted for only 5.0% of those who worked part-time, while 48.2% did so due to personal choice. A number of male dentists are in the older age brackets, while female dentists tend to be younger (reflecting the historical trends in the profession), so proportionally more male dentists (18.1%) than female dentists (1.2%) reported part-time work due to being semi-retired from dentistry (Table 1-8).

Among dentists who were not currently practising in New Zealand, more than half (58.7%) were actually practising overseas. The next most frequent category was those who did not answer the question (26.6% of non-practising dentists). Only 9.7% of non-practising dentists reported they were in New Zealand but not currently practising, and among this group the primary reason was that they were retired (Table 1-9).

Postgraduate training

Postgraduate training was reported by 129 dentists (92 practising, 37 not practising), with expected years of completion ranging from 2011 to 2017 (not stated for 23 dentists). About 90% of currently-practising dentists reported an intention to practise in New Zealand

subsequent to completion of their postgraduate training, while fewer than half (45.9%) of non-practising dentists reported an intention to do so (Table 1-10). Of the dentists who reported that they were undertaking postgraduate training, 92 (71.3%) either did not state the branch of dentistry in which they were training, or the area of their postgraduate study was not a dental branch, leaving only 30 currently practising and 7 non-practising dentists who reported that they were studying a branch of dentistry (Table 1-11).

Hours worked and practice type

Hours spent working in different dental speciality scopes (as well as administration, teaching, and research) for dentists practising in the specialist scopes are reported for primary employers (Table 1-12) and secondary employers (Table 1-13).

Working primarily for the Ministry of Health or a District Health Board was reported by 22 specialists. The mean number of hours worked per week was 32.3 hours (sd 12.4) by the 18 specialists who reported hours worked. The most common specialities among MoH/DHB employees were Oral & Maxillofacial Surgery (5 specialists, working an average of 40.4 hours per week), Dental Public Health (3 specialists, working an average of 28.3 hours per week), Paediatric Dentistry (3 specialists, working an average of 15.3 hours per week), and Special Needs Dentistry (3 specialists, working an average of 29.3 hours per week).

Working in private practice was reported by 181 specialists, 168 of whom were self-employed and the remainder were employees. Among those who were self-employed and reported the number of hours they worked each week (n=158), the average number of hours worked was 32.2 (sd 10.8). Work within the scope of orthodontics was most common (with 73 orthodontists reporting they worked an average of 32.3 hours per week in that scope), followed by periodontics (with 25 reporting an average of 29.2 hours per week in that scope), and oral and maxillofacial surgery (with 23 dentists reporting an average of 35.6 hours per week in that scope).

A total of 30 specialists reported primary employment at the University of Otago Faculty of Dentistry, and a mean of 31.8 hours per week (sd 12.7) was reported by the 25 who

reported hours. Specialists in every scope except Special Needs/Hospital Dentistry and Oral Surgery were represented. The staff working the longest hours per week (on average) at the school of dentistry were those practising Oral & Maxillofacial Surgery (50.0 hours per week) and Oral Medicine & Pathology (41.7 hours per week).

Hours spent working in different areas of dental practice (as well as administration, teaching, and research) for practising general dentists are reported for primary and secondary employers in Table 1-14. A total of 1477 general dentists reported a primary employer, while 115 reported a secondary employer. The following practice type reporting relates to primary employer data. Of those that reported hours, 1422 reported working in private practice, 1315 as self-employed contractors and 107 as private practice employees. Average work per week was 32.1 and 31.2 hours among the self-employed contractors and employees, respectively. Most working time was dedicated to the practise of general dentistry (1314 dentists, at 32.0 hours per week)), with only 6 self-employed contractors reporting spending any time teaching and a further 19 in administration in their self-employed roles. Work for a DHB or the MoH was reported by 93 general dentists, and a mean of 34.8 hours work per week was reported by the 85 dentists who reported hours. Administration activities were reported as taking up 13.5 hours per week by 8 dentists, with the remaining hours all spent in the practise of general dentistry. Work for the University of Otago Faculty of Dentistry was reported by 36 general dentists, with a mean of 26.9 hours per week reported among the 27 dentists who reported hours. Teaching was a major activity among employees of the Faculty of Dentistry, with 13 dentists reporting spending 20.2 hours per week on that activity. Some 17 dentists reported working an average of 27.3 hours per week in general dentistry.

Type of practice for all practising dentists (specialists and general dentists) are reported in Table 1-15, while the total number of hours worked per week (in both primary and secondary employment) is reported in Table 1-16. Among the self-employed dentists (n=1520), just under 30% were in solo practice, while the majority were in group practice. Of the 311 dentists who reported they were employees, 39.5% were in private practice, 29.3% worked for a DHB, 20.9% worked for the University of Otago Faculty of Dentistry, while the remainder worked for government departments, Iwi organisations, or the

Ministry of Health. Alternative forms of employment were reported by 20 dentists, while 234 dentists did not report the type of dental practice in which they worked. A mean of 33.7 hours was reported among the 1847 dentists who reported hours worked. Eighty dentists reported working only 1-10 hours per week, while 35 dentists reported working more than 60 hours per week. General dentists were, on average, slightly less busy than specialists, with means of 33.5 hours and 34.9 hours per week, respectively. 238 dentists and dental specialists did not report the number of hours they worked each week.

Country of qualification

Country of primary qualification for general dentists was reported as 'New Zealand' by 68.4% of general dentists and 80% of dental specialists, respectively. For those 69.8% of dentists and dental specialists that graduated from the University of Otago, cohort remainder rates since the 1940s are presented in Table 1-18. Among the remaining 30.2% of dentists and dental specialists who did not obtain their primary dental qualification in New Zealand (whether through NZDREX or equivalency), remainder rates are represented in Table 1-19. The most frequent sources of primary qualification for overseas-trained dentists and dental specialists were the United Kingdom (160), India (128), South Africa (86), Iraq (51), and Australia (34). Graduates of 50 foreign countries are represented in the New Zealand dental workforce (Table 1-17, Figure 1-3). While 185 dentists reported Chinese ethnicity, only 3 dentists obtained their primary qualifications in that country; on the other hand, 40 dentists reported South African ethnicity but 86 dentists obtained their primary qualifications in that country.

Changing gender balance in the workforce

The gender imbalance in the dental profession has decreased due to the changes in the graduating cohorts of dentists; however the proportion of female dentists with postgraduate specialist training is not as favourable. Among practising dentists, 8.9% of female dentists were registered as specialists, while 14.0% of male dentists were registered as specialists. The difference in the proportion of males and females who were registered as specialists was statistically significant ($P < 0.001$). The specialities with the greatest gender imbalances were the relatively large specialities of prosthodontics (90.0% males), and orthodontics (72.0% males). All restorative dental specialists and oral & maxillofacial surgeons were

male. On the other hand, paediatric dentistry had proportionally more women (81.8%). Overall, one in every four dental specialists were female. It is difficult to speculate on whether this difference is due to greater difficulty in career advancement for women or due to the historical make-up of the dental profession (as likelihood of specialist status may be confounded by age).

Geographic distribution of dentists

The geographic distribution of dentists by TLA and DHB are detailed in Table 1-21 and Table 1-23, together with population ratios in Table 1-22 and Table 1-24. Population data reported here are estimates for June 2011 using base 2013 data from Statistics New Zealand. The population ratios follow similar patterns to those observed in previous years. Across the DHBs, dentist:population ratios were lowest in Tairāwhiti, Counties-Manukau, Taranaki, Wairarapa, and West Coast (all below 40 dentists per 100,000 population aged 15+ years), while dentist:population ratios were highest in Auckland, Capital & Coast, Hawkes Bay, and Southern.

Dentist and dental specialist workforce data tables

Table 1-1. Number of dentists in the active workforce by year (with APC and in NZ)

Year	Total	% Male	% Female	% Overseas graduates
1983	1142	93.7	6.3	6.2
1984	1148	93.7	6.3	5.3
1985	1176	92.6	7.4	4.9
1986	1204	91.8	8.2	5.1
1987	1219	90.2	9.8	6.3
1988	1233	88.7	11.3	6.4
1989	1215	88.1	11.9	5.8
1990	1226	87.4	12.6	6.4
1991	1262	86.7	13.3	6.7
1992	1287	85.2	14.8	6.8
1993	1306	84.2	15.8	7.4
1994	1312	84.0	16.0	7.5
1995	1346	83.2	16.8	8.8
1996	1364	81.7	18.3	8.4
1997	1473	79.5	20.5	12.1
1998	1496	79.0	21.0	13.1
1999	1558	77.2	22.8	14.5
2000	1591	76.4	23.6	16.1
2001	1601	76.3	23.7	16.9
2002	1645	75.6	24.4	18.2
2003	1662	74.5	25.5	19.7
2004	1747	73.0	27.0	21.1
2005	1682	72.8	27.2	21.0
2006	1717	70.8	29.2	22.8
2007	1779	70.1	29.9	24.0
2008 ^a	1867	68.6	31.4	25.4
2009 ^b	2000	66.5	33.5	27.6
2010/2011	2051	65.8	34.2	30.3
2011/2012	2085	64.6	35.4	30.2

^aReporting date 31 March (previously 31st December)

^bReporting date changed to 30 September

(Data source: Dental Register)

Table 1-2: Age by current registration status

	Practising (%)	Non-practising (%)
Under 24 years	60 (2.9)	2 (0.5)
25-29 years	201 (9.6)	56 (13.2)
30-34 years	199 (9.5)	65 (15.3)
35-39 years	250 (12.0)	74 (17.5)
40-44 years	236 (11.3)	52 (12.3)
45-49 years	274 (13.1)	43 (10.1)
50-54 years	294 (14.1)	47 (11.1)
55-59 years	232 (11.1)	34 (8.0)
60-64 years	153 (7.3)	23 (5.4)
65+ years	186 (9.0)	28 (6.6)
Total	2085	424

Unless otherwise indicated, brackets contain percentages in this and all following tables. Dentist age calculated as at 30 September 2012

Figure 1-1. Histogram of dentist age by practising status

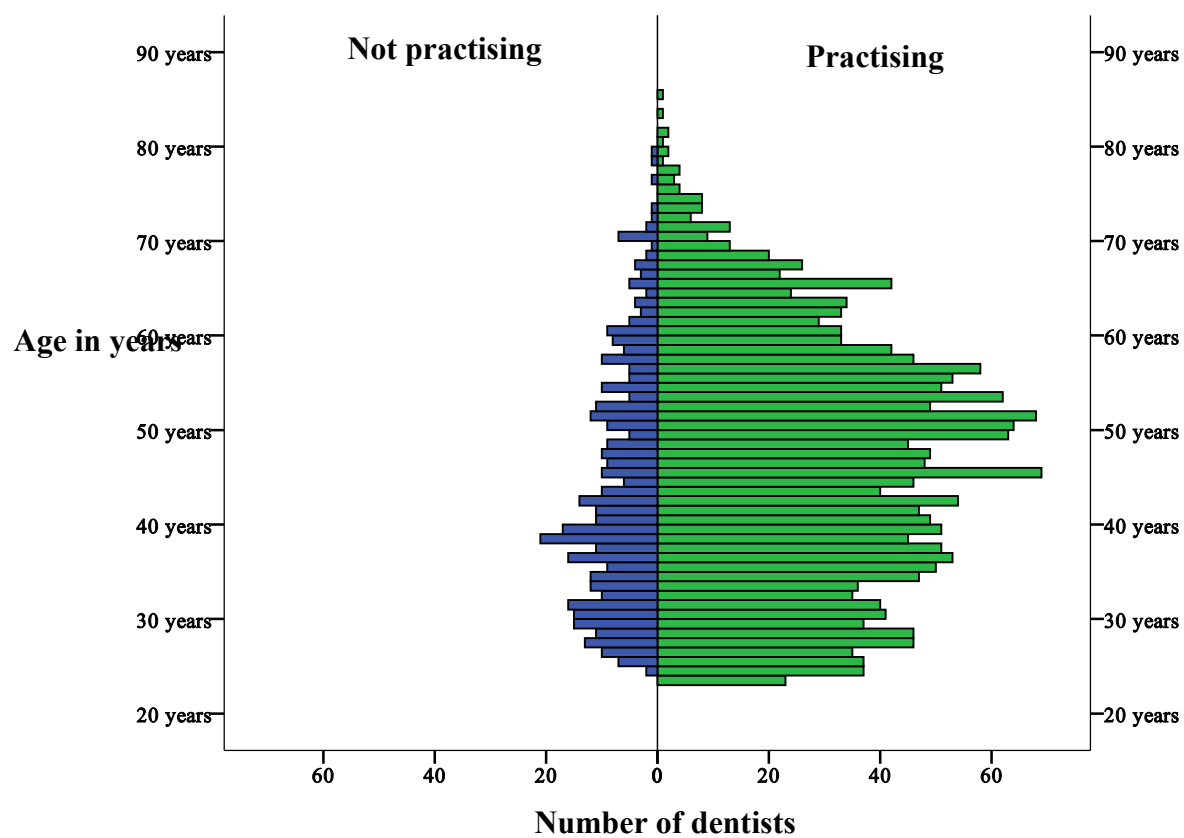


Table 1-3: Longitudinal analysis of the cohort remainder rate of University of Otago dental graduates (domestic students only).

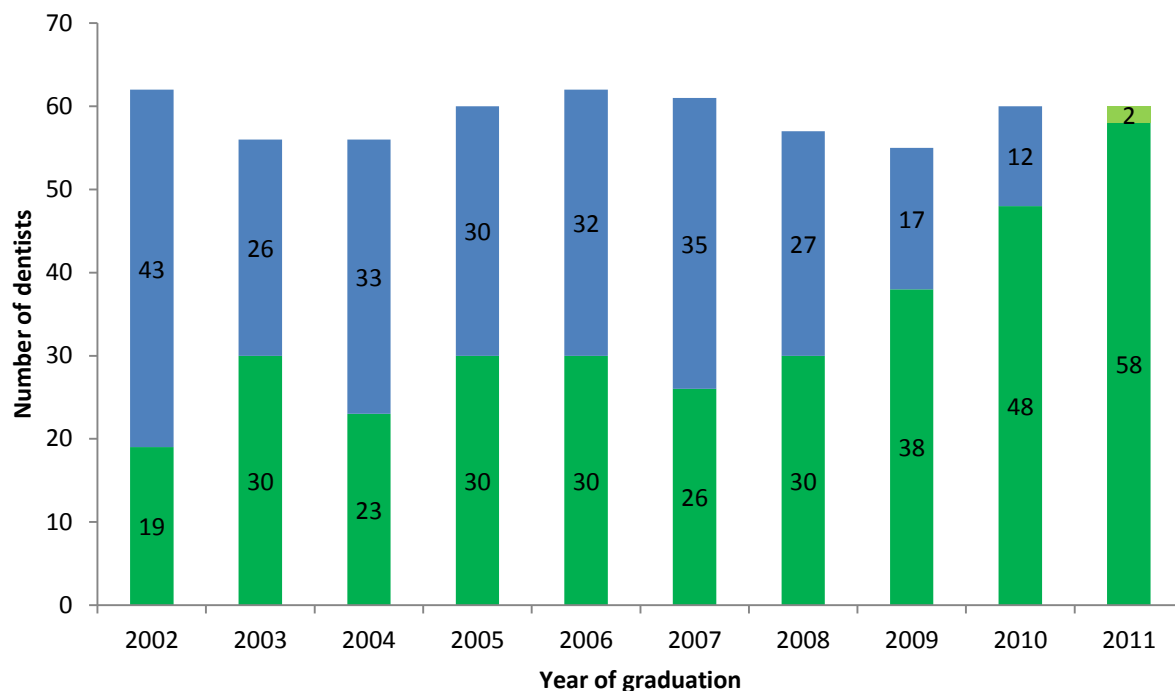
	Year of graduation								
	Number of students (percentage cohort remainder rate)								
	2011	2010	2009	2008	2007	2006	2005	2004	2003
Practising status as at	Total number of graduates who were not externally-funded ^a								
	58	60	55	57	61	62	60	56	56
September 2012	60 (103.4) ^b	48 (80.0)	38 (69.1)	30 (52.6)	26 (42.6)	30 (48.4)	30 (50.0)	23 (41.1)	30 (53.6)
September 2011		57 (95.0)	46 (83.6)	34 (59.6)	27 (44.3)	29 (46.8)	32 (53.3)	25 (44.6)	29 (51.8)
March 2010			45 (81.8)	45 (78.9)	38 (62.3)	34 (54.8)	35 (58.3)	28 (50.0)	28 (50.0)
March 2009				(56.1)	(72.1)	(64.5)	(71.7)	(67.9)	(55.4)
December 2007						(50.0)	(71.7)	(60.7)	(46.4)
December 2006							(65.0)	(42.9)	(53.6)
December 2005								(48.2)	(72.4)
December 2004									(73.2)

^aNote that data in this row comes from dental school data, not the register, so data in this table may differ from that in Table 1-18.

^bNote that a small number of privately-funded 'international' graduates may gain residency/citizenship during their course of study, and therefore gain domestic student status. Thus, the number of domestic graduates may exceed the number of domestic admissions each year (and it is not possible to identify these). The number of domestic graduates may also vary by year as some students repeat a year or more of study.

(Data sources: Dental Register and School of Dentistry records)

Figure 1-2. Otago BDS graduate cohort remainder rates for domestically-funded* graduates from classes of 2002 onwards



- Number domestic graduates not practising in NZ as at Sept 2012
- Otago BDS graduates in excess of the number of domestic graduates practising in NZ as at Sept 2012**
- Number domestic graduates practising in New Zealand as at Sept 2012

*The number of domestic admissions target has remained static at 54 students per year, except in 2008 when 58 students were admitted (the graduating class of 2011). Note that a small number of privately-funded 'international' graduates may gain residency/citizenship during their course of study, and therefore gain domestic student status. Thus, the number of domestic graduates may exceed the number of domestic admissions each year. The number of domestic graduates may also vary by year as some students repeat a year or more of study.

**An assumption is made that students who practice in NZ after graduation are domestically-funded graduates, while international-funded students normally return to their sponsoring country. In 2011, the number of registrants exceeded the number of domestic graduates for the year, possibly due to non-domestically-funded Otago BDS graduates registering in New Zealand rather than leaving New Zealand.

Table 1-4: Response rates to the Workforce Survey

Current registration status	Total number of dentists	Number who completed questionnaire	Response Rate
Current APC	2085	2085	100.0%
No current APC	424	424	100.0%

(Data sources: Dental Register and Workforce Survey. Note that some participants did not complete all items on the workforce survey, particularly regarding 'hours worked')

Table 1-5: Ethnicity (primary and secondary) among those in NZ with registration and APC

Ethnicity	Primary (%)	Secondary	Total ^a (%)
NZ European	1054 (50.6)	1	1055 (50.6)
Māori	9 (0.4)	53	62 (3.0)
Other European	191 (9.2)	26	217 (10.4)
Samoan	3 (0.1)	3	6 (0.3)
Cook Island Māori	0		
Tongan	1 (0.0)	2	3 (0.1)
Niuean	0		
Tokelauan	0		
Fijian	6 (0.3)	1	7 (0.3)
Other Pacific Peoples	4 (0.2)		4 (0.2)
Chinese	182 (8.7)	3	185 (8.9)
Other East Asian	49 (2.4)	1	50 (2.4)
Indian	183 (8.8)	9	192 (9.2)
Other Asian	77 (3.7)	1	78 (3.7)
Other	136 (6.5)	16	152 (7.3)
No response to question	190 (9.1)		190 (9.1)
Total	2085		2085 ^a
Total selecting an 'Other' group	457 (21.9)	44	501 (24.0)

^aTotal is greater than 2085 due to double reporting of ethnicity; however denominator used for % values is 2085 to allow accurate reporting of percentages relative to total number of dentists.

Table 1-6: Self-identification of 'other' primary ethnicity by geographic area

Africa		Great Britain		Asia	
African	4	Anglo-Saxon	1	Bangladeshi	2
Egyptian	3	British/UK	58	Cambodian	1
Namibian	1	UK Sri Lankan	1	Chinese (ticked 'other')	1
South African	33	English	15	Indonesian Chinese	2
South African British	1	English Irish	1	Indian (ticked 'other')	1
South African European/White	4	English German	1	Korean (South)	33
South African Indian	2	Scottish	5	Malay	2
Sudanese	1	Welsh	2	Malaysian	4
Zambian South African	1			Malaysian Chinese	13
Americas		Other European		Pakistani	2
African-American	1	Bulgarian	1	Singaporean	1
American/US	11	Croatian	1	South East Asian	1
Argentinean/European Argentinean	1	Czech	1	Sri Lankan	18
Brazilian	3	Dutch	7	Taiwanese	19
Canadian	3	Finnish	1	Thai	3
Colombian	1	German	7	Turkish	1
Hispanic	1	Greek	2	Vietnamese	1
Latin	1	Irish	4		
Latin American	3	Irish Malaysian	1	New Zealand	
North American	1	Italian	1	New Zealander	13
South American/Sudamerican	4	Latvian	1	Kiwi	1
US Caucasian/White	1	Lithuanian	2	New Zealand English	1
		Magyar/Hungarian	1	New Zealand Chinese	6
		Mediterranean	1	New Zealand Indian	2
		Polish	2	New Zealand Iraqi	1
Middle East		Romanian	5	New Zealand Tamil	1
Arab	19	Russian	9	Pakeha	1
Hebrew	1	Russian Israeli	1		
Iranian	3	Scandinavian	1	Other Oceania	
Iranian Persian	2	Serbian	1	Australian	12
Iraqi	24	Ukrainian	3	Australian English	1
Kurdish	1	Yugoslavian	1	Fijian Indian	2
Middle eastern	17			Filipino	4
Phoenician	1			Vanuatuan	1
Yemeni	1				
				Other unspecified	
					18

(Data source: Workforce Survey)

Table 1-7: Gender by current registration status

Gender	Current APC	No current APC	All dentists (col %)
Male	1346 (64.6)	246 (58.0)	1592 (63.5)
Female	739 (35.4)	178 (42.0)	917 (36.5) ^a
Total	2085 (83.1)	424 (16.9)	2509

(Data source: Dental Register)

Table 1-8: Reasons for part-time employment

Reason for practising part-time	Females (%)	Males (%)	Overall number (%)
Engaged in non-dental work	7 (2.1)	31 (7.4)	38 (5.0)
Insufficient dental work	18 (5.3)	46 (10.9)	64 (8.4)
Seeking dental work	5 (1.5)	2 (0.5)	7 (0.9)
Semi-retired from dentistry	4 (1.2)	76 (18.1)	80 (10.5)
Parental responsibilities	172 (50.6)	21 (5.0)	193 (25.4)
Personal choice	107 (31.5)	203 (48.2)	310 (40.7)
Other (see below)	27 (7.9)	42 (10.0)	69 (9.1)
Total working part time	340 (44.7)	421 (55.3)	761 (36.5)

Reasons offered by the 69 who selected 'other' reason:

Administration (4)
 Doing non-dental work (2)
 Earthquake/surgery destroyed (7)
 Ethnicity (2)
 Extended holiday or overseas travel (3)
 Health problems, including repetitive strain injury (7)
 Locum/part-time position (5)
 Maternity leave/pregnancy/parenting (3)
 NZDC/NZDA work (1)
 Requirement of NZ Dental Council (2)
 Research (1)
 Studying (27)
 Teaching (4)
 Other (1)

(Data source: Workforce Survey)

Table 1-9: Practising pattern, dentists who are not currently practising in New Zealand

Employment status	Females (%)	Males (%)	Overall number (col %)
Practising overseas	103 (57.9)	146 (59.3)	249 (58.7)
Overseas and not practising	12 (6.7)	9 (3.7)	21 (5.0)
In NZ but not practising	19 (10.7)	22 (8.9)	41 (9.7)
Did not answer question	44 (24.7)	69 (28.0)	113 (26.6)
Total not currently practising	178 (42.0)	246 (58.0)	424 (16.9)
Currently practising (has APC)	739 (35.4)	1346 (64.6)	2085 (83.1)
Total	917 (36.5)	1592 (63.5)	2509
Employment status of 'In NZ but not practising' group			
Another health profession	2	4	6
Non-health profession	3	2	5
Full-time study	1	0	1
Parental responsibilities	6	0	6
Other unpaid work	0	2	2
Seeking work	0	2	2
Retired	6	10	16
Not reported	1	2	3

(Data source: Workforce Survey)

Table 1-10: Postgraduate training

	Current APC (%)	No current APC (%)	Overall (col %)
<hr/>			
Expected year of completion			
2011	25 (27.2)	13 (41.9)	38
2012	30 (32.6)	4 (12.9)	34
2013	12 (13.0)	7 (22.6)	19
2014	5 (5.4)	4 (12.9)	9
2015	4 (4.3)	0	4
2016	1 (1.1)	0	1
2017	1 (1.1)	0	1
Not stated/unsure	14	9	23
<hr/>			
Intend to practise in NZ?			
Yes	83 (90.2)	17 (45.9)	100
No	9 (9.8)	20 (54.1)	29
Total in postgraduate training	92 (71.3)	37 (28.7)	129
<hr/>			

(Data source: Workforce Survey)

Table 1-11: Branch of dentistry in which postgraduate training being undertaken (as stated in Workforce Survey)

	Current APC (%)	No current APC (%)	Overall (col %)
Branch of dentistry			
General dentistry	7	0	7 (5.4)
Dental public health/Community dentistry	0	0	0
Endodontics	2	0	2 (1.6)
Oral Medicine	1	0	1 (0.8)
Oral Pathology	0	0	0
Oral Surgery	1	0	1 (0.8)
Oral & maxillofacial surgery	3	1	4 (3.1)
Orthodontics	4	3	7 (5.4)
Paediatric dentistry	5	1	6 (4.6)
Periodontics	2	0	2 (1.6)
Restorative dentistry	0	1	1 (0.8)
Prosthodontics	5	1	6 (4.6)
Special needs/Hospital dentistry	0	0	0
More than one branch (e.g. Oral Surgery & Special Needs Dentistry)	0	0	0
Other/not reported (or not a dental branch)	62	30	92 (71.3)
Total	92	37	129

(Data source: Workforce Survey)

Table 1-12: Work type by primary employer – practitioners registered in specialist scopes^a

	MoH or DHB		Private (self-employed)		Private (employed)		University Dental School	
	No.	Mean hrs (sd)	No.	Mean hrs (sd)	No.	Mean hrs (sd)	No.	Mean hrs (sd)
General Dentistry			7	32.4 (6.9)			1	20.0
Administration/Management							1	8.0
Dental Public Health	3	28.3 (10.4)			1	27.0	4	22.3 (15.2)
Endodontics			19	31.0 (10.6)	1	36.0	2	16.0 (5.7)
Spec Needs/Hospital Dentistry	3	29.3 (14.7)	1	4.0				
Oral Medicine & Pathology	1	24.0	2	10.0 (2.8)			3	41.7 (2.9)
Oral Surgery	1	5.0	7	33.9 (7.4)				
Oral & Maxillofacial Surgery	5	40.4 (10.2)	23	35.6 (9.0)	2	50.0 (14.1)	2	50.0 (14.1)
Orthodontics			73	32.3 (11.6)	4	34.8 (7.5)	2	28.0 (17.0)
Paediatric Dentistry	3	15.3 (14.5)	5	21.2 (19.4)			2	17.5 (10.6)
Periodontics	1	29.0	25	29.2 (12.3)	2	40.5 (6.4)	3	18.3 (18.9)
Research	1	4.0	2	18.0			6	13.5 (11.6)
Restorative Dentistry			7	20.4 (12.3)	1	10.0	2	14.0 (5.7)
Prosthodontics	1	10.0	7	21.0 (11.4)	3	25.3 (6.1)	5	19.8 (13.9)
Teaching							2	28.0 (5.7)
Other							1	10.0
No hours recorded	4		10		0		5	
Number specialists working 1+ hours / week ^b	18	32.3 (12.4)	158	32.2 (10.8)	13	36.1 (9.7)	25	31.8 (12.7)
Total number of specialists ^c	22		168		13		30	

^aThis information not sought from non-specialists^bSpecialists reporting not working any hours are excluded from these calculations, as were specialists who reported they worked an average of more than 24 hours per day^cTotal of the column above may sum to greater than this, as some specialists reported activity in more than one scope for their primary employer
(Data source: Workforce Survey)

Table 1-13: Work type by secondary employer – practitioners registered in specialist scopes^a

	MoH or DHB		Private (self-employed)		Private (employed)		University Dental School	
	No.	Mean hrs (sd)	No.	Mean hrs (sd)	No.	Mean hrs (sd)	No.	Mean hrs (sd)
General Dentistry			1	19.0				
Administration/Management								
Dental Public Health								
Endodontics								
Spec Needs/Hospital Dentistry								
Oral Medicine & Pathology								
Oral Surgery							1	8.0
Oral & Maxillofacial Surgery	3	18.0 (12.1)	6	21.7 (9.5)	1	3.0		
Orthodontics	4	8.0 (5.7)	4	9.3 (5.0)	1	16.0		
Paediatric Dentistry			1	8.0			1	10.0
Periodontics	1	4.0	1	8.0			1	16.0
Research								
Restorative Dentistry								
Prosthodontics	1	8.0	1	3.0				
Teaching								
Other								
No hours recorded	5		6		1		7	
Number specialists working 1+ hours / week ^b	9	10.9 (8.9)	14	14.4 (9.5)	2	9.5 (9.2)	3	11.3 (4.2)
Total number of specialists ^c	14		20		3		10	

^aThis information not sought from non-specialists^bSpecialists reporting not working any hours are excluded from these calculations, as were specialists who reported they worked an average of more than 24 hours per day^cTotal of the column above may sum to greater than this, as some specialists reported activity in more than one scope
(Data source: Workforce Survey)

Table 1-14: Work type by primary and secondary employer – general dentists

	General dentistry		Teaching ^b		Administration ^b		Overall		
	Number	Mean hours spent at work type (SD)	Number	Mean hours spent at work type (SD)	Number	Mean hours spent at work type (SD)	Number	Mean hours spent at work type (SD)	Number not reported ^c
Primary employer									
Private practice (self-emp) ^a	1314	32.0 (9.2)	6	8.8 (7.0)	19	6.5 (4.5)	1315	32.1 (9.2)	35
Private practice (employee)	107	30.7 (10.4)			2	30.0 (0.0)	107	31.2 (10.0)	3
DHB or Min. of Health	83	34.4 (11.5)			8	13.5 (10.6)	85	34.8 (11.4)	8
University Dental School	17	27.3 (12.3)	13	20.2 (14.4)			27	26.9 (12.6)	9
Total number ^d							1477		
Secondary employer									
Private practice (self-emp) ^a	75	14.6 (11.3)	12	5.3 (3.6)	6	8.2 (4.4)	93	13.0 (10.8)	
Private practice (employee)	5	13.4 (15.1)	3	8.3 (7.5)			8	11.5 (12.4)	
DHB or Min. of Health	7	11.4 (12.9)			1	10.0	8	11.3 (11.9)	
University Dental School	4	17.3 (19.0)					4	17.3 (19.0)	
Total number ^d							115		

(Includes practitioners registered in the general dental scope, reduced categories. Specialists and specialist trainees excluded.)

^aSolo or group practice

^bWhere specifically employed to do so

^cNote that some dentists did not report any hours, and data are excluded for those dentists who indicated that they worked more than 24 hours per day. Furthermore, some dentists did not report their employer type, so totals are estimates only

^dTotal of the column above may sum to greater than this, as some dentists reported activity in more than one scope

(Data source: Workforce Survey)

Table 1-15: Type of practice – general dentists and dental specialists

	Number (%)	Overall percentage
Self-employed dentists & dental specialists ^a		
Solo practice	443 (29.1)	21.2
Group practice	1077 (70.9)	51.7
Subtotal	1520	72.9
Employee dentists& dental specialists		
Private practice	123 (39.5)	5.9
DHB	91 (29.3)	4.4
School of Dentistry	65 (20.9)	3.1
Government Department, not MOH	21 (6.8)	1.0
Iwi	10 (3.2)	0.5
Ministry of Health	1 (0.3)	0.0
Subtotal	311	14.9
Other forms of employment	20	0.9
No reply to question	234	11.3
Total	2085	100.0

^aNote: only the information on the primary employer was analysed.
(Data source: Workforce Survey)

Table 1-16: Total number of hours worked per week

Number of hours worked	Number practicing in NZ with APC		
	All combined	General dentists	Specialist dentists
1 to 10	80 (4.3)	65 (4.0)	15 (6.5)
11 to 20	164 (8.9)	145 (9.0)	19 (8.2)
21 to 30	352 (19.1)	310 (19.2)	42 (18.2)
31 to 40	1049 (56.8)	938 (58.0)	111 (48.1)
41 to 50	139 (7.5)	110 (6.8)	29 (12.6)
51 to 60	28 (1.5)	19 (1.2)	9 (3.9)
More than 60	35 (1.9)	29 (1.8)	6 (2.6)
Number giving data on hours	1847	1616	231
Mean no. of hours/week (SD)	33.7 (11.3)	33.5 (11.1)	34.9 (12.6)
Nil response or excluded	238	214	24
Total ^a	2085	1830	255

^a238 dentists did not report any hours worked and were excluded from analysis. Data for 7 dentists who indicated they worked for longer than 80 hours per week were recoded as having worked a maximum of 80 hours per week.
(Data source: Workforce Survey)

Table 1-17: Country of primary dental qualification

Qualification source	Specialist dentists	General dentists	All dentists in NZ
	N (row %)	N (row %)	N (row %)
New Zealand	204 (80.0)	1252 (68.4)	1456 (69.8)
Overseas	51 (20.0)	578 (31.6)	629 (30.2)
Total (row %)	255 (12.2)	1830 (87.8)	2085
	N (col %) ^a	N (col %) ^a	N (col %) ^a
Argentina		4 (0.2)	4 (0.2)
Australia	5 (2.0)	29 (1.6)	34 (1.6)
Bangladesh		1 (0.1)	1 (0.0)
Brazil		8 (0.4)	8 (0.4)
Bulgaria		2 (0.1)	2 (0.1)
Canada	1 (0.4)	8 (0.4)	9 (0.4)
Chile		1 (0.1)	1 (0.0)
China		3 (0.2)	3 (0.1)
Colombia		2 (0.1)	2 (0.1)
Czech Republic		3 (0.2)	3 (0.1)
Egypt		3 (0.2)	3 (0.1)
Fiji	1 (0.4)	7 (0.4)	8 (0.4)
Finland		1 (0.1)	1 (0.0)
France	1 (0.4)	1 (0.1)	2 (0.1)
Germany	3 (1.2)	4 (0.2)	7 (0.3)
Holland/Netherlands	1 (0.4)	2 (0.1)	3 (0.1)
Hong Kong		1 (0.1)	1 (0.0)
India	4 (1.6)	124 (6.8)	128 (6.1)
Indonesia		1 (0.1)	1 (0.0)
Iran		1 (0.1)	1 (0.0)
Iraq	3 (1.2)	48 (2.6)	51 (2.4)
Ireland	2 (0.8)	2 (0.1)	4 (0.2)
Israel		2 (0.1)	2 (0.1)
Italy	1 (0.4)		1 (0.0)
Jordan		4 (0.2)	4 (0.2)
Korea		4 (0.2)	4 (0.2)
Latvia		1 (0.1)	1 (0.0)
Macedonia		1 (0.1)	1 (0.0)
Malaysia	1 (0.4)	2 (0.1)	3 (0.1)
Mexico	1 (0.4)		1 (0.0)
Pakistan		1 (0.1)	1 (0.0)
Philippines		9 (0.5)	9 (0.4)
Poland		2 (0.1)	2 (0.1)
Puerto Rico		1 (0.1)	1 (0.0)
Romania		7 (0.4)	7 (0.3)
Russia		11 (0.6)	11 (0.5)
Serbia		2 (0.1)	2 (0.1)
Singapore		7 (0.4)	7 (0.3)
South Africa	7 (2.7)	79 (4.3)	86 (4.1)
Sri Lanka	2 (0.8)	9 (0.5)	11 (0.5)
Sweden		1 (0.1)	1 (0.0)
Syria		1 (0.1)	1 (0.0)
Taiwan	1 (0.4)	1 (0.1)	2 (0.1)
Thailand	1 (0.4)	1 (0.1)	2 (0.1)
Turkey		1 (0.1)	1 (0.0)
Ukraine		3 (0.2)	3 (0.1)
United Kingdom	14 (5.5)	146 (8.0)	160 (7.7)
USA	2 (0.8)	19 (1.1)	21 (1.0)
USSR		1 (0.1)	1 (0.0)
Yugoslavia		5 (0.3)	5 (0.2)
Unknown		1 (0.1)	1 (0.1)

^aColumn percentages calculated with NZ included

Table 1-18: Cohort remainder rate for University of Otago graduates^a

Graduation cohort	Total number of graduates	Number of graduates still practising	Cohort remainder rate (%)
1946-1950	128	1	0.8
1951-1955	175	2	1.1
1956-1960	176	9	5.1
1961-1965	188	32	17.0
1966-1970	239	100	41.8
1971-1975	212	115	54.2
1976-1980	272	172	63.2
1981-1985	269	199	74.0
1986-1990	224	150	67.0
1991-1995	247	167	67.6
1996	54	28	51.9
1997	52	30	57.7
1998	55	26	47.3
1999	58	28	48.3
2000	60	31	51.7
2001	60	32	53.3
2002	59	19	32.2
2003	56	30	53.6
2004	56	23	41.1
2005	60	30	50.0
2006	62	30	48.4
2007	61	26	42.6
2008	57	30	52.6
2009	55	38	69.1
2010	60	48	80.0
2011	58	60	103.4*

^a As mentioned previously, it is not possible to identify internationally-funded students who became New Zealand permanent residents during the course of their study and chose to remain in New Zealand subsequent to graduation.

Figure 1-3. Trends in the proportion of practising female dentists and overseas graduates with APCs from 1983 to 2012

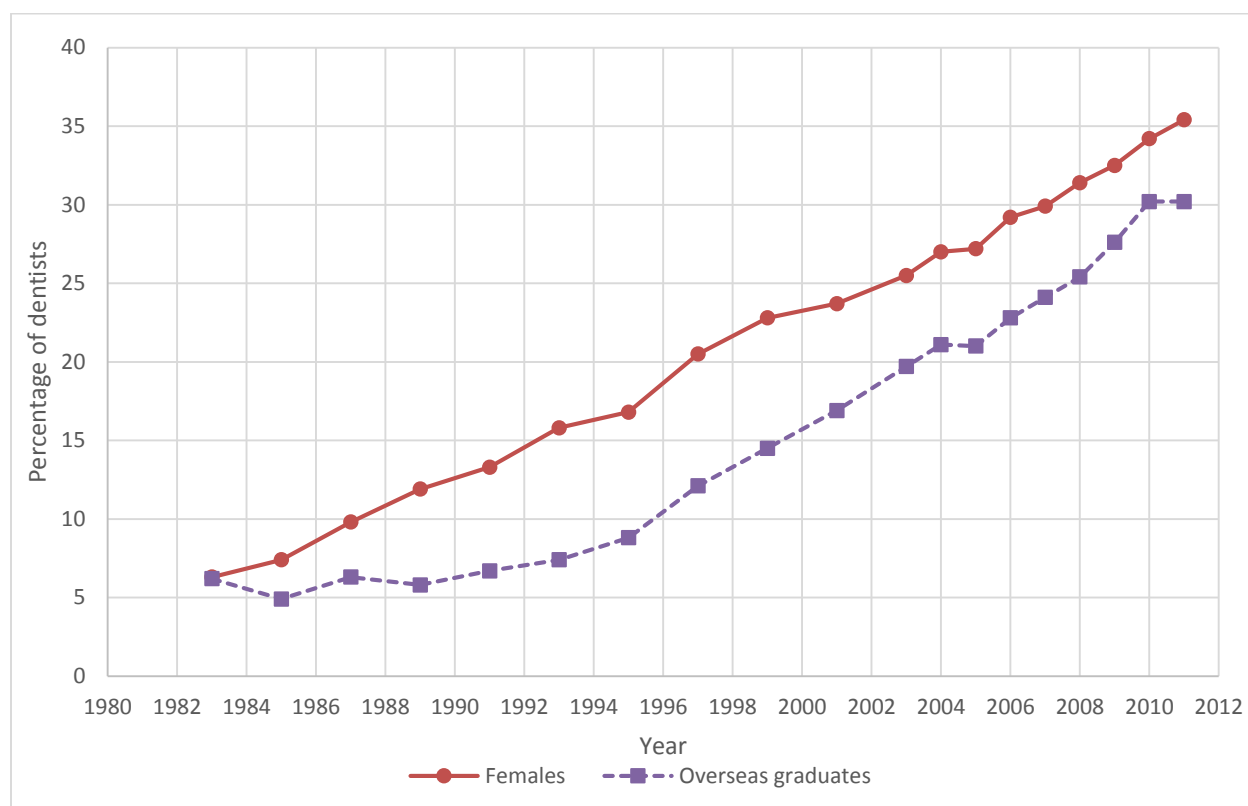


Table 1-19: Overseas dentists – NZDREX and equivalency, percentage of total dentists by year of first registration

Year of first registration in NZ	Overseas qualified dentists – NZDREX (col %)	Overseas qualified dentists – equivalency (col %)
1946-1950		
1951-1955		
1956-1960		
1961-1965		
1966-1970		1 (0.3)
1971-1975		6 (1.5)
1976-1980		5 (1.3)
1981-1985		4 (1.0)
1986-1990		24 (6.2)
1991-1995	13 (5.3)	20 (5.2)
1996	2 (0.8)	5 (1.3)
1997	19 (7.8)	6 (1.5)
1998	19 (7.8)	6 (1.5)
1999	17 (7.0)	2 (0.5)
2000	23 (9.4)	5 (1.3)
2001	15 (6.2)	6 (1.5)
2002	13 (5.3)	10 (2.6)
2003	11 (4.5)	17 (4.4)
2004	11 (4.5)	16 (4.1)
2005	16 (6.6)	32 (8.2)
2006	20 (8.2)	20 (5.2)
2007	26 (10.7)	20 (5.2)
2008	14 (5.7)	16 (4.1)
2009 ^a	6 (2.5)	81 (20.9)
2010	8 (3.3)	35 (9.0)
2011	11 (4.5)	51 (13.1)
Total	244	388

^a Reporting date changed to 30th September

Table 1-20: Dentists & Dental Specialists status by gender (trainees counted in general scope)

Specialist status	All dentists in NZ with APC Number of dentists	Gender differences	
		Men (Row %)	Women (Row %)
Specialists	255	189 (74.1)	66 (25.9)
Dentists	1830	1157 (63.2)	673 (36.8)
Total	2085	1346	739
Specialty			
Endodontics	23	17 (73.9)	6 (26.1)
Oral & Maxillofacial Surgery	40	40 (100.0)	
Oral Medicine	3	1 (33.3)	2 (66.7)
Oral Pathology	5	2 (40.0)	3 (60.0)
Oral Surgery	5	4 (80.0)	1 (20.0)
Orthodontics	89	64 (71.9)	25 (28.1)
Paediatric Dentistry	11	2 (18.2)	9 (81.8)
Periodontology	29	20 (69.0)	9 (31.0)
Prosthodontics	20	18 (90.0)	2 (10.0)
Public Health Dentistry	13	7 (53.8)	6 (46.2)
Restorative Dentistry	10	10 (100.0)	
Special Needs Dentistry	7	4 (57.1)	3 (42.9)

(Data source: Dental Register)

Table 1-21: Geographic distribution of dentists by Territorial Local Authority (TLA) area, for all dentists

TLA area	Number of general dentists (%)	Number of specialist dentists (%)	Total number of dentists (%)	FTE dentists [N reporting hours]
Far North	18 (1.0)	0	18 (0.9)	12.3 [17]
Whangarei	31 (1.7)	5 (2.0)	36 (1.7)	29.3 [35]
Kaipara	2 (0.1)	0	2 (0.1)	1.9 [2]
Auckland unitary authority	595 (32.5)	83 (32.5)	678 (32.5)	508.2 [625]
<i>Rodney</i>	<i>32 (1.7)</i>	<i>1 (0.4)</i>	<i>33 (1.6)</i>	<i>26.1 [31]</i>
<i>North Shore</i>	<i>116 (6.3)</i>	<i>22 (8.6)</i>	<i>138 (6.6)</i>	<i>104.6 [124]</i>
<i>Waitakere</i>	<i>56 (3.1)</i>	<i>7 (2.7)</i>	<i>63 (3.0)</i>	<i>50.2 [59]</i>
<i>Auckland</i>	<i>269 (14.7)</i>	<i>42 (16.5)</i>	<i>311 (14.9)</i>	<i>227.1 [287]</i>
<i>Manukau</i>	<i>93 (5.1)</i>	<i>8 (3.1)</i>	<i>101 (4.8)</i>	<i>77.6 [95]</i>
<i>Papakura</i>	<i>17 (0.9)</i>	<i>2 (0.8)</i>	<i>19 (0.9)</i>	<i>12.4 [16]</i>
<i>Franklin</i>	<i>12 (0.7)</i>	<i>1 (0.4)</i>	<i>13 (0.6)</i>	<i>10.2 [13]</i>
Thames-Coromandel	13 (0.7)	0	13 (0.6)	9.0 [12]
Hauraki	2 (0.1)	0	2 (0.1)	1.7 [2]
Waikato	2 (0.1)	0	2 (0.1)	2.0 [2]
Matamata-Piako	12 (0.7)	0	12 (0.6)	8.6 [10]
Hamilton	80 (4.4)	17 (6.7)	97 (4.7)	73.1 [87]
Waipa	16 (0.9)	0	16 (0.8)	11.7 [15]
Otorohanga	7 (0.4)	0	7 (0.3)	3.8 [5]
South Waikato	5 (0.3)	0	5 (0.2)	3.6 [5]
Waitomo	1 (0.1)	0	1 (0.0)	1.0 [1]
Taupo	13 (0.7)	1 (0.4)	14 (0.7)	8.7 [11]
Western BoP	10 (0.5)	1 (0.4)	11 (0.5)	9.1 [1]
Tauranga	61 (3.3)	5 (2.0)	66 (3.2)	51.3 [61]
Rotorua	22 (1.2)	3 (1.2)	25 (1.2)	17.0 [22]
Whakatane	9 (0.5)	0	9 (0.4)	6.0 [8]
Kawerau	1 (0.1)	0	1 (0.0)	1.0 [1]
Opotiki	1 (0.1)	0	1 (0.0)	1.0 [1]
Gisborne	10 (0.5)	1 (0.4)	11 (0.5)	9.3 [11]
Wairoa	4 (0.2)	0	4 (0.2)	2.0 [2]
Hastings	21 (1.1)	2 (0.8)	23 (1.1)	18.7 [22]
Napier	31 (1.7)	3 (1.2)	34 (1.6)	24.3 [30]
Central Hawkes Bay	3 (0.2)	0	3 (0.1)	2.5 [3]
New Plymouth	23 (1.3)	6 (2.4)	29 (1.4)	25.5 [28]
Stratford	1 (0.1)	0	1 (0.0)	0.9 [1]
South Taranaki	8 (0.4)	0	8 (0.4)	6.0 [8]
Ruapehu District	3 (0.2)	0	3 (0.1)	2.1 [3]
Whanganui	17 (0.9)	1 (0.4)	18 (0.9)	12.7 [15]
Rangitikei	2 (0.1)	0	2 (0.1)	1.7 [2]
Manawatu	5 (0.3)	0	5 (0.2)	4.5 [5]
Palmerston North	40 (2.2)	6 (2.4)	46 (2.2)	33.2 [39]
Tararua	3 (0.2)	0	3 (0.1)	2.9 [3]
Horowhenua	9 (0.5)	0	9 (0.4)	7.9 [9]
Kapiti Coast	13 (0.7)	0	13 (0.6)	10.5 [13]
Porirua	12 (0.7)	0	12 (0.6)	9.9 [12]
Upper Hutt	12 (0.7)	1 (0.4)	13 (0.6)	10.5 [13]
Lower Hutt	51 (2.8)	6 (2.4)	57 (2.7)	37.1 [47]
Wellington	125 (6.8)	17 (6.7)	142 (6.8)	103.4 [128]
Masterton	9 (0.5)	0	9 (0.4)	7.7 [9]
Carterton	4 (0.2)	0	4 (0.2)	3.2 [4]
South Wairarapa				
Tasman	18 (1.0)	0	18 (0.9)	11.9 [16]

Nelson	31 (1.7)	8 (3.1)	39 (1.9)	26.0 [36]
Marlborough	16 (0.9)	0	16 (0.8)	12.4 [14]
Kaikoura	1 (0.1)	0	1 (0.0)	0.8 [1]
Buller	1 (0.1)	0	1 (0.0)	1.0 [1]
Grey	7 (0.4)	0	7 (0.3)	4.1 [5]
Westland	1 (0.1)	0	1 (0.0)	0.8 [1]
Hurunui	0	0	0	0
Waimakariri	12 (0.7)	0	12 (0.6)	9.2 [11]
Christchurch	180 (9.8)	32 (12.5)	212 (10.2)	148.5 [189]
Selwyn	5 (0.3)	0	5 (0.2)	4.4 [5]
Ashburton	10 (0.5)	1 (0.4)	11 (0.5)	6.7 [7]
Timaru	13 (0.7)	2 (0.8)	15 (0.7)	12.1 [15]
Mackenzie	0	0	0	0
Waimate	0	0	0	0
Chatham Islands	0	0	0	0
Waitaki	20 (1.1)	1 (0.4)	21 (1.0)	14.4 [17]
Central Otago	9 (0.5)	0	9 (0.4)	6.5 [9]
Queenstown Lakes	12 (0.7)	1 (0.4)	13 (0.6)	10.0 [13]
Dunedin	112 (8.1)	41 (16.1)	153 (7.3)	92.2 [124]
Clutha	4 (0.2)	0	4 (0.2)	3.8 [4]
Southland	2 (0.1)	0	2 (0.1)	1.8 [2]
Gore	5 (0.3)	1 (0.4)	6 (0.3)	4.2 [5]
Invercargill	31 (1.7)	5 (2.0)	36 (1.7)	24.6 [29]
TLA Code not available	33	5	38	
Total	1830	255	2085	1492.2 [1834]

(Data source: Dental Register & Workforce Survey)

Table 1-22. Population to dentist and population to FTE dentist ratios by TLA

	Total population	Population aged 15+ years ^a	Population aged 15+ years-to- dentist ratio ^b	Dentists per 100,000 population aged 15+ ^b	Population aged 15+ years-to-FTE- dentist ratio ^a	FTE per 100,000 population aged 15+ ^a
Far North	60,100	46,300	2,572.2	38.9	3,764.2	26.6
Whangarei	82,100	64,100	1,780.6	56.2	2,187.7	45.7
Kaipara	20,200	16,000	8,000.0	12.5	8,421.1	11.9
Auckland	1,459,600	1,148,100	1,693.4	59.1	2,259.1	44.3
Thames-Coromandel	27,200	22,700	1,746.2	57.3	2,522.2	39.6
Hauraki	18,650	14,900	7,450.0	13.4	8,764.7	11.4
Waikato	65,400	49,500	24,750.0	4.0	24,750.0	4.0
Matamata-Piako	32,400	25,300	2,108.3	47.4	2,941.9	34.0
Hamilton	145,600	113,900	1,174.2	85.2	1,558.1	64.2
Waipa	47,700	37,300	2,331.3	42.9	3,188.0	31.4
Otorohanga	9,500	7,340	1,048.6	95.4	1,931.6	51.8
South Waikato	23,300	17,600	3,520.0	28.4	4,888.9	20.5
Waitomo	9,590	7,240	7,240.0	13.8	7,240.0	13.8
Taupo	34,300	26,900	1,921.4	52.0	3,092.0	32.3
Western BoP	45,600	36,300	3,300.0	30.3	3,989.0	25.1
Tauranga	117,200	92,800	1,406.1	71.1	1,809.0	55.3
Rotorua	68,800	52,300	2,092.0	47.8	3,076.5	32.5
Whakatane	34,400	26,300	2,922.2	34.2	4,383.3	22.8
Kawerau	6,890	5,120	5,120.0	19.5	5,120.0	19.5
Opotiki	9,070	6,940	6,940.0	14.4	6,940.0	14.4
Gisborne	46,800	35,100	3,190.9	31.3	3,774.2	26.5
Wairoa	8,530	6,390	1,597.5	62.6	3,195.0	31.3
Hastings	76,200	58,500	2,543.5	39.3	3,128.3	32.0
Napier	59,000	46,800	1,376.5	72.6	1,925.9	51.9
Central Hawkes Bay	13,450	10,600	3,533.3	28.3	4,240.0	23.6
New Plymouth	75,400	60,000	2,069.0	48.3	2,352.9	42.5
Stratford	9,160	7,160	7,160.0	14.0	7,955.6	12.6
South Taranaki	27,400	21,100	2,637.5	37.9	3,516.7	28.4
Ruapehu District	12,950	9,950	3,316.7	30.2	4,738.1	21.1
Whanganui	43,800	34,700	1,927.8	51.9	2,732.3	36.6
Rangitikei	14,700	11,600	5,800.0	17.2	6,823.5	14.7
Manawatu	28,000	22,000	4,400.0	22.7	4,888.9	20.5
Palmerston North	82,800	66,000	1,434.8	69.7	1,988.0	50.3
Tararua	17,750	13,750	4,583.3	21.8	4,741.4	21.1
Horowhenua	31,000	24,800	2,755.6	36.3	3,139.2	31.9
Kapiti Coast	50,200	40,900	3,146.2	31.8	3,895.2	25.7
Porirua	53,000	39,800	3,316.7	30.2	4,020.2	24.9
Upper Hutt	41,300	32,800	2,523.1	39.6	3,123.8	32.0
Lower Hutt	101,700	79,500	1,394.7	71.7	2,142.9	46.7
Wellington	195,400	161,100	1,134.5	88.1	1,558.0	64.2
Masterton	24,000	19,100	2,122.2	47.1	2,480.5	40.3
Carterton	8,130	6,490	1,622.5	61.6	2,028.1	49.3
South Wairarapa	9,690	7,780		-		-

Tasman	48,200	38,400	2,133.3	46.9	3,226.9	31.0
Nelson	47,500	38,500	987.2	101.3	1,480.8	67.5
Marlborough	44,700	36,600	2,287.5	43.7	2,951.6	33.9
Kaikoura	3,760	3,100	3,100.0	32.3	3,875.0	25.8
Buller	10,500	8,550	8,550.0	11.7	8,550.0	11.7
Grey	13,900	11,100	1,585.7	63.1	2,707.3	36.9
Westland	8,680	7,090	7,090.0	14.1	8,862.5	11.3
Hurunui	11,550	9,300	-	-	-	-
Waimakariri	49,400	39,000	3,250.0	30.8	4,239.1	23.6
Christchurch	362,300	295,500	1,393.9	71.7	1,989.9	50.3
Selwyn	42,900	33,300	6,660.0	15.0	7,568.2	13.2
Ashburton	31,000	24,700	2,245.5	44.5	3,686.6	27.1
Timaru	44,900	36,600	2,440.0	41.0	3,024.8	33.1
Mackenzie	4,210	3,390	-	-	-	-
Waimate	7,680	6,280	-	-	-	-
Chatham Islands	640	510	-	-	-	-
Waitaki	21,200	17,300	823.8	121.4	1,201.4	83.2
Central Otago	18,150	14,850	1,650.0	60.6	2,284.6	43.8
Queenstown Lakes	28,400	23,300	1,792.3	55.8	2,330.0	42.9
Dunedin	123,100	103,000	673.2	148.5	1,117.1	89.5
Clutha	17,500	13,850	3,462.5	28.9	3,644.7	27.4
Southland	30,000	23,400	11,700.0	8.5	13,000.0	7.7
Gore	12,450	9,950	1,658.3	60.3	2,369.0	42.2
Invercargill	53,200	42,400	1,177.8	84.9	1,723.6	58.0
Missing/outside TLA	90	80	-	-	-	-
Total	4,384,000	3,473,300	1,665.9	60.0	2,327.6	43.0

^a Population estimate as at June 2011

^b Where hours are reported

(Data source: Statistics New Zealand. Due to rounding, individual figures may not always sum to the stated totals.)

Table 1-23: Population by District Health Board (DHB) area

District Health Board (2013 areas)	Total population estimate 2011	Estimated population aged 15+ years in 2011
Northland	162,500	126,500
Waitemata	538,500	426,700
Auckland	451,700	367,600
Counties-Manukau	485,600	366,100
Waikato ^a	371,300	289,900
Lakes	103,100	79,200
Bay of Plenty	213,200	167,500
Tairāwhiti	46,800	35,100
Hawke's Bay	112,000	88,300
Taranaki	157,800	122,800
Whanganui	63,000	49,700
MidCentral	167,800	133,200
Hutt	142,900	112,200
Capital and Coast ^b	290,400	235,200
Wairarapa	41,800	33,300
Nelson-Marlborough	140,500	113,600
West Coast	33,100	26,800
Canterbury	500,900	405,000
South Canterbury	56,700	46,200
Southern	303,900	248,000
Total	4,384,000	3,472,900

^aIncludes all of the Ruapehu TLA (part of which is usually included in Whanganui DHB – affects Ohakune dentists)

^bIncludes all of the Kapiti Coast TLA (part of which is usually included in MidCentral DHB – affects Otaki dentists)
(Data source: Statistics New Zealand. Due to rounding, individual figures may not always sum to the stated totals.)

Table 1-24: Distribution of practising dentists by District Health Board (DHB), 2011 population estimates (2013 base)

DHB (2013 areas)	No of dentists with APC ^b	Population aged 15+ to dentist ratio ^a	Dentists per 100,000 population 15+ ^a
Northland	56	2,258.9	44.3
Waitemata	234	1,823.5	54.8
Auckland	311	1,182.0	84.6
Counties-Manukau	133	2,752.6	36.3
Waikato ^c	158	1,834.8	54.5
Lakes	39	2,030.8	49.2
Bay of Plenty	88	1,903.4	52.5
Tairāwhiti	11	3,190.9	31.3
Hawke's Bay	64	1,379.7	72.5
Taranaki	38	3,231.6	30.9
Whanganui	20	2,485.0	40.2
Midcentral	63	2,114.3	47.3
Hutt	70	1,602.9	62.4
Capital and Coast ^d	167	1,408.4	71.0
Wairarapa	13	2,561.5	39.0
Nelson-Marlborough	73	1,556.2	64.3
West Coast	9	2,977.8	33.6
Canterbury	230	1,760.9	56.8
South Canterbury	26	1,776.9	56.3
Southern ^e	244 [187]	1,016.4 [1326.2]	98.4 [75.4]
Unknown location	38		
Overall average	2085	1665.7	60.0

^aCalculated using the population aged 15 years (Table 1-23)

^bIncludes all dentists, regardless of employment type, where working hours were given (University dental school dentists and dentists who did not report their main employment type have been included). Data in square brackets for Otago and Southland / Southern DHB exclude dentists who reported the University of Otago as their primary employer. Note that 265 dentists did not report a primary employer, and 8 dentists outside the Otago/Southland area also reported the University of Otago Faculty of Dentistry as their primary employer.

^cIncludes all of the Ruapehu TLA (part of which is usually included in Whanganui DHB – affects Ohakune dentists)

^dIncludes all of the Kapiti Coast TLA (part of which is usually included in MidCentral DHB – affects Otaki dentists)

^eMerged area for Otago/Southland DHBs

(Data sources: Workforce Survey and Statistics New Zealand)

Section 2: **The Dental Therapist Workforce**

Description the dental therapy workforce

A total of 830 dental therapists were listed on the Dental Council register, up from 785 for the previous reporting period. Of these, 791 held a current APC, up from 740 in the previous reporting period, while 39 dental therapists did not hold an APC. Subsequent analyses are restricted to those practitioners with current APCs. There were a total of 198 dental hygienists, 1 dentist, and 1 dental technician who held concurrent APCs in those respective scopes of practice as well as dental therapy.

Dental therapists' ages ranged from 21 to 72 years, with a mean age of 46.0 years (SD, 13.7) and a median of 50 years, slightly lower than the previous year (mean=48; median=51). Data on the dental therapists' distribution across the various age groups are presented in Table 2-1.

Slightly fewer than half of the active dental therapists were aged 50 or over, a proportional decrease by almost 5%. This is, in part, has been due to a large increase (53) in the number of dental therapists in the 20-24 and 25-29 year-old age bands. However, these younger dental therapists are more likely to be 'dual-qualified' and are also practising as dental hygienists. There were 30 male dental therapists, an increase of five over the previous year.

Full-time practice was reported by 552 dental therapists (69.8%). Of the 239 (30.2%) who reported part-time practice: 20 (8.4%) were doing non-dental work; 20 (8.4%) reported that there was not enough dental work available; 4 (1.7%) reported they were seeking dental work; 3 (1.3%) were semi-retired from practice; 52 (21.8%) cited parental responsibilities; 105 (43.9%) did so by personal choice; and 35 (14.6%) indicated other reasons, including management, teaching, or study responsibilities as well as health reasons (e.g. ACC) or dual dental therapy/hygiene work. Analysis of working patterns identified that at least 60 dental therapists were working at least part-time as dental hygienists (this was not necessarily identified by the 'part-time' question, and it is likely that the true number would be higher than this).

Of the 791 dental therapists with APCs, a total of 27 (3.4%) reported they were not currently practising; 3 were practising overseas, 1 was overseas but not practising. The remainder gave reasons such as studying full-time, parental duties, and seeking work.

Among the 71.2% of dental therapists who reported their working place, there appears to have been a large decrease in the number and proportion of dental therapists who report their main work type as employees of DHBs. Nearly half of dental therapists do not report their primary work type as working for DHBs. Over one in four did not report their primary workplace.

The total hours worked by dental therapists ranged from 0 to 100 hours per week, with a mean of 31.9 (SD 10.4) among the 637 dental therapists who reported working one or more hours per week. The categorised data are presented in Table 2-5 below.

A total of 21 dental therapists with current APCs reported they were currently undertaking postgraduate training, and a further three who did not have current APCs were also undertaking postgraduate training. Some 17 of those expected to practise in New Zealand at the completion of that training. Postgraduate training courses that dental therapists reported studying were varied, and many were studying courses that are unrelated to dental therapy, such as teaching qualifications.

The number of practising dental therapists practising in the various SOPs were: 791 (100%) in general dental therapy, 716 (90.5%) in diagnostic radiography in dental therapy practice; 642 (81.2%) in radiography in dental therapy practice; 394 (49.8%) in pulpotomies in dental therapy practice; 352 (44.5%) in stainless steel crowns in dental therapy practice; and 14 (1.8%) in adult dental care in dental therapy practice.

The number of dental therapists practising in each of those available SOPs are presented by DHB in Table 2-6. Data on the geographic distribution of dental therapists are presented in Table 2-6, Table 5-1, and Table 5-2.

Dental therapy workforce data tables

Table 2-1: Age distribution of practising dental therapists in years

Age group	Number of males	Number of females	Total number	Column percentage
20 to 24	7	73	80	10.1
25 to 29	9	78	87	11.0
30 to 34	6	44	50	6.3
35 to 39	4	42	46	5.8
40 to 44	2	69	71	9.0
45 to 49	1	63	64	8.1
50 to 54	1	110	111	14.0
55 to 59	0	153	153	19.3
60 to 64	0	99	99	12.5
65+	0	30	30	3.8
Total	30 (3.8)	761 (96.2)	791	

Therapist age calculated as at 31 March 2012

Table 2-2: Ethnicity (primary and secondary) among dental therapists

Ethnicity	Primary (%)	Secondary	Total ^{a b}
NZ European	543 (71.2)		543 (68.6)
Māori	35 (4.4)	52	87 (11.0)
Other European	17 (2.1)	4	21 (2.7)
Samoan	6 (0.8)	1	7 (0.9)
Niuean	1 (0.1)	1	2 (0.3)
Cook Island Māori		1	1 (0.1)
Tokelauan	1 (0.1)		1 (0.1)
Fijian	5 (0.6)		5 (0.6)
Other Pacific Peoples	2 (0.3)		2 (0.3)
Other East Asian	6 (0.8)		6 (0.8)
Chinese	28 (3.5)	3	31 (3.9)
Indian	16 (2.0)	5	21 (2.7)
Other Asian	18 (2.3)	3	21 (2.7)
Other	22 (2.8)	3	25 (3.2)
No response to question	91 (11.5)		91
Total	790		863 ^a

^a Column may sum to greater than 791 due to the double-reporting of ethnicity

Table 2-3: Self-identification of “other” primary ethnicity among dental therapists^a

Africa		Other European		Asia	
African	2	Danish	1	Afghani	1
Egyptian	1	Dutch	1	Assyrian	1
Somalian	1	French Middle-Eastern	1	Burmese	1
South African	5	Georgian	1	Iraqi	2
Zimbabwean	1	Hungarian	1	Japanese	2
		Russian	3	Korean	8
North American		Serbian	1	Malaysian Chinese	1
Latin American	1	Ukrainian	1	Middle Eastern	4
				Pakistani	1
Great Britain		Other Oceania		Sri Lankan	1
British/UK	2	Australian	3	Taiwanese	3
English	1	Fijian Indian	1	Thai	2
		Filipino	2	Vietnamese	1
New Zealand		Rotuman	1		
New Zealander	4				

^aNote that this is a self-identification.

Table 2-4: Type of practice among dental therapists

Type of practice ^a	Number (%)
Private practice ^b	99 (17.6)
<i>Self-employed, solo</i>	9 (1.6)
<i>Self-employed, group</i>	21 (3.7)
<i>Employee</i>	69 (12.3)
DHB	435 (77.3)
Government Dept, not MoH	2 (0.4)
University Dental School	12 (2.1)
Iwi	4 (0.7)
MoH	7 (1.2)
Other	4 (0.7)
Total	563 (71.2)
No reply to question	228 (28.8)

^aNote: only the information on the primary employer was analysed
(Data source: Workforce Survey)

Table 2-5: Hours worked per week by dental therapists

Number of hours worked	Number of dental therapists (%)
1 to 10	26 (4.1)
11 to 20	50 (7.8)
21 to 30	153 (24.0)
31 to 40	402 (63.1)
41 to 50	1 (0.2)
51 to 60	1 (0.2)
More than 60	4 (0.6)
Total	637 (80.5)
Nil or no response	154 (19.5)
Mean no. of hours/week (sd)	31.9 (10.4)
Range	0 to 80

^a One outlier was recoded to the next-highest number, 80.

Table 2-6. Dental Therapists' areas of practise, by District Health Board

DHB area	General dental therapy SOP (%)	Diagnostic radiography SOP ^a (%)	Radiography SOP ^a (%)	Pulpotomies (%)	Stainless steel crowns (%)	Adult dental care (%)	Total number of dental therapists with APCs by DHB
Northland	36 (100.0)	36 (100.0)	30 (83.3)	13 (36.1)	25 (69.4)	2 (5.6)	36
Waitemata	124 (100.0)	118 (95.2)	94 (75.8)	81 (65.3)	72 (58.1)	0 (0.0)	124
Auckland	70 (100.0)	64 (91.4)	53 (75.7)	41 (58.6)	37 (52.9)	3 (4.3)	70
Counties-Manukau	81 (100.0)	70 (86.4)	58 (71.6)	51 (63.0)	48 (59.3)	0 (0.0)	81
Waikato	67 (100.0)	64 (95.5)	57 (85.1)	54 (80.6)	43 (64.2)	0 (0.0)	67
Bay of Plenty	42 (100.0)	40 (95.2)	38 (90.5)	17 (40.5)	9 (21.4)	0 (0.0)	42
Lakes	24 (100.0)	24 (100.0)	23 (95.8)	5 (20.8)	3 (12.5)	0 (0.0)	24
Tairāwhiti	9 (100.0)	8 (88.9)	8 (88.9)	1 (11.1)	1 (11.1)	0 (0.0)	9
Hawke's Bay	29 (100.0)	28 (96.6)	27 (93.1)	3 (10.3)	15 (51.7)	1 (3.4)	29
Taranaki	22 (100.0)	19 (86.4)	19 (86.4)	14 (63.6)	11 (50.0)	3 (13.6)	22
Whanganui	21 (100.0)	17 (81.0)	16 (76.2)	11 (52.4)	14 (66.7)	2 (9.5)	21
MidCentral	29 (100.0)	25 (86.2)	22 (75.9)	4 (13.8)	3 (10.3)	1 (3.4)	29
Capital and Coast	37 (100.0)	28 (75.7)	25 (67.6)	13 (35.1)	13 (35.1)	0 (0.0)	37
Hutt	29 (100.0)	26 (89.7)	26 (89.7)	7 (24.1)	7 (24.1)	0 (0.0)	29
Wairarapa	8 (100.0)	4 (50.0)	5 (62.5)	0 (0.0)	0 (0.0)	0 (0.0)	8
Nelson-Marlboro.	21 (100.0)	20 (95.2)	21 (100.0)	19 (90.5)	1 (4.8)	2 (9.5)	21
West Coast	5 (100.0)	5 (100.0)	5 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	5
Canterbury	54 (100.0)	50 (92.6)	50 (92.6)	8 (14.8)	5 (9.3)	0 (0.0)	54
South Canterbury	12 (100.0)	11 (91.7)	11 (91.7)	1 (8.3)	1 (8.3)	0 (0.0)	12
Otago	45 (100.0)	39 (86.7)	35 (77.8)	34 (75.6)	30 (66.7)	0 (0.0)	45
Southland	19 (100.0)	16 (84.2)	14 (73.7)	13 (68.4)	10 (52.6)	0 (0.0)	19
Unknown area	7 (100.0)	4 (57.1)	5 (71.4)	4 (57.1)	4 (57.1)	0 (0.0)	7
Total	791 (100.0)	716 (90.5)	642 (81.2)	394 (49.8)	352 (44.5)	14 (1.8)	791

^a The distinction is made here between “diagnostic radiography”, which involves the taking and interpreting of radiographs, and “radiography”, which is the taking of radiographs.

(Data source: Dental Register)

Section 3: **The Dental Hygienist Workforce**

Description the dental hygiene workforce

Of the 573 registered as dental hygienists, 474 held the scope of general dental hygiene, while the remainder held the scope of orthodontic auxiliary. Eight practitioners held both scopes.

The ages of the 474 practitioners who held the scope of general dental hygiene ranged from 21 to 69 years, with a mean age of 37.3 (sd 10.9) years and a median of 37 years. There has been a considerable decrease in mean hygienist age by about four years since 2010, most likely driven by the ‘dual qualified’ oral health graduates, that can register in both dental hygiene and dental therapy. The dental hygienist workforce continues to be dominated by women; however, the number of males registered as hygienists more than tripled since 2010, from 7 males to 24 males (5.0% of the general dental hygiene workforce. Almost half of hygienists self-identified as NZ European (46.6%), followed by Māori (5.5%), Chinese (4.2%) and Other European (4.2%).

The ages of the 99 practitioners who held the scope of orthodontic auxiliary practice ranged from 21 to 70 years, with a mean age of 45.8 (sd 11.1) years and a median of 47 years. The orthodontic auxiliary workforce is also dominated by women; two males (2.0%) were registered as orthodontic auxiliaries. Orthodontic auxiliaries follow a similar ethnic self-identification than hygienists, with the largest group NZ European (69.7%), 2 identifying as Māori, and 7 identifying as Other Asian.

Part-time practice was reported by 261 (45.5%), a decrease from 53.7% two years before. Of the 261 who reported part-time practice: 10 (3.8%) were doing non-dental work; 39 (14.9%) reported that there was not enough dental work available; 3 (1.1%) reported that they were seeking dental work; 2 (0.8%) were semi-retired; 91 (34.9%) cited parental responsibilities; 88 (33.7%) did so by personal choice; and 28 (10.7%) indicated other reasons, the most common being contractual arrangements.

A total of 30 had current APCs but reported they were not currently practising; of those, 1 was practising overseas and 3 were overseas but not practising. Of the remaining 26, eight

were working in another profession, nine were undertaking full-time study, two had parental duties, six were seeking work, and one reported retirement).

The majority of hygienists were employees in private practice (Table 3-3), but nearly one-third of dental hygienists who declared their employment, were self-employed. Data on the geographic distribution of dental hygienists are presented in Table 5-1, and Table 5-2.

An analysis of hours worked by hygienists is presented in Table 3-4. The total hours worked by general hygienists ranged from 2 to 46 per week, with a mean of 25.8 hours.

Some form of current postgraduate training was reported by 7 hygienists. Of these, 1 was studying for each of the following: Bachelor of Health Science, Certificate in Oral Sleep Medicine, Diploma in Tertiary Teaching, Diploma in Public Health, Local Analgesia, Local Anaesthetic, and Orthodontic Auxiliary training.

Data on scopes of practice are presented by occupational category in Table 3-5.

Dental hygiene workforce data tables

Table 3-1: Age distribution of practising dental hygienists and orthodontic auxiliaries, by occupational category

Age group	Dental hygienists	Orthodontic auxiliaries
Under 20	0	0
20 to 24	71 (15.0)	2 (2.0)
25 to 29	83 (17.5)	3 (3.0)
30 to 34	62 (13.1)	17 (17.2)
35 to 39	71 (15.0)	14 (14.1)
40 to 44	72 (15.2)	11 (11.1)
45 to 49	41 (8.6)	11 (11.1)
50 to 54	39 (8.2)	16 (16.2)
55 to 59	21 (4.4)	16 (16.2)
60 to 64	11 (2.3)	4 (0.0)
65+	3 (0.6)	5 (5.1)
Total	474	99

Hygienist age calculated as at 31 March 2012

Table 3-2: Ethnicity (primary and secondary) among practising hygienists and orthodontic auxiliaries

Ethnicity	Primary	Secondary	Total ^a
Dental hygienists			
NZ European	221 (46.6)		221 (46.6)
Māori	7 (1.5)	19	26 (5.5)
Other European	54 (11.4)	1	55 (11.6)
Samoan	2 (0.4)	1	3 (0.6)
Cook Is Māori			0 (0.0)
Other Pacific	3 (0.6)		3 (0.6)
Other East Asian	9 (1.9)		9 (1.9)
Chinese	18 (3.8)	2	20 (4.2)
Indian	14 (3.0)		14 (3.0)
Other Asian	18 (3.8)	1	19 (4.0)
Other	35 (7.3)	4	39 (8.2)
No response to question	93 (19.6)		93 (19.6)
Orthodontic auxiliaries			
NZ European	69 (70.7)		69 (69.7)
Māori		2	2 (2.0)
Other European	4 (4.0)		4 (4.0)
Samoan			0 (0.0)
Cook Is Māori	1 (1.0)		1 (1.0)
Other Pacific			0 (0.0)
Other East Asian			0 (0.0)
Chinese	1 (1.0)		1 (1.0)
Indian	1 (1.0)		1 (1.0)
Other Asian	7 (7.1)		7 (7.1)

Other	5 (5.1)	5 (5.1)
No response to question	11 (11.1)	11 (11.1)
<hr/>		
Total	573 ^b	

^a Multiple ethnicities can be selected.

Table 3-3: Type of practice, by occupational category

Type of practice	Primary employer	Secondary employer
<hr/>		
<i>Dental hygienists</i>		
DHB/MoH	37 (10.9)	3
Private practice self-employed	106 (31.2)	30
Private practice employed	188 (55.3)	25
University Dental School	9 (2.6)	1
Total	340	
Not stated	134	
<hr/>		
<i>Orthodontic auxiliaries</i>		
DHB/MoH	3 (3.8)	1
Private practice self-employed	12 (15.0)	1
Private practice employed	65 (81.3)	2
University Dental School	0	
Total	80	
Not stated	19	

(Data source: Workforce Survey)

Table 3-4: Hours worked per week by dental hygienists

No. of hours worked	No. of general hygienists (%)
1 to 10	37 (11.6)
11 to 20	76 (23.8)
21 to 30	79 (24.7)
31 to 40	122 (38.1)
41 to 50	6 (1.9)
51 to 60	0 (0.0)
Total	320
Mean no. of hours/week (sd)	25.8 (10.7)
Range	2 – 46
Nil or no response	154

^a Data for hours worked was only available for general hygienists

Table 3-5: Hygiene scopes of practice^a

Scope of practice	General hygienists	Orthodontic Auxiliaries
General dental hygiene	474 (100.0)	8 (8.1)
Extra-oral radiography	129 (27.2)	49 (49.5)
Intra-oral radiography	305 (64.3)	49 (49.5)
Local anaesthetic	264 (55.7)	
Orthodontic auxiliary practice	8 (1.7)	99 (100.0)
Orthodontic procedures in hygiene	139 (29.3)	

Section 4: **The Dental Technician Workforce**

Description of dental technician workforce¹

Of the 391 individuals listed in the dental technology scopes on the Register, 340 (87.0%) had a current APC (16 fewer technicians than the previous year). Of the 340 registered dental technicians, 177 (52.1%) were registered in the clinical dental technology SOP, the number of clinical dental technicians being greater than the number of dental technicians for the first time. Unless otherwise indicated, all subsequent analyses pertain to the 340 individuals with current APCs.

Overall, there were 258 males (75.9%) and 82 females (24.1%). The ages of dental technicians ranged from 22 to 81, with a mean age of 46.3 years (sd, 12.8) and a median of 46 years. Data on technicians' distribution across the various age groups are presented (by occupational group) in Table 4-1.

About one in every two technicians, 171 (50.3%), self-identified as NZ European. Of the reported remainder, there were 10 Māori (2.9%), 52 'Other European' (15.3%), 2 Samoans (0.6%), 1 Tongan (0.3%), 1 Niuean (0.3%), 5 Fijians (1.5%), 18 Chinese (5.3%), 10 'Other East Asians' (2.9%), 3 Indians (0.9%), 31 'Other Asian' (9.1%), and 27 of 'other' ethnicities (7.9%). The dominant groups in the 'other' categories were Japanese (21), Germans (19), Koreans (16), South Africans (14), Britons (8), and 'New Zealanders' (7). Ethnicity was unknown for 24 dental technicians. The total sums to greater than 340 due to some individuals identifying with multiple ethnic groups.

¹ *Dental technicians'* major role is in processes and procedures associated with the design, manufacture and repair of fixed and removable oral and extra-oral appliances and prostheses prescribed by a practising dental specialist, dentist, clinical dental technician, medical practitioner or other practising health practitioner. A more detailed description of these dental technicians and their SOPs can be found on the Dental Council website.

Clinical dental technicians undertake those roles, as well as the fitting of complete removable dentures and the fitting of some other types of removable dentures, oral and extra-oral appliances under specific conditions set out in their detailed SOP. Clinical dental technicians also have an additional SOP available for implant-supported overdentures. A more detailed description of clinical dental technicians and their SOPs can be found on the Dental Council website.

Part-time practice was reported by 49 respondents (14.4%); this included 16 dental technicians and 33 clinical dental technicians. The main reasons for part-time practice were that practitioners were doing non-dental work (n=3, 6.1%); not enough dental work available (n=12, 24.5%); seeking dental work (n=2, 4.1%) being semi-retired from practice (n=5, 10.2%); parental responsibilities (n=8, 16.3%); personal choice (n=8, 16.3%); and other reasons, particularly teaching and postgraduate study (N=11, 22.4%).

Of those with APCs, a total of 13 reported they were not currently practising; of those, 4 were working in another health profession, 2 were working in another non-health profession, 3 were full-time students, 3 cited parental duties, and 1 was recently retired.

Proportionally more clinical dental technicians were in self-employed private practice than in employed private practice, while dental technicians were more evenly spread across self-employed and employed private practice; detail is provided in Table 4-2.

Some form of postgraduate training during the last year was reported by 19 respondents (5.6%). All but two studied for post-graduate diplomas in clinical dental technology. Of the remainder, one was completing an MSc, and one was completing a PhD.

Of the clinical dental technicians, 17 (9.6%) were registered in the implant overdentures in clinical dental technology scope.

Data on the geographic distribution of dental technicians are presented in Table 5-1, and Table 5-2.

Dental technician workforce data tables

Table 4-1: Age group and occupational group

	Dental technicians	Clinical dental technicians
20 to 24	5 (3.1)	1 (0.6)
25 to 29	16 (9.8)	19 (10.7)
30 to 34	26 (16.0)	12 (6.8)
35 to 39	23 (14.1)	13 (7.3)
40 to 44	24 (14.7)	19 (10.7)
45 to 49	26 (16.0)	24 (13.6)
50 to 54	19 (11.7)	23 (13.0)
55 to 59	14 (8.6)	21 (11.9)
60 to 64	8 (4.9)	21 (11.9)
65+	2 (1.2)	24 (13.6)
Total	163	177

Technician age calculated as at 31 March 2012

Table 4-2: Type of practice

	Dental technology	Clinical dental technology	Overall ^a
MoH or DHB	7 (5.0)	7 (4.2)	14 (4.6)
Private self-employed	74 (53.2)	124 (75.2)	198 (65.1)
Private employed	51 (36.7)	26 (15.8)	77 (25.3)
University Dent School	7 (5.0)	8 (4.8)	15 (4.9)
Total ^a	139	165	304
Unknown	24	12	36

^a Sum greater than the total

Section 5: Dentist, hygienist, therapist, and technician distributions and population ratios.

Table 5-1. Number of dentists, dental hygienists, dental therapists, and dental technicians by TLA

TLA area	Number of dentists (%)	Number of dental hygienists ^a (%)	Number of dental therapists (%)	Number of dental technicians (%)
Far North	18 (0.9)	8 (1.4)	15 (1.9)	2 (0.6)
Whangarei	36 (1.7)	13 (2.3)	19 (2.4)	8 (2.4)
Kaipara	2 (0.1)	0 (0.0)	2 (0.3)	0 (0.0)
Auckland unitary authority	678 (32.5)	236 (41.2)	275 (34.8)	133 (39.1)
<i>Rodney</i>	<i>33 (1.5)</i>	<i>15 (2.6)</i>	<i>12 (1.5)</i>	<i>10 (2.9)</i>
<i>North Shore</i>	<i>138 (5.6)</i>	<i>41 (7.2)</i>	<i>50 (6.3)</i>	<i>45 (13.2)</i>
<i>Waitakere</i>	<i>63 (2.7)</i>	<i>26 (4.5)</i>	<i>62 (7.8)</i>	<i>9 (2.6)</i>
<i>Auckland</i>	<i>311 (12.9)</i>	<i>96 (16.8)</i>	<i>70 (8.8)</i>	<i>47 (13.8)</i>
<i>Manukau</i>	<i>101 (4.5)</i>	<i>45 (7.9)</i>	<i>57 (7.2)</i>	<i>13 (3.8)</i>
<i>Papakura</i>	<i>19 (0.8)</i>	<i>6 (1.0)</i>	<i>12 (1.5)</i>	<i>8 (2.4)</i>
<i>Franklin</i>	<i>13 (0.6)</i>	<i>7 (1.2)</i>	<i>12 (1.5)</i>	<i>1 (0.3)</i>
Thames-Coromandel	13 (0.6)	3 (0.5)	7 (0.9)	1 (0.3)
Hauraki	2 (0.1)	0 (0.0)	1 (0.1)	0 (0.0)
Waikato	2 (0.1)	1 (0.2)	3 (0.4)	2 (0.6)
Matamata-Piako	12 (0.6)	0 (0.0)	3 (0.4)	0 (0.0)
Hamilton	97 (4.7)	14 (2.4)	36 (4.6)	12 (3.5)
Waipa	16 (0.8)	6 (1.0)	7 (0.9)	1 (0.3)
Otorohanga	7 (0.3)	1 (0.2)	3 (0.4)	0 (0.0)
South Waikato	5 (0.2)	2 (0.3)	1 (0.1)	1 (0.3)
Waitomo	1 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)
Taupo	14 (0.7)	1 (0.2)	5 (0.6)	4 (1.2)
Western BoP	11 (0.5)	0 (0.0)	2 (0.3)	1 (0.3)
Tauranga	66 (3.2)	19 (3.3)	28 (3.5)	10 (2.9)
Rotorua	25 (1.2)	5 (0.9)	19 (2.4)	2 (0.6)
Whakatane	9 (0.4)	3 (0.5)	8 (1.0)	2 (0.6)
Kawerau	1 (0.0)	0 (0.0)	1 (0.1)	1 (0.3)
Opotiki	1 (0.0)	0 (0.0)	3 (0.4)	0 (0.0)
Gisborne	11 (0.5)	4 (0.7)	9 (1.1)	2 (0.6)
Wairoa	4 (0.2)	1 (0.2)	5 (0.6)	0 (0.0)
Hastings	23 (1.1)	7 (1.2)	15 (1.9)	3 (0.9)
Napier	34 (1.6)	4 (0.7)	8 (1.0)	9 (2.6)
Central Hawkes Bay	3 (0.1)	0 (0.0)	1 (0.1)	1 (0.3)
New Plymouth	29 (1.4)	6 (1.0)	17 (2.1)	5 (1.5)
Stratford	1 (0.0)	0 (0.0)	2 (0.3)	0 (0.0)
South Taranaki	8 (0.4)	3 (0.5)	3 (0.4)	0 (0.0)
Ruapehu District	3 (0.1)	1 (0.2)	5 (0.6)	0 (0.0)
Whanganui	18 (0.9)	8 (1.4)	18 (2.3)	2 (0.6)
Rangitikei	2 (0.1)	0 (0.0)	3 (0.4)	0 (0.0)
Manawatu	5 (0.2)	2 (0.3)	4 (0.5)	1 (0.3)
Palmerston North	46 (2.2)	18 (3.1)	18 (2.3)	5 (1.5)
Taranua	3 (0.1)	0 (0.0)	3 (0.4)	0 (0.0)
Horowhenua	9 (0.4)	2 (0.3)	4 (0.5)	1 (0.3)

Kapiti Coast	13 (0.6)	4 (0.7)	6 (0.8)	1 (0.3)
Porirua	12 (0.6)	2 (0.3)	7 (0.9)	1 (0.3)
Upper Hutt	13 (0.6)	5 (0.9)	2 (0.3)	6 (1.8)
Lower Hutt	57 (2.7)	10 (1.7)	27 (3.4)	5 (1.5)
Wellington	142 (6.8)	49 (8.6)	24 (3.0)	17 (5.0)
Masterton	9 (0.4)	0 (0.0)	7 (0.9)	1 (0.3)
Carterton	4 (0.2)	1 (0.2)	1 (0.1)	0 (0.0)
South Wairarapa	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Tasman	18 (0.9)	4 (0.7)	5 (0.6)	0 (0.0)
Nelson	39 (1.9)	7 (1.2)	9 (1.1)	8 (2.4)
Marlborough	16 (0.8)	2 (0.3)	7 (0.9)	4 (1.2)
Kaikoura	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Buller	1 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)
Grey	7 (0.3)	4 (0.7)	3 (0.4)	0 (0.0)
Westland	1 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)
Hurunui	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)
Waimakariri	12 (0.6)	0 (0.0)	3 (0.4)	1 (0.3)
Christchurch	212 (10.2)	46 (8.0)	48 (6.1)	36 (10.6)
Selwyn	5 (0.2)	2 (0.3)	2 (0.3)	0 (0.0)
Ashburton	11 (0.5)	1 (0.2)	2 (0.3)	1 (0.3)
Timaru	15 (0.7)	3 (0.5)	10 (1.3)	2 (0.6)
Mackenzie	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Waimate	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Chatham Islands	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Waitaki	21 (1.0)	2 (0.3)	5 (0.6)	2 (0.6)
Central Otago	9 (0.4)	3 (0.5)	3 (0.4)	1 (0.3)
Queenstown Lakes	13 (0.6)	4 (0.7)	3 (0.4)	3 (0.9)
Dunedin	153 (7.3)	33 (5.8)	35 (4.4)	34 (10.0)
Clutha	4 (0.2)	0 (0.0)	2 (0.3)	0 (0.0)
Southland	2 (0.1)	0 (0.0)	2 (0.3)	0 (0.0)
Gore	6 (0.3)	3 (0.5)	3 (0.4)	0 (0.0)
Invercargill	36 (1.7)	6 (1.0)	11 (1.4)	5 (1.5)
TLA Code not available	38 (1.8)	14 (2.4)	7 (0.9)	3 (0.9)
Total	2085	573	791	340

^a Including orthodontic auxiliaries

Table 5-2. Population: practitioner ratios for dental hygienists and dental therapists (based on population estimates for June 2011, age 15+ and 14 or less, respectively)

	Population-to-dental hygienist ratio	Dental hygienists per 100,000 population ^b	Population-to-dental therapist ratio	Dental therapists per 100,000 children
TLA area	Based on population aged 15+		Based on population aged 14 or less	
Far North	5787.5	17.3	920.0	108.7
Whangarei	4930.8	20.3	947.4	105.6
Kaipara		0.0	2100.0	47.6
Auckland unitary authority	4864.8	20.6	1132.7	88.3
Thames-Coromandel	7566.7	13.2	642.9	155.6
Hauraki		0.0	3750.0	26.7
Waikato	49500.0	2.0	5300.0	18.9
Matamata-Piako		0.0	2366.7	42.3
Hamilton	8135.7	12.3	880.6	113.6
Waipa	6216.7	16.1	1485.7	67.3
Otorohanga	7340.0	13.6	720.0	138.9
South Waikato	8800.0	11.4	5700.0	17.5
Waitomo		0.0	2350.0	42.6
Taupo	26900.0	3.7	1480.0	67.6
Western BoP		0.0	4650.0	21.5
Tauranga	4884.2	20.5	871.4	114.8
Rotorua	10460.0	9.6	868.4	115.2
Whakatane	8766.7	11.4	1012.5	98.8
Kawerau		0.0	1770.0	56.5
Opotiki		0.0	710.0	140.8
Gisborne	8775.0	11.4	1300.0	76.9
Wairoa	6390.0	15.6	428.0	233.6
Hastings	8357.1	12.0	1180.0	84.7
Napier	11700.0	8.5	1525.0	65.6
Central Hawkes Bay		0.0	2850.0	35.1
New Plymouth	10000.0	10.0	905.9	110.4
Stratford		0.0	1000.0	100.0
South Taranaki	7033.3	14.2	2100.0	47.6
Ruapehu District	9950.0	10.1	600.0	166.7
Whanganui	4337.5	23.1	505.6	197.8
Rangitikei		0.0	1033.3	96.8
Manawatu	11000.0	9.1	1500.0	66.7
Palmerston North	3666.7	27.3	933.3	107.1
Tararua		0.0	1333.3	75.0
Horowhenua	12400.0	8.1	1550.0	64.5
Kapiti Coast	10225.0	9.8	1550.0	64.5
Porirua	19900.0	5.0	1885.7	53.0
Upper Hutt	6560.0	15.2	4250.0	23.5
Lower Hutt	7950.0	12.6	822.2	121.6
Wellington	3287.8	30.4	1429.2	70.0
Masterton		0.0	700.0	142.9
Carterton	6490.0	15.4	1640.0	61.0

South Wairarapa		0.0		0.0
Tasman	9600.0	10.4	1960.0	51.0
Nelson	5500.0	18.2	1000.0	100.0
Marlborough	18300.0	5.5	1157.1	86.4
Kaikoura		0.0		0.0
Buller		0.0	1950.0	51.3
Grey	2775.0	36.0	933.3	107.1
Westland		0.0	1590.0	62.9
Hurunui		0.0	2250.0	44.4
Waimakariri		0.0	3466.7	28.8
Christchurch	6423.9	15.6	1391.7	71.9
Selwyn	16650.0	6.0	4800.0	20.8
Ashburton	24700.0	4.0	3150.0	31.7
Timaru	12200.0	8.2	830.0	120.5
Mackenzie		0.0		0.0
Waimate		0.0		0.0
Chatham Islands		0.0		0.0
Waitaki	8650.0	11.6	780.0	128.2
Central Otago	4950.0	20.2	1100.0	90.9
Queenstown Lakes	5825.0	17.2	1700.0	58.8
Dunedin	3121.2	32.0	574.3	174.1
Clutha		0.0	1825.0	54.8
Southland		0.0	3300.0	30.3
Gore	3316.7	30.2	833.3	120.0
Invercargill	7066.7	14.2	981.8	101.9
Total	6061.6	16.5	1151.7	86.8

Author's comments

I welcome any feedback and suggestions that readers may have: please email me directly at jonathan.broadbent@otago.ac.nz.