Selected Health Professional Workforce New Zealand 2000

New Zealand Health Information Service
November 2001

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Foreword

The New Zealand Health Information Service has maintained the New Zealand Selected Health Professional Workforce data collection since 1995. Our objectives for the collection are to maintain the database and also to ensure that information from it is available to customers in a usable and user-friendly format.

This publication is based on survey data, and so it is important that readers consider the response rates when using the data. The report provides a comprehensive summary of available workforce statistics on New Zealand Selected Health Professionals. More in-depth data is available on request.

Jim Fraser
New Zealand Health Information Service
November 2001

Acknowledgements

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Most of all, the New Zealand Health Information Service would like to thank all the respondents from the selected health professions who completed the 2000 health workforce surveys.

Introduction

Active selected health professional workforce

This publication contains data about the active selected health professional workforce in New Zealand in both public and private sectors who purchased an Annual Practising Certificate (APC) or Annual Licence (AL) between March 2000 and September 2000. The criteria that must be met in order for any of the selected health professionals to be defined as active is that they:

- hold a current Annual Practising Certificate (APC) or Annual Licence (AL), and
- have reported in their respective workforce survey that they are working in their profession.

Respondents were considered to be working in their profession if they responded to at least one question on the survey regarding their employer, work type, or hours that they work.

Health professionals who were working on a part-time or casual basis are included as active and are therefore included in the data.

Data collection process

The data for this publication is based on a workforce questionnaire that accompanied the APC or AL invoice sent by the Registration Boards Secretariat. The applications were sent in February 2000 to those on the register for each health profession on behalf of the New Zealand Health Information Service (NZHIS). The data was entered and quality assured by NZHIS.

The data is based on surveys that have varying response rates, they should not be interpreted as a definitive description of each profession. Included in each chapter is the appropriate response rate that helps to put the resulting data in context. Each chapter also includes an indication of the number of APC and AL holders who did not respond to the survey. It is not known if some or all of these are actively working in their profession.

This publication builds on the publications The New Zealand Health Workforce 1994, New Zealand Medical Practitioners 2000 and New Zealand Nurses and Midwives 1999. In earlier publications there have been additional data sources, including the National Payroll System, but because of restructuring in the health sector these information resources are no longer available.

Optometrists

There were 508 optometrists who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 360 active (working) optometrists who responded to the health workforce survey. This represents 70.9 percent of optometrists who are 2000 APC holders. A further 9.6 percent of optometrists responded to the 2000 survey but did not report that they were actively working. It is not known if the APC holders who did not respond to the survey (19.5 percent) are actively working as optometrists.

Table 1 shows the number of APCs purchased by optometrists each year. Although not all of those purchasing APCs are actively working in the profession, this is an indicator of the size of the optometrist workforce. The number of APCs purchased has increased by 50.7 percent from 337 to 508 over the last 10 years.

Table 1: *Number of Annual Practising Certificates purchased by optometrists, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	337	303	89.9
1992/93	330	*	*
1993/94	346	269	77.7
1994/95	370	279	75.4
1995/96	393	319	81.2
1996/97	407	328	80.6
1997/98	415	321	77.3
1998/99	457	344	75.3
1999/2000	468	329	70.3
2000/01	508	360	70.9

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

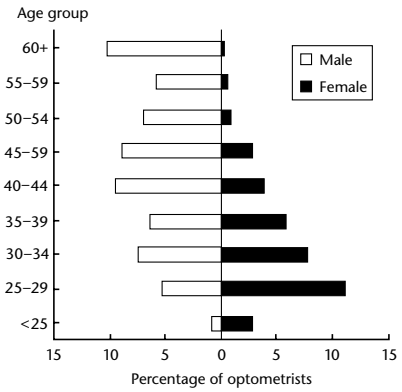
The active optometrist workforce was predominantly male in 2000. Males accounted for 61.7 percent of optometrists as depicted in Table 2 and Figure 1.

Table 2: *Age and sex distibution of active optometrists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	3	19	27	23	34	32	25	21	37	1	222
Female	10	40	28	21	14	10	3	2	1	2	131
Not reported	0	0	0	0	0	2	0	1	1	3	7
Total	13	59	55	44	48	44	28	24	39	6	360

Fig 1:
Age and sex distribution of active optometrists, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 3 shows prioritised ethnicity of active optometrists (refer to ethnicity notes, Appendix 1). The majority of the active optometrists (78.9 percent) identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 3: *Prioritised ethnicity of optometrists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	284	78.9
Other European	36	10.0
South East Asian	2	0.6
Chinese	21	5.8
Indian	5	1.4
Other Asian	2	0.6
Other Pacific	1	0.3
Other	3	0.8
Not reported	6	1.7
Total	360	100.0

Note: because of rounding errors, percentages do do not add to 100.0

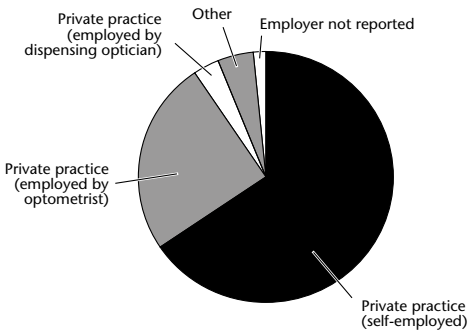
Employment setting

Table 4 illustrates the main employment setting of both male and female active optometrists. Figure 2 (page 14) shows that the majority (65.3 percent) of active optometrists were self-employed in private practice. There were only four optometrists who reported that their main employment was with a CHE (Crown health enterprise).

Table 4: *Main employment setting of active optometrists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	2	2	0	4	1.1
Private practice (self-employed)	173	57	5	235	65.3
Private practice (employed by optometrist)	30	59	2	91	25.3
Private practice (employed by dispensing optician)	8	4	0	12	3.3
University	4	4	0	8	2.2
Other	2	3	0	5	1.4
Not reported	3	2	0	5	1.4
Total	222	131	7	360	100.0

Fig 2:
Main employment setting of active optometrists, 2000



Work type

General optometry was reported as the work type for 60.5 percent of respondents when working in their main employment setting (see Table 5). Management was the second most frequently reported work type, at 25.4 percent. These results are consistent with the large number of optometrists who are self-employed in private practice.

Table 5: *Work type of active optometrists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General optometry	215	127	6	348	60.5
Management	106	37	3	146	25.4
Study/research	38	10	1	49	8.5
Teaching	11	4	0	15	2.6
Other	5	4	1	10	1.7
Not reported	5	2	0	7	1.2
Total	380	184	11	575	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 6 shows the main employment setting by work type of the 360 active optometrists who responded to the 2000 survey. Each optometrist could specify more than one work type and Tables 5 and 6 show that many optometrists worked in more than one field within their main employment setting.

Table 6: Work type of active optometrists by main employment setting, 2000

Employment setting by work type	General optometry	Teaching	Study/research	Management	Other	Not reported	Total
CHE	4	1	1	0	0	0	6
Private practice (self-employed)	229	7	38	135	9	5	423
Private practice (employed by an optometrist)	90	1	4	7	1	1	104
Private practice (employed by a dispensing optician)	12	0	0	1	0	0	13
University	4	6	6	2	0	0	18
Other	4	0	0	0	0	1	5
Not reported	5	0	0	1	0	0	6
Total	348	15	49	146	10	7	575

Country of qualification

Table 7 shows most of the active optometrists in New Zealand, (79.4 percent) were New Zealand graduates. Most overseas graduates qualified in the United Kingdom (12.5 percent) and South Africa (3.6 percent).

Table 7: Country of qualification of active optometrists, 2000

Country	Number	Percentage
New Zealand	286	79.4
United Kingdom	45	12.5
Australia	10	2.8
South Africa	13	3.6
Not reported	6	1.7
Total	360	100.0

Hours worked

Table 8 shows the number of full-time equivalent (FTE) optometrists by geographic region. It shows that on average there were 9.2 active optometrists per 100 000 estimated population. Wellington and Otago had the highest rates and Taranaki and Southland the lowest.

Table 8: *Geographic distribution of active optometrists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	355.0	8.9	6.1
Auckland	4742.3	118.6	9.8
Waikato	872.5	21.8	6.2
Bay of Plenty	1024.5	25.6	10.4
Tairawhiti	123.0	3.1	6.6
Hawke's Bay	582.0	14.6	10.0
Taranaki	238.0	6.0	5.7
Manawatu-Wanganui	931.0	23.3	8.6
Wellington	1831.0	45.8	11.8
Nelson-Marlborough	472.0	11.8	9.7
West Coast	97.0	2.4	7.5
Canterbury	1582.0	39.6	8.1
Otago	822.0	20.6	10.9
Southland	195.0	4.9	5.2
Not reported	210.5	5.3	-
Total	14 077.8	351.9	9.2

Table 9 shows the number of FTE optometrists across main employment setting by work type for 2000. This shows that general optometry was reported to account for 88.1 percent of working time. On average, optometrists reported that they worked approximately 39.1 hours per week.

Table 9: *Work type of active optometrists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
General optometry	12 402.3	310.1	88.1
Teaching	245.5	6.1	1.7
Study/research	248.0	6.2	1.8
Management	1055.0	26.4	7.5
Other	87.0	2.2	0.6
Not reported	40.0	1.0	0.3
Total	14 077.8	351.9	100.0

Dispensing opticians

There were 96 dispensing opticians who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 49 active (working) dispensing opticians who responded to the health workforce survey. This represents 51.0 percent of dispensing opticians who are 2000 APC holders. A further 4.2 percent of dispensing opticians responded to the 2000 survey but did not report that they were actively working. It is not known if the APC holders who did not respond to the survey (44.8 percent) are actively working as dispensing opticians.

Table 10 shows the number of APCs purchased by dispensing opticians each year. Although not all of those purchasing APCs are actively working in the profession, this is an indicator of the size of the dispensing optician workforce. The number of APCs purchased has increase 92.0 percent from 50 to 96 over the last 10 years.

Table 10: *Number of Annual Practising Certificates purchased by dispensing opticians, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	50	50	100.0
1992/93	53	*	*
1993/94	56	43	76.8
1994/95	63	37	58.7
1995/96	73	57	78.1
1996/97	76	49	64.5
1997/98	77	58	75.3
1998/99	90	56	62.2
1999/2000	85	57	67.1
2000/01	96	49	51.0

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

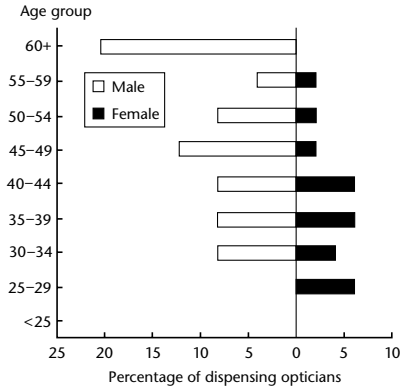
The active dispensing optician workforce was predominantly male. Males accounted for 69.4 percent of dispensing opticians as depicted in Table 11 and Figure 3.

Table 11: *Age and sex distribution of active dispensing opticians, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	0	0	4	4	4	6	4	2	10	0	34
Female	1	3	2	3	3	1	1	1	0	0	15
Not reported	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	6	7	7	7	5	3	10	0	49

Fig 3:
Age and sex distribution of active dispensing opticians, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 12 (page 20)shows prioritised ethnicity of active dispensing opticians (refer to ethnicity notes, Appendix 1, page 83). The majority of the active dispensing opticians identified themselves as belonging to the New Zealand/ Pākehā ethnic group (75.5 percent).

Table 12: *Prioritised ethnicity of active dispensing opticians, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	37	75.5
Other European	11	22.4
Other	1	2.0
Not reported	0	0.0
Total	49	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Employment setting

Table 13 illustrates the main employment setting of both male and female active dispensing opticians. Figure 4 shows that the majority (40.8 percent) of active dispensing opticians were self-employed in private practice. This was the main employment setting for 26.7 percent of females and 47.1 percent of males.

Table 13: *Main employment setting of active dispensing opticians, by sex, 2000*

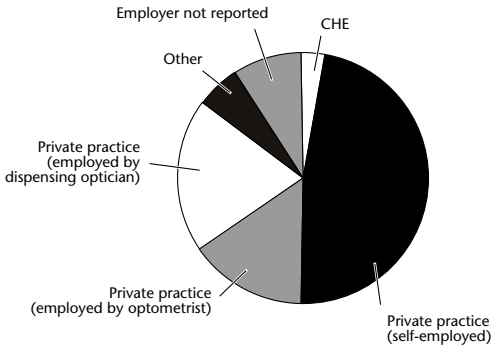
Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	1	0	0	1	2.0
Private practice (self-employed)	16	4	0	20	40.8
Private practice (employed by optometrist)	5	5	0	10	20.4
Private practice (employed by dispensing optician)	7	4	0	11	22.4
Other	2	1	0	3	6.1
Not reported	3	1	0	4	8.2
Total	34	15	0	49	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Work type

Table 14 shows the proportion of active dispensing opticians working in each work type classification within their main employment setting.

Fig 4:
Main employment setting of active dispensing opticians, 2000



The most common work type for dispensing opticians was general dispensing (52.3 percent) when working in their main employment setting. Management was the second most frequently reported work type, at 29.5 percent.

Table 15 (page 22) shows the main employment setting by work type of the 49 active dispensing opticians who responded to the 2000 survey. Each dispensing optician could specify more than one work type and Tables 14 and 15 show that many dispensing opticians worked in more than one field within their main employment setting.

Table 14: *Work type of active dispensing opticians in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General dispensing	31	15	0	46	52.3
Teaching	8	0	0	8	9.1
Study/research	4	1	0	5	5.7
Management	17	9	0	26	29.5
Other	2	1	0	3	3.4
Not reported	0	0	0	0	0.0
Total	62	26	0	88	100.0

Table 15: *Work type of active dispensing opticians by main employment setting, 2000*

Employment setting by work type	General dispensing	Teaching	Study/research	Management	Other	Not reported	Total
CHE	1	0	0	0	0	0	1
Private practice (self-employed)	20	5	4	13	1	0	43
Private practice (employed by an optometrist)	10	0	0	2	0	0	12
Private practice (employed by a dispensing optician)	10	1	0	5	0	0	16
Other	1	0	0	2	1	0	4
Not reported	4	2	1	4	1	0	12
Total	46	8	5	26	3	0	88

Country of qualification

Table 16 shows that the majority of active dispensing opticians who practise in New Zealand also qualified here (55.1 percent). Most overseas graduates qualified in the United Kingdom (16.3 percent) and Australia (12.2 percent), with 10.2 percent not reporting where they graduated.

Table 16: *Country of qualification of active dispensing opticians, 2000*

Country	Number	Percentage
New Zealand	27	55.1
United Kingdom	8	16.3
Australia	6	12.2
Germany	2	4.1
Switzerland	1	2.0
Not reported	5	10.2
Total	49	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Hours worked

Table 17 shows the number of full-time equivalent (FTE) dispensing opticians by geographic region. On average in New Zealand there were 1.4 FTE dispensing opticians reported per 100 000 population. Tairawhiti had the highest reported rate at 4.6 FTEs per 100 000 population.

Table 18 (page 24) shows the number of FTE dispensing opticians at their main employment setting by work type for 2000. General dispensing was reported to account for 74.7 percent of working time. On average, dispensing opticians reported that they worked approximately 42.7 hours per week.

Table 17: *Geographic distribution of active dispensing opticians by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	209.0	5.2	3.6
Auckland	764.0	19.1	1.6
Waikato	300.0	7.5	2.1
Bay of Plenty	85.0	2.1	0.9
Tairawhiti	86.0	2.2	4.6
Hawke's Bay	39.0	1.0	0.7
Taranaki	0.0	0.0	0.0
Manawatu-Wanganui	0.0	0.0	0.0
Wellington	316.0	7.9	2.0
Nelson-Marlborough	0.0	0.0	0.0
West Coast	0.0	0.0	0.0
Canterbury	249.0	6.2	1.3
Otago	0.0	0.0	0.0
Southland	0.0	0.0	0.0
Not reported	45.0	1.1	-
Total	2093.0	52.3	1.4

Table 18: *Work type of active dispensing opticians at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
General dispensing	1563.5	39.1	74.7
Teaching	41.0	1.0	2.0
Study/research	11.0	0.3	0.5
Management	415.5	10.4	19.9
Other	62.0	1.6	3.0
Not reported	0.0	0.0	0.0
Total	2093.0	52.3	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Chiropractors

There were 218 chiropractors who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 139 active (working) chiropractors that responded to the health workforce survey. This represents 63.8 percent of the 2000 APC holders. A further 2.8 percent responded to the 2000 survey but did not report that they were actively working. It is not known if the APC holders who did not respond to the survey (33.5 percent) are actively working as chiropractors.

Table 19 shows the number of APCs purchased by chiropractors each year. Although not all of those purchasing APCs are actively working in the profession, this is an indication of the size of the chiropractor workforce. The number of APCs purchased has increased by 42.5 percent from 153 to 218 over the last 10 years.

Table 19: *Number of Annual Practising Certificates purchased by chiropractors, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	153	136	88.9
1992/93	151	*	*
1993/94	145	115	79.3
1994/95	158	96	60.8
1995/96	171	121	70.8
1996/97	180	119	66.1
1997/98	170	121	71.2
1998/99	192	129	67.2
1999/2000	188	135	71.8
2000/01	218	139	63.8

** see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

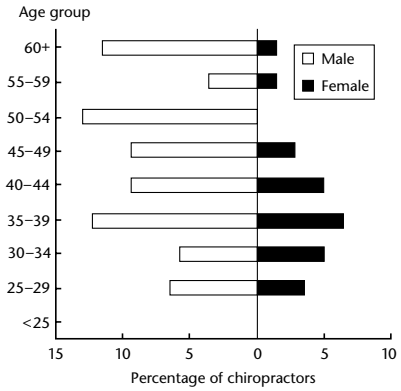
The active chiropractic workforce was predominantly male (72.7 percent), as shown in Table 20 and Figure 5.

Table 20: *Age and sex distribution of active chiropractors, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	0	9	8	17	13	13	18	5	16	2	101
Female	0	5	7	9	7	4	0	2	2	2	38
Not reported	0	0	0	0	0	0	0	0	0	0	0
Total	0	14	15	26	20	17	18	7	18	4	139

Fig 5:
Age and sex distribution of active chiropractors, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 21 shows prioritised ethnicity of active chiropractors (refer to ethnicity notes, Appendix 1, page 83). The majority of the active chiropractors identified themselves as belonging to the New Zealand/ Pākehā ethnic group (76.3 percent).

Table 21: *Prioritised ethnicity of active chiropractors, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	106	76.3
Other European	20	14.4
New Zealand Māori	1	0.7
Indian	2	1.4
Other/Not reported	10	7.2
Total	139	100.0

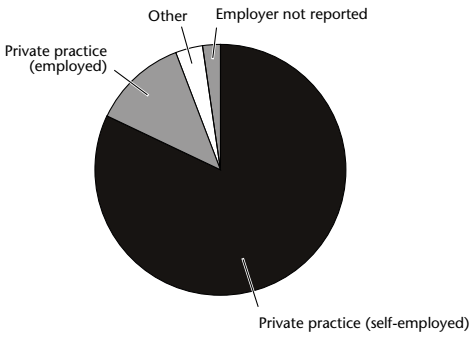
Employment setting

Table 22 illustrates the main employment setting of active chiropractors. Figure 6 shows that the majority (82.0 percent) of active chiropractors were self-employed in a private practice.

Table 22: *Main employment setting of active chiropractors, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
Private practice (self-employed)	83	31	0	114	82.0
Private practice (employed)	11	6	0	17	12.2
Other	4	1	0	5	3.6
Not reported	3	0	0	3	2.2
Total	101	38	0	139	100.0

Fig 6:
Main employment setting of active chiropractors, 2000



Work type

Table 23 shows that general chiropractic practice was reported as the work type for 47.3 percent of respondents when working in their main employment setting. Management was the second most frequently reported work type, at 26.3 percent.

Table 24 shows the main employment setting by work type of the 139 active chiropractors who responded to the 2000 survey. Each chiropractor could specify more than one work type and Tables 23 and 24 show that many chiropractors worked in more than one field within their main employment setting.

Table 23: *Work type of active chiropractors in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General chiropractic	96	37	0	133	47.3
Study/research	43	16	0	59	21.0
Management	54	20	0	74	26.3
Other	8	2	0	10	3.6
Not reported	3	2	0	5	1.8
Total	204	77	0	281	100.0

Table 24: *Work type of active chiropractors by main employment setting, 2000*

Employment setting by work type	General chiropractic	Study/research	Management	Other	Not reported	Total
Private practice (self-employed)	112	49	65	9	2	237
Private practice (employed)	17	7	6	0	1	31
Other	1	3	2	1	2	9
Not reported	3	0	1	0	0	4
Total	133	59	74	10	5	281

Country of qualification

Table 25 shows where chiropractors received their qualifications. In 2000, the majority (51.8 percent) of respondents to the workforce survey obtained their chiropractic qualifications in the United States of America, followed by Australia (22.3 percent). New Zealand graduates accounted for 18.0 percent of all respondents.

Table 25: *Country of qualification of active chiropractors, 2000*

Country	Number	Percentage
New Zealand	25	18.0
United Kingdom	7	5.0
USA	72	51.8
Canada	4	2.9
Australia	31	22.3
Not reported	0	0.0
Total	139	100.0

Hours worked

Table 26 (page 30) shows the number of full-time equivalent (FTE) chiropractors by geographic region. Chiropractors were distributed throughout New Zealand at a rate of 3.4 FTEs per 100 000 population. The highest concentration of chiropractors was in the Nelson-Marlborough region, where there were 5.8 FTEs per 100 000 population. The lowest concentration was in Tairawhiti and Manawatu-Wanganui where there were 1.9 FTEs per 100 000 population.

The various amounts of time spent by chiropractors in each type of work are shown in Table 27 (page 30). General chiropractic practice took up the majority of the work time of chiropractors, equating to 105.6 FTEs. On average, chiropractors reported that they worked approximately 37.2 hours per week.

Table 26: *Geographic distribution of active chiropractors by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	206.0	5.2	3.5
Auckland	1871.5	46.8	3.9
Waikato	305.0	7.6	2.2
Bay of Plenty	445.0	11.1	4.5
Tairawhiti	35.0	0.9	1.9
Hawke's Bay	281.0	7.0	4.8
Taranaki	145.0	3.6	3.5
Manawatu-Wanganui	200.5	5.0	1.9
Wellington	534.0	13.4	3.4
Nelson-Marlborough	284.0	7.1	5.8
West Coast	65.0	1.6	5.0
Canterbury	502.5	12.6	2.6
Otago	150.0	3.8	2.0
Southland	143.0	3.6	3.8
Not reported	0.0	0.0	-
Total	5167.5	129.2	3.4

Table 27: *Work type of active chiropractors at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
General chiropractic	4225.5	105.6	81.8
Study/research	373.0	9.3	7.2
Management	420.0	10.5	8.1
Other	147.0	3.7	2.8
Not reported	2.0	0.1	0.0
Total	5167.5	129.2	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Dietitians

There were 343 dietitians who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 248 active (working) dietitians who responded to the health workforce survey. This represents 72.3 percent of the 2000 APC holders. A further 5.0 percent did not report they were actively working. It is not known if the APC holders who did not respond to the survey (22.7 percent) are actively working as dietitians.

Table 28 shows the number of APCs purchased by dietitians each year. Although not all of those purchasing APCs are actively working in the profession, this is an indicator of the size of the dietitian workforce. The number of APCs purchased has increased by 14.7 percent from 299 to 343 over the last 10 years.

Table 28: *Number of Annual Practising Certificates purchased by dietitians, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	299	236	78.9
1992/93	302	*	*
1993/94	310	188	60.6
1994/95	318	246	77.4
1995/96	388	245	63.1
1996/97	340	244	71.8
1997/98	336	250	74.4
1998/99	341	250	73.3
1999/2000	334	239	71.6
2000/01	343	248	72.3

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

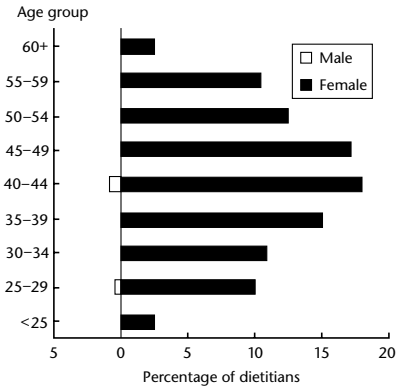
The active dietitian workforce was predominantly female (97.6 percent), as illustrated in Figure 7 and Table 29.

Table 29: *Age and sex distribution of active dietitians, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	0	1	0	0	2	0	0	0	0	0	3
Female	6	24	26	36	43	41	30	25	6	5	242
Not reported	0	0	0	0	0	0	0	1	0	2	3
Total	6	25	26	36	45	41	30	26	6	7	248

Fig 7:
Age and sex distribution of active dietitians, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 30 shows prioritised ethnicity of active dietitians (refer to ethnicity notes, Appendix 1, page 83). The majority (89.5 percent) of the active dietitians identified themselves as belonging to the New Zealand European/ Pākehā ethnic group.

Table 30: *Prioritised ethnicity of active dietitians, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	222	89.5
Other European	10	4.0
Chinese	7	2.8
New Zealand Māori	4	1.6
Indian	1	0.4
Other/Not reported	4	1.6
Total	248	100.0

Note: because of rounding errors, percentages do do not add to 100.0

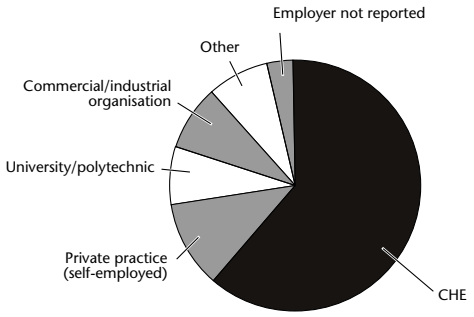
Employment setting

Table 31 shows the breakdown of males and females in each main employment setting. Figure 8 shows the majority (60.9 percent) of active dietitians were working for Crown health enterprises (CHEs). Fourteen percent were working primarily in private practice.

Table 31: *Main employment setting of active dietitians, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	3	146	2	151	60.9
Private practice (self-employed)	0	27	1	28	11.3
Private practice (group practice)	0	6	0	6	2.4
University / polytechnic	0	19	0	19	7.7
Government dept / Crown agency	0	4	0	4	1.6
Commercial/industrial organisation	0	21	0	21	8.5
Other	0	10	0	10	4.0
Not reported	0	9	0	9	3.6
Total	3	242	3	248	100.0

Fig 8:
Main employment setting of active dietitians, 2000



Work type

Table 32 shows the number of dietitians in each work type for 2000. Clinical outpatients (24.3 percent) and clinical inpatients (19.6 percent) were reported as the main work types of respondents when working in their main employment setting.

Table 32: *Work type of active dietitians in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Clinical inpatients	1	98	1	100	19.6
Clinical outpatients	2	120	2	124	24.3
Community/district/domiciliary	0	27	0	27	5.3
Food service management	0	23	0	23	4.5
Health promotion	1	34	0	35	6.9
Consultancy/advisory	0	32	0	32	6.3
Sports nutrition	0	9	0	9	1.8
Administration	1	45	0	46	9.0
General management	1	27	0	28	5.5
Teaching	0	37	0	37	7.3
Study/research	1	24	0	25	4.9
Other	1	20	0	21	4.1
Not reported	0	2	1	3	0.6
Total	8	498	4	510	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 33 shows the main employment setting by work type of the 248 active dietitians who responded to the 2000 survey. Each dietitian could specify more than one work type, and Tables 32 and 33 show that many dietitians worked in more than one field within their main employment setting.

Table 33: *Work type of active dietitians by main employment setting, 2000*

Employment setting by work type	Clinical inpatients	Clinical outpatients	Community/district/ domiciliary	Food service management	Health promotion	Consultancy/advisory	Sports nutrition	Administration	General management	Teaching	Study/research	Other	Not reported	Total
CHE	87	94	22	13	20	7	0	29	14	13	10	8	0	317
Private practice (self-employed)	3	13	2	0	5	12	6	4	2	4	3	3	2	59
Private practice (group practice)	0	4	1	2	1	2	1	1	0	1	2	0	0	15
University / polytechnic	1	1	0	0	1	1	2	4	5	17	8	1	1	42
Government dept / Crown agency	0	0	0	0	2	0	0	0	0	0	0	2	0	4
Commercial/industrial organisation	4	5	1	4	1	5	0	5	4	1	0	6	0	36
Other	2	2	1	2	4	2	0	1	1	1	2	1	0	19
Not reported	3	5	0	2	1	3	0	2	2	0	0	0	0	18
Total	100	124	27	23	35	32	9	46	28	37	25	21	3	510

Country of qualification

Most active dietitians (89.9 percent) qualified in New Zealand (Table 34, page 36), followed by the United States of America (2.4 percent).

Hours worked

Table 35 (page 36) shows the number of full-time equivalent (FTE) dietitians by geographic region. The national average was 4.9 per 100 000 population. The West Coast and Canterbury had the highest average rates while Bay of Plenty had the lowest average rate.

Table 34: *Country of qualification of active dietitians, 2000*

Country	Number	Percentage
New Zealand	223	89.9
United Kingdom	5	2.0
Netherlands	2	0.8
South Africa	4	1.6
USA	6	2.4
Australia	1	0.4
Sweden	1	0.4
India	1	0.4
Not reported	5	2.0
Total	248	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 35: *Geographic distribution of active dietitians by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	180.0	4.5	3.1
Auckland	2496.7	62.4	5.2
Waikato	592.0	14.8	4.2
Bay of Plenty	224.0	5.6	2.3
Tairawhiti	122.0	3.1	6.6
Hawke's Bay	210.0	5.3	3.6
Taranaki	229.0	5.7	5.5
Manawatu-Wanganui	361.0	9.0	3.3
Wellington	651.0	16.3	4.2
Nelson-Marlborough	209.0	5.2	4.3
West Coast	130.0	3.3	10.1
Canterbury	1564.0	39.1	8.0
Otago	442.5	11.1	5.9
Southland	140.0	3.5	3.8
Not reported	20.0	0.5	-
Total	7571.2	189.3	4.9

Table 36 shows the number of FTE dietitians in each type of work. Clinical inpatients and clinical outpatients accounted for 25.0 percent and 23.0 percent respectively of all work undertaken. On average, dietitians reported that they worked approximately 30.5 hours per week.

Table 36: *Work type of active dietitians at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
Clinical inpatients	1890.0	47.3	25.0
Clinical outpatients	1742.7	43.6	23.0
Commercial/district/ domiciliary	465.0	11.6	6.1
Food service management	551.0	13.8	7.3
Health promotion	588.0	14.7	7.8
Consultancy/advisory	480.5	12.0	6.3
Sports nutrition	124.0	3.1	1.6
Administration	321.5	8.0	4.2
General management	465.5	11.6	6.1
Teaching	325.0	8.1	4.3
Study/research	234.0	5.9	3.1
Other	384.0	9.6	5.1
Not reported	0.0	0.0	-
Total	7571.2	189.3	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Medical laboratory technologists

There were 1292 medical laboratory technologists who purchased Annual Licences (AL) between March and September 2000. A health workforce survey was included with each invoice sent in February 2000.

These statistics are based on the 634 active (working) medical laboratory technologists who responded to the health workforce survey. This represents 49.1 percent of the 2000 licence holders. A further 4.0 percent responded to the 2000 survey but did not report that they were actively working. It is not known if the AL holders who did not respond to the survey (46.9 percent) are actively working as medical laboratory technologists.

Table 37 shows the number of ALs purchased by medical laboratory technologists each year. Although not all of those purchasing ALs are actively working in the profession, this is an indicator of the size of the medical laboratory technology workforce. The number of ALs purchased has increased by 18.5 percent from 1090 to 1292 over the last 10 years.

Table 37: *Number of Annual Licences purchased by medical laboratory technologists, 1991/92–2000/01*

Year	Number of ALs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	1090	856	78.5
1992/93	1100	*	*
1993/94	1161	705	60.7
1994/95	1224	763	62.3
1995/96	1299	769	59.2
1996/97	1302	810	62.2
1997/98	1260	686	54.4
1998/99	1319	658	49.9
1999/2000	1267	660	52.1
2000/01	1292	634	49.1

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

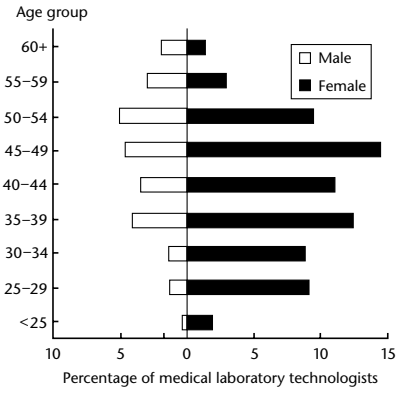
In 2000 the active medical laboratory technology workforce was predominantly female (72.6 percent), as shown in Table 38 and Figure 9.

Table 38: *Age and sex distribution of active medical laboratory technologists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	2	8	9	26	22	29	32	19	12	2	161
Female	12	58	56	79	70	92	60	19	9	5	460
Not reported	0	0	1	3	0	1	1	2	0	5	13
Total	14	66	66	108	92	122	93	40	21	12	634

Fig 9:
Age and sex distribution of active medical laboratory technologists, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 39 (page 40) shows prioritised ethnicity (refer to ethnicity notes, Appendix 1, page 83). The majority (87.1 percent) of the active medical laboratory technologists identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 39: *Prioritised ethnicity of active medical laboratory technologists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	552	87.1
Other European	30	4.7
Chinese	9	1.4
New Zealand Māori	1	0.2
Indian	12	1.9
Samoan	3	0.5
Cook Island Māori	1	0.2
Fijian	4	0.6
South East Asian	1	0.2
Other Asian	1	0.2
Other/Not reported	20	3.2
Total	634	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Employment setting

Table 40 shows the breakdown of males and females in each main employment setting. Figure 10 shows that the majority (72.4 percent) of medical laboratory technologists worked for CHEs in their main employment setting. Working in a private practice (group practice) was the second most common reported main employment setting (17.5 percent).

Table 40: *Main employment setting of active medical laboratory technologists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	116	332	11	459	72.4
Private practice (self-employed)	1	12	0	13	2.1
Private practice (group practice)	27	83	1	111	17.5
University / polytechnic	0	2	0	2	0.3
Commercial/industrial organisation	5	4	0	9	1.4
Other	3	9	1	13	2.1
Not reported	9	18	0	27	4.3
Total	161	460	13	634	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Fig 10:
Main employment setting of active medical laboratory technologists, 2000

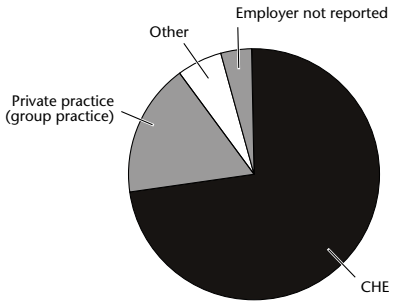


Table 41: *Work type of active medical laboratory technologists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Clinical biochemistry	44	102	3	149	17.1
Haematology	33	102	3	138	15.9
Microbiology	33	127	3	163	18.8
Transfusion science	19	63	2	84	9.7
Immunology	10	18	0	28	3.2
Histology	5	18	0	23	2.6
Cytology	3	23	1	27	3.1
Virology	2	11	0	13	1.5
Cytogenetics	2	13	0	15	1.7
Nuclear medicine	0	1	0	1	0.1
Serology	3	7	0	10	1.2
General medical laboratory technology	18	19	0	37	4.3
Teaching	3	7	0	10	1.2
Study/research	2	10	0	12	1.4
Management	37	32	3	72	8.3
Other	8	20	0	28	3.2
Not reported	17	39	3	59	6.8
Total	239	612	18	869	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Work type

Microbiology was reported as the work type for 18.8 percent of respondents when working in their main employment setting (see Table 41, page 41). Clinical biochemistry was the second most frequently reported work type, at 17.1 percent.

Table 42 shows the main employment setting by work type of the 634 active medical laboratory technologists who responded to the 2000 survey. Each medical laboratory technologist could specify more than one work type, and Tables 41 and 42 show that many medical laboratory technologists worked in more than one field within their main employment setting.

Country of qualification

Table 43 (page 44) shows that the majority (91.2 percent) of active medical laboratory technologists who responded to the survey in 2000 were trained in New Zealand. Most overseas graduates gained their qualifications in the United Kingdom (3.2 percent); however, 3.5 percent did not report their country of qualification.

Hours worked

Table 44 (page 44) shows the number of full-time equivalent (FTE) medical laboratory technologists in each geographic region based on the distribution of the 634 medical laboratory technologists who responded to the survey. On average in New Zealand there were 14.2 FTE medical laboratory technologists per 100 000 population. In 2000 Tairawhiti and Otago reported the highest rate per capita, while Southland and West Coast reported the lowest rates.

Table 45 (page 45) shows the number of FTE medical laboratory technologists in each type of work across their main employers. Microbiology accounted for 19.8 percent of all work undertaken, followed by clinical biochemistry (17.6 percent). On average, medical laboratory technologists reported that they worked 34.2 hours per week.

Table 33: *Work type of active medical laboratory technologists by main employment setting, 2000*

Employment setting by work type	Clinical biochemistry	Haematology	Microbiology	Transfusion science	Immunology	Histology	Cytology	Virology	Cytogenetics	Nuclear medicine	Serology	General medical laboratory technology	Teaching	Study/research	Management	Other	Not reported	Total
CHE	102	104	116	72	14	16	11	10	11	1	8	25	8	8	44	19	59	628
Private practice (self-employed)	4	4	2	0	0	1	2	0	2	0	0	1	0	0	4	0	0	20
Private practice (group practice)	32	22	35	4	9	3	12	0	0	0	2	7	1	1	12	4	0	144
University / polytechnic	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	0	0	4
Commercial/industrial organisation	3	2	1	0	2	1	1	1	0	0	0	2	0	0	5	1	0	19
Other	3	2	2	2	3	0	0	1	1	0	0	0	1	1	2	2	0	20
Not reported	5	4	7	6	0	1	1	1	0	0	0	2	0	1	4	2	0	34
Total	149	138	163	84	28	23	27	13	15	1	10	37	10	12	72	28	59	869

Table 43: *Country of qualification of active medical laboratory technologists, 2000*

Country	Number	Percentage
New Zealand	578	91.2
United Kingdom	20	3.2
Netherlands	1	0.2
South Africa	6	0.9
Canada	2	0.3
Australia	2	0.3
Hong Kong	1	0.2
Yugoslavia	1	0.2
Zimbabwe	1	0.2
Not reported	22	3.5
Total	634	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 44: *Geographic distribution of active medical laboratory technologists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	698.0	17.5	12.0
Auckland	6348.5	158.7	13.1
Waikato	1841.3	46.0	13.2
Bay of Plenty	1154.5	28.9	11.7
Tairawhiti	369.0	9.2	19.8
Hawke's Bay	801.0	20.0	13.7
Taranaki	552.0	13.8	13.2
Manawatu-Wanganui	1109.0	27.7	10.2
Wellington	2730.5	68.3	17.6
Nelson-Marlborough	542.5	13.6	11.1
West Coast	88.0	2.2	6.8
Canterbury	3622.0	90.6	18.5
Otago	1448.0	36.2	19.1
Southland	264.0	6.6	7.1
Not reported	141.0	3.5	-
Total	21 709.3	542.7	14.2

Table 45: *Work type of active medical laboratory technologists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
Clinical biochemistry	3821.0	95.5	17.6
Haematology	3375.5	84.4	15.5
Microbiology	4294.5	107.4	19.8
Transfusion science	2049.8	51.2	9.4
Immunology	545.0	13.6	2.5
Histology	635.0	15.9	2.9
Cytology	887.0	22.2	4.1
Virology	365.0	9.1	1.7
Cytogenetics	540.0	13.5	2.5
Nuclear medicine	40.0	1.0	0.2
Serology	185.5	4.6	0.9
General medical laboratory technology	548.0	13.7	2.5
Teaching	75.0	1.9	0.3
Study/research	119.0	3.0	0.5
Management	1627.0	40.7	7.5
Other	608.0	15.2	2.8
Not reported	1994.0	49.9	9.2
Total	21 709.3	542.7	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Medical radiation technologists

There were 1459 medical radiation technologists who purchased Annual Licences (ALs) between March and September 2000. A health workforce survey was included with each invoice sent in February 2000.

These statistics are based on the 903 active (working) medical radiation technologists who responded to the health workforce survey. This represents 61.9 percent of the 2000 licence holders. A further 3.6 percent responded to the 2000 survey but did not report that they were actively working. It is not known if the licence holders who did not respond to the survey (34.5 percent) are working as medical radiation technologists.

Table 46 shows the number of ALs purchased by medical radiation technologists each year. Although not all those purchasing ALs are actively working in the profession, this is an indicator of the size of the medical radiation technology workforce. The number of ALs purchased has increased by 39.1 percent from 1049 to 1459 over the last 10 years.

Table 46: *Number of Annual Licences purchased by medical radiation technologists, 1991/92–2000/01*

Year	Number of ALs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	1049	907	86.5
1992/93	1082	*	*
1993/94	1116	704	63.1
1994/95	1181	765	64.8
1995/96	1166	890	76.3
1996/97	1327	886	66.8
1997/98	1315	841	64.0
1998/99	1369	809	59.1
1999/2000	1402	794	56.6
2000/01	1459	903	61.9

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

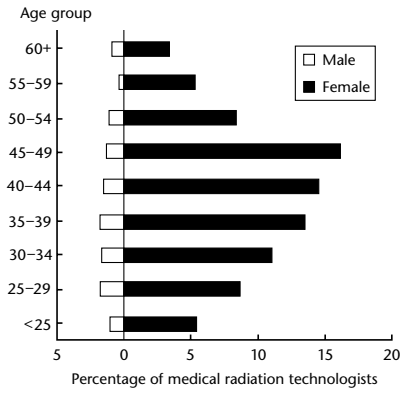
The active medical radiation technologist workforce was predominantly female (87.9 percent), as illustrated by Table 47 and Figure 11.

Table 47: *Age and sex distribution of active medical radiation technologists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	10	16	15	16	14	12	10	3	8	1	105
Female	49	78	100	122	131	146	76	48	31	13	794
Not reported	0	0	0	1	0	0	0	0	0	3	4
Total	59	94	115	139	145	158	86	51	39	17	903

Fig 11:
Age and sex distribution of active medical radiation technologists, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 48 (page 48) shows prioritised ethnicity of active medical radiation technologists (refer to ethnicity notes, Appendix 1, page 83). As in previous years the majority (83.7 percent) of active medical radiation technologists identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 48: *Prioritised ethnicity of active medical radiation technologists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	756	83.7
Other European	67	7.4
Chinese	11	1.2
New Zealand Māori	6	0.7
Indian	5	0.6
Samoan	3	0.3
Tongan	1	0.1
Fijian	1	0.1
South East Asian	1	0.1
Other/Not reported	52	5.8
Total	903	100.0

Employment setting

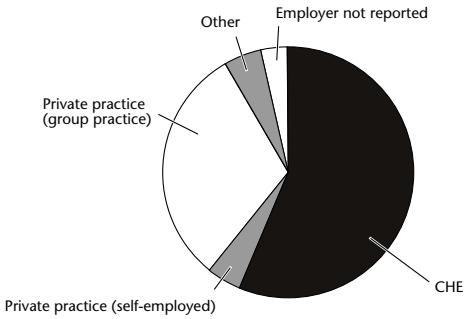
Table 49 shows the numbers of medical radiation technologists in each main employment setting. Figure 12 shows that the majority of active medical radiation technologists were working in either CHEs (56.1 percent) or in private practice (group practice) (31.1 percent).

Table 49: *Main employment setting of active medical radiation technologists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	74	432	1	507	56.1
Private practice (self-employed)	7	31	1	39	4.3
Private practice (group practice)	15	265	1	281	31.1
Private hospital or rest home	1	8	0	9	1.0
University / polytechnic	2	14	0	16	1.8
Government dept / Crown agency	1	2	0	3	0.3
Other	2	16	0	18	2.0
Not reported	3	26	1	30	3.3
Total	105	794	4	903	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Fig 12:
Main employment setting of active medical radiation technologists, 2000



Work type

As shown in Table 50, the majority of medical radiation technologists surveyed indicated that their work type in their main employment setting was diagnostic radiography (48.7 percent). Diagnostic ultrasound (9.4 percent) and radiotherapy (7.9 percent) were the next most significant work types.

Table 50: *Work type of active medical radiations technologists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Diagnostic radiography	54	514	2	570	48.7
Radiotherapy	18	74	0	92	7.9
Diagnostic ultrasound	12	98	0	110	9.4
Computerised tomography	3	85	1	89	7.6
Radionuclide imaging	7	11	0	18	1.5
Magnetic resonance imaging	7	34	1	42	3.6
Breast screening	0	59	1	60	5.1
Teaching	7	26	0	33	2.8
Study/research	4	12	0	16	1.4
Management	19	53	1	73	6.2
Other	6	30	0	36	3.1
Not reported	2	30	0	32	2.7
Total	139	1026	6	1171	100.0

Table 51 shows the main employment setting by work type of the 903 active medical radiation technologists who responded to the 2000 survey. Each medical radiation technologist could specify more than one work type, and Tables 50 and 51 show that many medical radiation technologists worked in more than one field within their main employment setting.

Table 51: *Work type of active medical radiations technologists by main employment setting, 2000*

Employment setting by work type	Diagnostic radiography	Radiography	Diagnostic ultrasound	Computerised tomography	Radionuclide imaging	Magnetic resonance imaging	Breast screening	Teaching	Study/research	Management	Other	Not reported	Total
CHE	299	90	54	62	12	15	17	14	8	40	18	11	640
Private practice (self-employed)	22	0	15	2	0	3	4	0	0	5	1	2	54
Private practice (group practice)	206	0	35	20	6	22	35	4	1	19	12	12	372
Private hospital or rest home	8	0	1	0	0	0	0	0	0	3	0	0	12
University / polytechnic	2	0	0	0	0	0	0	13	5	2	0	0	22
Government dept / Crown agency	3	0	0	1	0	0	0	1	0	1	1	1	8
Other	15	0	0	1	0	0	2	0	2	0	3	2	25
Not reported	15	2	5	3	0	2	2	1	0	3	1	4	38
Total	570	92	110	89	18	42	60	33	16	73	36	32	1171

Country of qualification

New Zealand was the country of qualification for 81.0 percent of medical radiation technologists (see Table 52). Medical radiation technologists who qualified in the United Kingdom accounted for 9.4 percent of those surveyed, and Australia ranked third with 2.8 percent.

Table 52: *Country of qualification of active medical radition technologists, 2000*

Country	Number	Percentage
New Zealand	731	81.0
United Kingdom	89	9.9
Netherlands	6	0.7
South Africa	18	2.0
Canada	7	0.8
Australia	25	2.8
Hungary	1	0.1
Malaysia	1	0.1
USA	6	0.7
Zimbabwe	2	0.2
Not reported	17	1.9
Total	903	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 53: *Geographic distribution of active medical radiation technologists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	848.0	21.2	14.6
Auckland	8731.3	218.3	18.1
Waikato	2916.5	72.9	20.8
Bay of Plenty	1451.5	36.3	14.7
Tairawhiti	195.0	4.9	10.5
Hawke's Bay	959.0	24.0	16.4
Taranaki	598.5	15.0	14.3
Manawatu-Wanganui	1568.0	39.2	14.5
Wellington	2529.5	63.2	16.3
Nelson-Marlborough	729.0	18.2	15.0
West Coast	51.0	1.3	3.9
Canterbury	3904.0	97.6	19.9
Otago	1712.0	42.8	22.6
Southland	492.5	12.3	13.3
Not reported	472.0	11.8	-
Total	27 157.8	678.9	17.7

Hours worked

Table 53 (page 51) shows the number of full-time equivalent (FTE) medical radiation technologists by geographic region. The highest concentration appeared in Otago and Waikato (FTE 20.7 and 20.8 respectively per 100 000 population) and the lowest was in West Coast (FTE 3.9 per 100 000 population). On average there were 17.7 FTE medical radiation technologists per 100 000 population in New Zealand.

Table 54 shows the number of FTE medical radiation technologists in each type of work in their main employment setting. Diagnostic radiography accounted for 50.8 percent of all work undertaken. On average, medical radiation technologists reported that they worked 30.0 hours per week.

Table 54: *Work type of active medical radiation technologists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
Diagnostic radiography	13 786.7	344.7	50.8
Radiography	3476.0	86.9	12.8
Diagnostic ultrasound	3042.5	76.1	11.2
Computerised tomography	1431.1	35.8	5.3
Radionuclide imaging	538.5	13.5	2.0
Magnetic resonance imaging	1123.0	28.1	4.1
Breast screening	898.5	22.5	3.3
Teaching	571.5	14.3	2.1
Study/research	171.0	4.3	0.6
Management	1312.5	32.8	4.8
Other	733.5	18.3	2.7
Not reported	73.0	1.8	0.3
Total	27 157.8	678.9	100.0

Occupational therapists

There were 1372 occupational therapists who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 808 active (working) occupational therapists that responded to the health workforce survey. This represents 58.9 percent of the 2000 APC holders. A further 6.3 percent responded to the 2000 survey but did not report that they were actively working. It is not known if the APC holders who did not respond to the survey (34.8 percent) are working as occupational therapists.

Table 55 shows the number of APCs purchased by occupational therapists each year. Although not all of those purchasing APCs are actively working in the profession, this is an indicator of the size of the occupational therapist workforce. The number of APCs purchased has increased by 56.1 percent from 879 to 1372 over the last 10 years.

Table 55: *Number of Annual Practising Certificates purchased by occupational therapists, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	879	707	80.4
1992/93	927	*	*
1993/94	920	719	78.2
1994/95	982	695	70.8
1995/96	1090	676	62.0
1996/97	1189	758	63.8
1997/98	1134	559	49.3
1998/99	1264	752	59.5
1999/2000	1274	766	60.1
2000/01	1372	808	58.9

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

The active occupational therapy workforce was predominantly female (94.8 percent), as shown in Table 56 and Figure 13.

Table 56: *Age and sex distribution of active occupational therapists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	3	7	7	7	6	1	1	0	0	0	32
Female	38	123	131	108	136	105	54	30	29	12	766
Not reported	0	1	0	1	2	0	0	0	0	6	10
Total	41	131	138	116	144	106	55	30	29	18	808

Fig 13:
Age and sex distribution of active occupational therapists, 2000

(Note: respondents who did not identify their sex have been excluded.)

Ethnicity

Table 57 shows prioritised ethnicity of active occupational therapists (refer to ethnicity notes, Appendix 1, page 83). The majority (82.1 percent) of active occupational therapists identified themselves as belonging to the New Zealand European/Pākehā ethnic group.

Table 57: *Prioritised ethnicity of active occupational therapists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	663	82.1
Other European	106	13.1
New Zealand Māori	5	0.6
Cook Island Māori	1	0.1
South East Asian	2	0.2
Chinese	6	0.7
Indian	2	0.2
Other/Not reported	23	2.8
Total	808	100.0

Note: because of rounding errors, percentages do do not add to 100.0

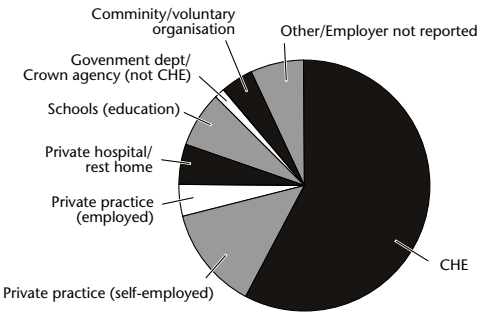
Employment setting

Table 58 shows the breakdown of males and females in each main employment setting for active occupational therapists. Figure 14 (page 56) shows the majority (57.4 percent) worked for CHEs in their main employment setting.

Table 58: *Main employment setting of active occupational therapists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	18	440	6	464	57.4
Private practice (self-employed)	4	105	0	109	13.5
Private practice (employed)	2	32	0	34	4.2
Private hospital or rest home	1	41	0	42	5.2
Schools (education)	2	53	2	57	7.1
Government dept / Crown agency (not CHE)	0	12	0	12	1.5
Community/voluntary organisation	2	30	2	34	4.2
Other	1	32	0	33	4.1
Not reported	2	21	0	23	2.8
Total	32	766	10	808	100.0

Fig 14:
Main employment setting of active occupational therapists, 2000



Work type

Table 59 shows the proportion of occupational therapists working in each work type classification within their main employment setting. Rehabilitation (20.1 percent) and community/domiciliary (14.7 percent) were the most reported work types.

Table 60 (page 58) shows the main employment setting by work type of the 808 active occupational therapists who responded to the 2000 survey. Each occupational therapist could specify more than one work type, and Tables 59 and 60 show that many occupational therapists worked in more than one field, within their main employment setting.

Country of qualification

Table 61 (page 59) shows where occupational therapists received their qualifications. Most occupational therapists practising in New Zealand also qualified here (83.5 percent).

Hours worked

Table 62 (page 59) shows the number of full-time equivalent (FTE) occupational therapists in each geographic region, based on the distribution of 808 active occupational therapists that responded to the survey. On average in New Zealand, there were 17.2 FTE occupational therapists per 100 000 population. In 2000 Otago and the West Coast reported the highest FTEs per 100 000 population, while Southland reported the lowest FTE's per 100 000 population.

Table 59: *Work type of active occupational therapists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Rehabilitation	11	218	1	230	20.1
Medical/surgical	1	64	0	65	5.7
Paediatric	4	126	2	132	11.5
Adolescent	0	19	0	19	1.7
Geriatric	3	68	0	71	6.2
Continuing care (non-psychiatric)	0	21	0	21	1.8
Acute psychiatry	3	43	0	46	4.0
Continuing care (psychiatric)	6	53	0	59	5.1
Community/domiciliary	4	162	3	169	14.7
Acute/intensive care	2	6	0	8	0.7
Intellectual handicap	5	23	2	30	2.6
Teaching	1	33	0	34	3.0
Study/research	0	20	0	20	1.7
Management	6	111	1	118	10.3
Other	3	108	1	112	9.8
Not reported	0	13	0	13	1.1
Total	49	1088	10	1147	100.0

Table 63 (page 60) shows the number of FTE occupational therapists in each type of work. Rehabilitation (22.1 percent) and community/domiciliary (15.6 percent) were the areas where the most time was spent. Occupational therapists reported that they worked 32.7 hours per week on average.

Table 60: *Work type of active occupational therapists by main employment setting, 2000*

Employment setting by work type	Rehabilitation	Medical/surgical	Paediatric	Adolescent	Geriatric	Continuing care (non-psychiatric)	Acute psychiatry	Continuing care (psychiatric)	Community/domiciliary	Acute/intensive care	Intellectual handicap	Teaching	Study/research	Management	Other	Not reported	Total
CHE	119	58	58	6	34	3	42	45	120	8	11	4	5	55	57	6	631
Private practice (self-employed)	56	3	16	1	12	4	0	1	33	0	1	6	4	28	29	4	198
Private practice (employed)	21	1	4	0	3	1	1	1	5	0	5	1	1	6	3	0	53
Private hospital or rest home	11	2	0	0	21	12	2	3	2	0	0	0	0	9	0	0	62
Schools (education)	2	0	36	11	0	0	0	0	0	0	6	11	2	2	1	1	72
Government dept / Crown agency (not CHE)	5	0	1	0	0	0	1	1	0	0	0	3	2	3	3	0	19
Community/voluntary organisation	6	0	7	1	0	1	0	5	3	0	5	0	0	6	7	0	41
Other	6	0	5	0	0	0	0	1	2	0	1	9	6	5	10	0	45
Not reported	4	1	5	0	1	0	0	2	4	0	1	0	0	4	2	2	26
Total	230	65	132	19	71	21	46	59	169	8	30	34	20	118	112	13	1147

Table 61: *Country of qualification of active occuptaional therapists, 2000*

Country	Number	Percentage
New Zealand	675	83.5
United Kingdom	72	8.9
USA	1	0.1
Canada	8	1.0
Australia	13	1.6
South Africa	16	2.0
Germany	3	0.4
Sweden	2	0.2
Netherlands	2	0.2
Dubai	1	0.1
Hong Kong	1	0.1
India	1	0.1
Ireland	1	0.1
Philipines	1	0.1
Not reported	11	1.4
Total	808	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 62: *Geographic distribution of active occupational therapists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	1069.0	26.7	18.4
Auckland	7791.5	194.8	16.1
Waikato	2307.0	57.7	16.5
Bay of Plenty	1533.5	38.3	15.6
Tairawhiti	300.0	7.5	16.1
Hawke's Bay	775.4	19.4	13.3
Taranaki	533.0	13.3	12.8
Manawatu-Wanganui	1387.0	34.7	12.8
Wellington	2739.0	68.5	17.7
Nelson-Marlborough	889.0	22.2	18.2
West Coast	345.0	8.6	26.7
Canterbury	3903.0	97.6	19.9
Otago	2273.0	56.8	30.1
Southland	449.0	11.2	12.1
Overseas	82.0	2.1	-
Not reported	46.0	1.2	-
Total	26 422.4	660.6	17.2

Table 63: *Work type of active occupational therapists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
Rehabilitation	5829.0	145.7	22.1
Medical/surgical	1286.0	32.2	4.9
Paediatric	3431.9	85.8	13.0
Adolescent	351.0	8.8	1.3
Geriatric	1340.0	33.5	5.1
Continuing care (non-psychiatric)	240.0	6.0	0.9
Acute psychiatry	1303.0	32.6	4.9
Continuing care (psychiatric)	1752.0	43.8	6.6
Community/domiciliary	4111.0	102.8	15.6
Acute/intensive care	241.0	6.0	0.9
Intellectual handicap	659.0	16.5	2.5
Teaching	689.0	17.2	2.6
Study/research	174.0	4.4	0.7
Management	2055.0	51.4	7.8
Other	2895.5	72.4	11.0
Not reported	65.0	1.6	0.2
Total	26 422.4	660.6	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Podiatrists

There were 240 podiatrists who purchased Annual Licences (ALs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 127 active (working) podiatrists who responded to the health workforce survey. This represents 52.9 percent of the 2000 licence holders. A further 2.9 percent responded to the 2000 survey but did not report that they were actively working. It is not known if the licence holders who did not respond to the survey (44.1 percent) are working as podiatrists.

Table 64 shows the number of ALs purchased by podiatrists each year. Although not all of those purchasing ALs are actively working in the profession, this is an indicator of the size of the podiatrist workforce. The number of ALs purchased has increased by 27.0 percent from 189 to 240 over the last 10 years.

Table 64: *Number of Annual Licences purchased by podiatrists,1991/92–2000/01*

Year	Number of ALs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	189	172	91.0
1992/93	191	*	*
1993/94	196	119	60.7
1994/95	201	118	58.7
1995/96	232	132	56.9
1996/97	225	140	62.2
1997/98	226	142	62.8
1998/99	242	147	60.7
1999/2000	241	140	58.1
2000/01	240	127	52.9

** see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

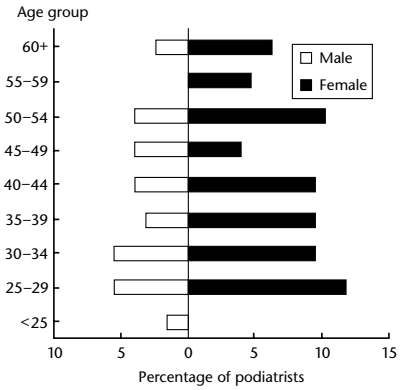
The active podiatry workforce was predominantly female (66.1 percent), as illustrated in Figure 15 and Table 65.

Table 65: *Age and sex distribution of active podiatrists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	2	7	7	4	5	5	5	0	3	3	41
Female	0	15	12	12	12	5	13	6	8	1	84
Not reported	0	0	0	1	0	0	0	0	0	1	2
Total	2	22	19	17	17	10	18	6	11	5	127

Fig 15:
Age and sex distribution of active podiatrists, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 66 shows prioritised ethnicity of active podiatrists (refer to ethnicity notes, Appendix 1, page 83). The majority (82.7 percent) of the active podiatrists identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 66: *Prioritised ethnicity of active podiatrists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	105	82.7
Other European	12	9.4
New Zealand Māori	2	1.6
Chinese	1	0.8
Other	3	2.4
Not reported	4	3.1
Total	127	100.0

Employment setting

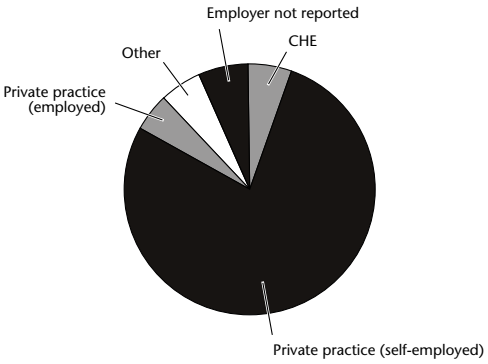
Table 67 shows the breakdown of males and females in each main employment setting. Figure 16 shows that the majority (77.2 percent) of active podiatrists were self-employed in a private practice.

Table 67: *Main employment setting of active podiatrists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	3	4	0	7	5.5
Private practice (self-employed)	28	68	2	98	77.2
Private practice (employed)	3	4	0	7	5.5
Private hospital or rest home	0	3	0	3	2.4
University / polytechnic	0	1	0	1	0.8
Orthotic laboratory representative	1	0	0	1	0.8
Shoe manufacturer's technical representative	0	1	0	1	0.8
Other	1	0	0	1	0.8
Not reported	5	3	0	8	6.3
Total	41	84	2	127	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Fig 16:
Main employment setting of active podiatrists, 2000



Work type

Table 68 shows the number of male and female podiatrists in each work type for 2000. It shows that general podiatry was reported as a work type for 42.7 percent of respondents when working in their main employment setting. Sports medicine (18.7 percent), diabetes podiatry (16.0 percent) were the next most common work types reported.

Table 68: *Work type of active podiatrists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General podiatry	33	78	1	112	42.7
Sports medicine	23	26	0	49	18.7
Diabetes podiatry	12	30	0	42	16.0
Teaching	0	4	0	4	1.5
Study/research	3	9	0	12	4.6
Management	6	18	0	24	9.2
Technical representative	2	2	0	4	1.5
Other	5	6	0	11	4.2
Not reported	2	1	1	4	1.5
Total	86	174	2	262	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 69 shows the main employment setting by work type of the 127 active podiatrists who responded to the 2000 survey. Each podiatrist could specify more than one work type, and Tables 68 and 69 show that many podiatrists worked in more than one field within their main employment setting.

Table 69: *Work type of active podiatrists by main employment setting, 2000*

Employment setting by work type	General podiatry	Sports medicine	Diabetes podiatry	Teaching	Study/research	Management	Technical representative	Other	Not reported	Total
CHE	4	0	4	0	0	0	0	0	0	8
Private practice (self-employed)	91	40	32	3	11	22	3	7	4	213
Private practice (employed)	7	6	3	0	1	0	0	0	0	17
Private hospital or rest home	3	0	0	0	0	1	0	0	0	4
University / polytechnic	0	0	0	1	0	0	0	0	0	1
Orthotic laboratory representative	0	0	0	0	0	0	0	1	0	1
Shoe manufacturer's representative	1	0	1	0	0	0	0	1	0	3
Other	0	0	0	0	0	1	0	1	0	2
Not reported	6	3	2	0	0	0	1	1	0	13
Total	112	49	42	4	12	24	4	11	4	262

Country of qualification

Table 70 shows the majority of podiatrists surveyed in 2000 qualified in New Zealand (84.3 percent).

Table 70: *Country of qualification of active podiatrists, 2000*

Country	Number	Percentage
New Zealand	107	84.3
Australia	1	0.8
South Africa	2	1.6
United Kingdom	10	7.9
USA	1	0.8
Not reported	6	4.7
Total	127	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Hours worked

Table 71 shows the number of full-time equivalent (FTE) podiatrists by geographic region. It shows on average there were 2.7 active podiatrists per 100 000 estimated population. Wellington had the highest rate at 5.4 and Waikato had the lowest with a rate of 1.1 FTEs per 100 000 population.

Table 72 shows the number of FTE podiatrists in each type of work. General podiatry accounted for 65.1 percent of all work types. On average, podiatrists reported that they worked in podiatry 32.0 hours per week.

Table 71: *Geographic distribution of active podiatrists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	74.5	1.9	1.3
Auckland	959.0	24.0	2.0
Waikato	159.0	4.0	1.1
Bay of Plenty	176.0	4.4	1.8
Tairawhiti	24.0	0.6	1.3
Hawke's Bay	291.5	7.3	5.0
Taranaki	65.0	1.6	1.6
Manawatu-Wanganui	283.0	7.1	2.6
Wellington	841.0	21.0	5.4
Nelson-Marlborough	135.0	3.4	2.8
West Coast	40.0	1.0	3.1
Canterbury	705.0	17.6	3.6
Otago	186.0	4.7	2.5
Southland	75.0	1.9	2.0
Not reported	53.0	1.3	-
Total	4067.0	101.7	2.7

Table 72: *Work type of active podiatrists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
General podiatry	2648.5	66.2	65.1
Sports medicine	485.5	12.1	11.9
Diabetes podiatry	417.0	10.4	10.3
Teaching	45.0	1.1	1.1
Study/research	50.0	1.3	1.2
Management	120.0	3.0	3.0
Technical representative	40.0	1.0	1.0
Other	215.0	5.4	5.3
Not reported	46.0	1.2	1.1
Total	4067.0	101.7	100.0

Physiotherapists

There were 2500 physiotherapists who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent in February 2000.

These statistics are based on the 1509 active (working) physiotherapists who responded to the health workforce survey. This represents 60.4 percent of 2000 APC holders. A further 6.4 percent responded to the 2000 survey but did not report that they were active. It is not known if the APC holders who did not respond to the survey (33.2 percent) are working as physiotherapists.

Table 73 shows the number of APCs purchased by physiotherapists each year. Although not all of those purchasing APCs are actively working in the profession, this is an indicator of the size of the physiotherapist workforce. The number of APCs purchased increased by 31.0 percent to 2500 over the last 10 years.

Table 73: *Number of Annual Practising Certificates purchased by physiotherapists, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	1909	1552	81.3
1992/93	1913	*	*
1993/94	1990	1264	63.5
1994/95	2081	1277	61.4
1995/96	2318	1436	61.9
1996/97	2308	1513	65.6
1997/98	2280	1484	65.1
1998/99	2395	1442	60.2
1999/2000	2444	1475	60.4
2000/01	2500	1509	60.4

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

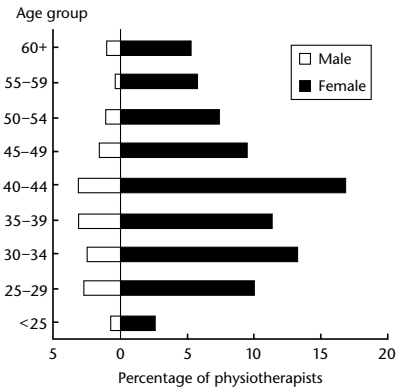
The active physiotherapy workforce was predominantly female (83.0 percent), as illustrated in Table 74 and Figure 17.

Table 74: *Age and sex distribution of active physiotherapists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	10	40	37	46	46	24	16	5	14	4	242
Female	40	152	200	171	254	143	112	87	80	13	1252
Not reported	2	0	2	1	2	0	3	0	1	4	15
Total	52	192	239	218	302	167	131	92	95	21	1509

Fig 17:
Age and sex distribution of active physiotherapists, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 75 (page 70) shows the prioritised ethnicity of active physiotherapists (refer to ethnicity notes, Appendix 1, page 83). The majority (80.1 percent) of the active physiotherapists identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 75: *Prioritised ethnicity of active physiotherapists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	1208	80.1
Other European	200	13.3
New Zealand Māori	11	0.7
Chinese	16	1.1
Samoan	1	0.1
Indian	4	0.3
South East Asian	3	0.2
Other Asian	4	0.3
Other	31	2.1
Not reported	31	2.1
Total	1509	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Employment setting

Table 76 shows the main employment setting of both male and female physiotherapists. Figure 18 shows the majority (36.4 percent) of active physiotherapists were self-employed in private practice. A further 30.5 percent worked for a CHE.

Table 76: *Main employment setting of active physiotherapists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	37	420	3	460	30.5
Private practice (self-employed)	140	403	6	549	36.4
Private practice (employed)	38	164	3	205	13.6
Private hospital or rest home	1	76	2	79	5.2
University / polytechnic	9	40	0	49	3.2
Schools (education service)	1	53	0	54	3.6
Government dept / Crown agency	0	5	0	5	0.3
Commercial/industrial organisation	1	10	0	11	0.7
Voluntary agency	2	5	0	7	0.5
Other	2	21	0	23	1.5
Not reported	11	55	1	67	4.4
Total	242	1252	15	1509	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Fig 18:
Main employment setting of active physiotherapists, 2000

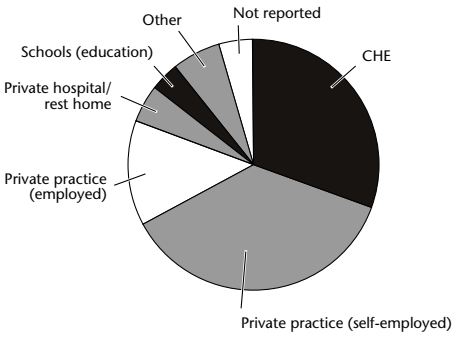


Table 77: *Work type of active physiotherapists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Musculoskeletal inpatient	40	122	1	163	5.2
Musculoskeletal outpatient	168	524	7	699	22.3
Sports physiotherapy	135	309	6	450	14.3
Care of elderly	21	200	3	224	7.1
Mental health	1	24	0	25	0.8
Paediatric neurology	4	119	1	124	4.0
Adult neurology	16	156	0	172	5.5
Other paediatric	4	59	0	63	2.0
Medical/surgical cardiorespiratory	9	107	1	117	3.7
Community/domiciliary	10	136	1	147	4.7
Specialist Education Services	1	20	0	21	0.7
Women's health/obstetrics	3	91	0	94	3.0
Continuing care	1	14	1	16	0.5
Occupational health	25	73	1	99	3.2
Teaching	26	86	0	112	3.6
Study/research	34	101	1	136	4.3
Management	75	249	3	327	10.4
Other	14	106	1	121	3.9
Not reported	4	21	1	26	0.8
Total	591	2517	28	3136	100.0

Work type

Table 77 (page 71) shows the number of male and female physiotherapists in each type of work. Musculoskeletal outpatient was reported as the principal work type for 22.3 percent of respondents when working in their main employment setting. Sports physiotherapy was the second most frequently reported work type, at 14.3 percent.

Table 78 shows the main employment setting by work type of the 1509 physiotherapists who responded to the survey. Each physiotherapist could specify more than one work type, and Tables 77 and 78 show that many physiotherapists worked in more than one field within their main employment setting.

Country of qualification

Table 79 (page 74) shows where physiotherapists received their qualifications. Most physiotherapists practising in New Zealand have also trained here (79.3 percent).

Hours worked

Table 80 (page 74) hows the number of full-time equivalent (FTE) physiotherapists in each geographic region. There was a national average of 16.2 physiotherapists per 100 000 population. West Coast and Northland had fewer reported physiotherapists than the national average, while Otago and Wellington had a higher rate

Table 81 (page 75) shows the number of (FTE) physiotherapists in each type of work. Musculoskeletal outpatient and sports physiotherapy were the areas where most physiotherapists who responded to the survey spent most of their time.

Table 78: *Work type of active physiotherapists by main employment setting, 2000*

Employment setting by work type	Musculoskeletal inpatient	Musculoskeletal outpatient	Sports physiotherapy	Care of elderly	Mental health	Paediatric neurology	Adult neurology	Other paediatric	Medical/surgical cardiorespiratory	Community/domiciliary	Specialist Education Services	Women's health/ obstetrics	Continuing care	Occupational health	Teaching	Study/research	Management	Other	Not reported	Total
CHE	60	120	10	80	11	60	96	38	81	79	2	52	4	10	21	11	69	44	2	850
Private practice (self-employed)	66	377	296	59	10	18	40	6	21	51	1	29	8	62	36	76	207	43	5	1411
Private practice (employed)	18	153	119	12	1	4	11	1	5	9	0	5	2	14	5	17	18	11	4	409
Private hospital or rest home	12	5	0	62	1	0	10	0	6	2	0	2	2	3	6	3	6	3	1	124
University/polytechnic	1	10	1	1	0	0	1	0	2	0	0	0	0	0	35	14	4	3	0	72
Schools (education service)	0	1	0	0	0	36	2	13	0	0	16	0	0	2	4	2	5	1	0	82
Government dept / Crown agency	1	1	0	0	0	1	0	1	0	0	2	0	0	0	0	0	2	2	0	10
Commercial/industrial organisation	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	2	4	2	0	13
Voluntary agency	0	1	0	2	0	1	2	0	0	0	0	1	0	0	1	3	0	1	0	12
Other	1	6	4	3	1	1	7	2	1	4	0	1	0	2	0	1	3	7	1	45
Not reported	4	25	20	5	1	3	3	2	1	1	0	4	0	2	4	7	9	4	13	108
Total	163	699	450	224	25	124	172	63	117	147	21	94	16	99	112	136	327	121	26	3136

Table 79: *Country of qualification of active physiotherapists, 2000*

Country	Number	Percentage
New Zealand	1196	79.3
United Kingdom	161	10.7
Netherlands	38	2.5
Australia	39	2.6
South Africa	21	1.4
Canada	9	0.6
USA	6	0.4
Germany	6	0.4
Switzerland	2	0.1
India	2	0.1
Ireland	2	0.1
Czech Republic	1	0.1
Norway	1	0.1
Russia	1	0.1
Sri Lanka	1	0.1
Zimbabwe	1	0.1
Not reported	22	1.5
Total	1509	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Table 80: *Geographic distribution of active physiotherapists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	1824.0	45.6	31.4
Auckland	14 345.5	358.6	29.7
Waikato	4382.0	109.6	31.3
Bay of Plenty	3375.5	84.4	34.3
Tairawhiti	530.0	13.3	28.5
Hawke's Bay	1667.5	41.7	28.6
Taranaki	1012.5	25.3	24.2
Manawatu-Wanganui	2147.6	53.7	19.8
Wellington	4424.9	110.6	28.5
Nelson-Marlborough	1626.5	40.7	33.4
West Coast	284.0	7.1	22.0
Canterbury	7316.5	182.9	37.3
Otago	3343.5	83.6	44.2
Southland	966.0	24.2	26.0
Not reported	446.0	11.2	-
Total	47 691.0	1192.3	31.1

Table 81: *Work type of active pysiotherapists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
Musculoskeletal inpatient	2719.8	68.0	5.7
Musculoskeletal outpatient	15 626.8	390.7	32.8
Sports physiotherapy	5602.0	140.1	11.7
Care of elderly	3153.0	78.8	6.6
Mental health	280.5	7.0	0.6
Paediatric neurology	2334.0	58.4	4.9
Adult neurology	2643.0	66.1	5.5
Other paediatric	656.2	16.4	1.4
Medical/surgical cardiorespiratory	2000.5	50.0	4.2
Community/domiciliary	2388.0	59.7	5.0
Specialist Education Services	457.0	11.4	1.0
Women's health/obstetrics	799.6	20.0	1.7
Continuing care	91.5	2.3	0.2
Occupational health	1088.5	27.2	2.3
Teaching	1354.2	33.9	2.8
Study/research	1177.5	29.4	2.5
Management	3044.5	76.1	6.4
Other	2198.5	55.0	4.6
Not reported	76.0	1.9	0.2
Total	47 691.0	1192.3	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Registered psychologists

There were 1124 registered psychologists who purchased Annual Practising Certificates (APCs) between March and September 2000. A health workforce survey was included with each invoice sent out in February 2000.

These statistics are based on the 667 active (working) registered psychologists who responded to the health workforce survey. This represents 59.3 percent of the 2000 APC holders. A further 2.8 percent responded to the 2000 survey but did not report they were actively working. It is not known if the APC holders who did not respond to the survey (37.8 percent) are working as registered psychologists.

Table 82 shows the number of APCs purchased by registered psychologists each year. Although not all of those purchasing APCs are actively working in the profession, this is an indicator of the size of the registered psychologist workforce. The number of APCs has increased by 42.6 percent from 788 to 1124 over the last 10 years.

Table 82: *Number of Annual Practising Certificates purchased by registered psychologists, 1991/92–2000/01*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1991/92	788	658	83.5
1992/93	825	*	*
1993/94	834	313	37.5
1994/95	856	558	65.2
1995/96	1066	642	60.2
1996/97	996	686	68.9
1997/98	998	659	66.0
1998/99	1025	611	59.6
1999/2000	1042	598	57.4
2000/01	1124	667	59.3

* *see Appendix 6 (page 91) for a note on 1992 data.*

Demographic data

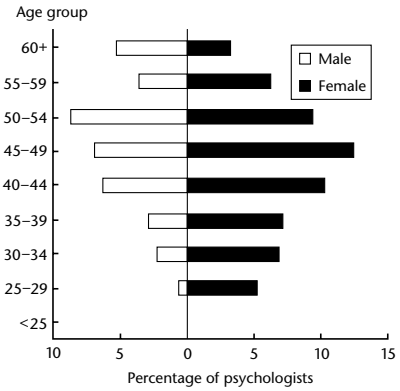
The active registered psychologist workforce was predominantly female (61.9 percent), as depicted in Table 83 and Figure 19.

Table 83: *Age and sex distribution of active registered psychologists, 2000*

Sex	Age group									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	0	4	15	19	42	46	58	24	35	3	246
Female	0	35	46	48	69	83	63	42	22	5	413
Not reported	0	0	0	0	1	0	1	2	0	4	8
Total	0	39	61	67	112	129	122	68	57	12	667

Fig 19:
Age and sex distribution of active registered psychologists, 2000

(Note: respondents who did not identify their sex have been excluded.)



Ethnicity

Table 84 (page 78) shows prioritised ethnicity of active registered psychologists (refer to ethnicity notes, Appendix 1, page 83). The majority (80.7 percent) of the active registered psychologists identified themselves as belonging to the New Zealand European/Pākehā ethnic group.

Table 84: *Prioritised ethnicity of active registered psychologists, 2000*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	538	80.7
Other European	78	11.7
Chinese	3	0.4
New Zealand Māori	9	1.3
Indian	7	1.0
South East Asian	1	0.1
Other/Not reported	31	4.6
Total	667	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Employment setting

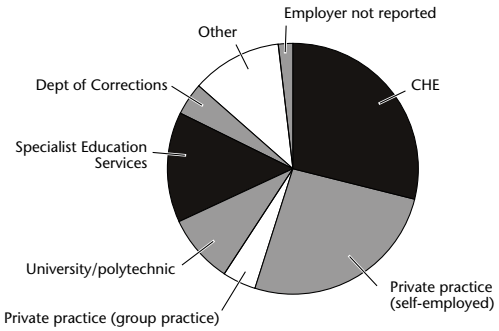
Table 85 shows the breakdown of males and females in the main employment settings. The largest employment setting of registered psychologists was in a Crown health enterprise (CHE). This made up 28.8 percent of the workforce (see Figure 20).

Table 85: *Main employment setting of active registered psychologists, by sex, 2000*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	64	125	3	192	28.8
Private practice (self-employed)	68	104	3	175	26.2
Private practice (group practice)	8	19	0	27	4.0
University / polytechnic	19	41	0	60	9.0
Specialist Education Services	36	59	0	95	14.2
Child, Youth & Family Service	0	10	0	10	1.5
Department of Corrections	12	16	0	28	4.2
Other government department	5	11	1	17	2.5
Commercial/industrial organisation	9	10	0	19	2.8
Voluntary agency	6	4	1	11	1.6
Consultant to public sector employer	2	3	0	5	0.7
Other	7	8	0	15	2.2
Not reported	10	3	0	13	1.9
Total	246	413	8	667	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Fig 20:
Main employment setting of active registered psychologists, 2000



Work type

Table 86 shows the number of male and female psychologists in each work type for 2000. Clinical psychology was reported as the work type for 29.7 percent of respondents when working in their main employment setting.

Table 86: *Work type of active registered psychologists in main employment setting, by sex, 2000*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Clinical psychology	128	246	5	379	29.7
Educational psychology	59	78	0	137	10.8
Industrial/organisational psychology	33	33	1	67	5.3
Personnel management	20	23	0	43	3.4
Rehabilitation	11	16	0	27	2.1
Psychotherapy	34	56	3	93	7.3
Counselling	57	56	2	115	9.0
Teaching	43	66	1	110	8.6
Study	11	20	1	32	2.5
Research	41	53	0	94	7.4
Service management	45	48	1	94	7.4
Other	23	48	0	71	5.6
Not reported	5	7	0	12	0.9
Total	510	750	14	1274	100.0

Table 87 shows the main employment setting by work type of the 667 active registered psychologists who responded to the 2000 survey. Each registered psychologist could specify more than one work type, and Tables 86 and 87 show that many registered psychologists reported worked in more than one field within their main employment setting.

Table 87: *Work type of active registered psychologists by main employment setting, 2000*

Employment setting by work type	**Clinical psychology**	**Educational psychology**	**Industrial/organisational psychology**	**Personnel management**	**Rehabilitation**	**Psychotherapy**	**Counselling**	**Teaching**	**Study**	**Research**	**Service management**	**Other**	**Not reported**	**Total**
CHE	180	3	3	9	7	22	14	13	6	14	25	12	0	308
Private practice (self-employed)	103	24	26	9	15	52	65	26	15	14	18	37	5	409
Private practice (group practice)	15	5	6	1	1	7	3	1	1	1	1	3	2	47
University / polytechnic	16	2	2	1	0	4	6	46	5	41	9	8	1	141
Specialist Education Services	9	89	2	5	1	1	12	5	1	3	15	2	1	146
Child, Youth & Family Services	10	0	0	0	0	1	0	0	0	0	0	0	0	11
Dept of Corrections	24	0	0	3	1	1	1	2	1	3	9	2	0	47
Other government departments	1	1	10	6	0	0	4	5	1	5	5	3	0	41
Commercial/industrial organisation	2	0	16	4	1	0	2	2	1	4	3	0	0	35
Voluntary agency	7	3	0	2	0	3	4	3	1	5	5	1	0	34
Consultant to public sector employer	3	1	0	1	0	0	2	1	0	2	0	1	0	11
Other	6	5	0	1	1	1	2	3	0	1	4	2	0	26
Not reported	3	4	2	1	0	1	0	3	0	1	0	0	3	18
Total	379	137	67	43	27	93	115	110	32	94	94	71	12	1274

Country of qualification

Table 88 shows that the majority of registered psychologists who practise in New Zealand also trained in New Zealand (82.2 percent).

Table 88: *Country of qualification of active registered psychologists, 2000*

Country	Number	Percentage
New Zealand	548	82.2
United Kingdom	30	4.5
Germany	5	0.7
South Africa	32	4.8
Canada	6	0.9
Australia	12	1.8
USA	18	2.7
Yugoslavia	1	0.1
Belgium	1	0.1
Croatia	1	0.1
India	1	0.1
Sweden	1	0.1
Switzerland	1	0.1
Not reported	10	1.5
Total	667	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Hours worked

Table 89 (page 82) shows the number of full-time equivalent (FTE) registered psychologists in each geographic region, based on the distribution of the 667 registered psychologists who responded to the survey. On average in New Zealand, there were 16.2 registered psychologists per 100 000 population. In 2000 West Coast and Northland reported fewer registered psychologists than the national average, whereas Otago and Wellington reported much higher rates per capita.

Table 90 (page 82) shows the number of FTE registered psychologists in each work type. Clinical psychology (43.5 percent) and educational psychology (14.1 percent) were the areas where registered psychologists spent most of their time. On average registered psychologists reported that they worked approximately 37.1 hours per week.

Table 89: *Geographic distribution of active registered psychologists by hours, FTE, 2000*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	458.0	11.5	7.9
Auckland	6980.8	174.5	14.5
Waikato	2135.5	53.4	15.3
Bay of Plenty	1370.5	34.3	13.9
Tairawhiti	162.0	4.1	8.7
Hawke's Bay	470.0	11.8	8.1
Taranaki	486.0	12.2	11.6
Manawatu-Wanganui	1349.0	33.7	12.4
Wellington	3965.0	99.1	25.6
Nelson-Marlborough	863.0	21.6	17.7
West Coast	50.0	1.3	3.9
Canterbury	3823.1	95.6	19.5
Otago	2084.0	52.1	27.6
Southland	400.0	10.0	10.8
Not reported	170.0	4.3	-
Total	24 766.9	619.2	16.2

Table 90: *Work type of active registered psychologists at their main employment setting by hours, FTE, 2000*

Work type	Hours	FTE	Percentage
Clinical psychology	10 777.5	269.4	43.5
Educational psychology	3490.4	87.3	14.1
Industrial/organisation psychology	1623.0	40.6	6.6
Personnel management	494.0	12.4	2.0
Rehabilitation	464.0	11.6	1.9
Psychotherapy	1167.0	29.2	4.7
Counselling	1231.0	30.8	5.0
Teaching	1478.5	37.0	6.0
Study	168.5	4.2	0.7
Research	1151.0	28.8	4.6
Service management	1562.0	39.1	6.3
Other	1060.0	26.5	4.3
Not reported	100.0	2.5	0.4
Total	24 766.9	619.2	100.0

Note: because of rounding errors, percentages do do not add to 100.0

Appendix 1

Ethnicity

The ethnicity of active selected health professionals in New zealand was self-identified. The following explanation of ethnicity was included in the survey notes to assist active medical practitioners in identifying their ethnic groups. The ethnic groups chosen were then prioritised. The prioritisation system used is included in the table below. This is the standard prioritisation of ethnicity used by Statistics New Zealand and the New Zealand Health Information Service.

The opportunity to select more than one ethnicity for each of the selected health professions was introduced in the 1996 workforce surveys. This means that a new time series of prioritised ethnicity for the selected health professionals started in 1996. For this reason ethnicity data since 1996 cannot be compared with previous years.

The table details the ethnic categories included in the survey results and the order of prioritisation.

Ethnicity	Prioritisation order
New Zealand European / Pākehā	9
New Zealand Māori	1
Pacific Island	2
South East Asian	3
Indian	4
Chinese	5
Other Asian	6
Other	7
Other European	8
Not reported	10

Appendix 2

Employer

The workforce survey asks each selected health profession to report on their employment setting. The survey allows respondents to report a main, a secondary and a tertiary employer. The analysis in this publication is based on the respondents' main employment setting.

The following employment setting categories were included in the survey results as stated for each of the selected professions.

Optometrists
- Private practice (self-employed)
- Private practice (employed by an optometrist)
- Private practice (employed by a dispensing optician)
- CHE
- University
- Other employer
- Employment setting not reported

Dispensing opticians
- Private practice (self-employed)
- Private practice (employed by an optometrist)
- Private practice (employed by a dispensing optician)
- Other employer
- Employment setting not reported

Chiropractors
- Private practice (self-employed)
- Private practice (employed)
- Other employer
- Employment setting not reported

Dietitians
- CHE
- Private practice (self-employed)
- Private practice (group practice)
- University/polytechnic
- Government dept/Crown agency
- Commercial/industrial organisation
- Other employer
- Employment setting not reported

Medical laboratory technologists
- CHE
- Private practice (self-employed)
- Private practice (group practice)
- University/polytechnic
- Government dept/Crown agency
- Commercial/industrial organisation
- Other employer
- Employment setting not reported

Medical radiation technologists
- CHE
- Private practice (self-employed)
- Private practice (employed)
- Private hospital or rest home
- University/polytechnic
- Government dept/Crown agency
- Other employer
- Employment setting not reported

Occupational therapists
- CHE
- Private practice (self-employed)
- Private practice (employed)
- Private hospital or rest home
- Schools (education service)
- Government dept/Crown agency
- Community/voluntary organisation
- Other employer
- Employment setting not reported

Podiatrists
- CHE
- Private practice (self-employed)
- Private practice (employed)
- Private hospital or rest home
- University/polytechnic
- Orthotic laboratory representative
- Shoe manufacturer's representative
- Other employer
- Employment setting not reported

Physiotherapists
- CHE
- Private practice (self-employed)
- Private practice (employed)
- Private hospital or rest home
- University/polytechnic
- Schools (education)
- Government dept/Crown agency
- Commercial/industrial organisation
- Voluntary agency
- Other employer
- Employment setting not reported

Registered psychologists
- CHE
- Private practice (self-employed)
- Private practice (employed)
- University/polytechnic
- Specialist Education Services
- Child, Youth and Family Service
- Department of Corrections
- Other government departments
- Commercial/industrial organisation
- Voluntary agency
- Consultant to public sector employer
- Other employer
- Employment setting not reported

Appendix 3

Work type

The workforce survey asks each selected health profession to classify themselves in any number of work type categories for up to three employers. The total number of respondents for each work type is therefore greater than the number of individual responses. The tables in this publication which refer to the number of respondents per work type use the categories which were classified for the main employer only.

The following work type categories were included in the survey results as stated for each of the selected professions.

Optometrists
- General optometry
- Teaching
- Study/research
- Management
- Other work type
- Work type not reported

Dispensing opticians
- General dispensing
- Teaching
- Study/research
- Management
- Other work type
- Work type not reported

Chiropractors
- General chiropractic
- Study/research
- Management
- Other work type
- Work type not reported

Dietitians
- Clinical inpatients
- Clinical outpatients
- Community/district/domiciliary
- Food service management
- Health promotion
- Consultancy/advisory
- Sports nutrition
- Administration
- General management
- Teaching
- Study/research
- Other work type
- Work type not reported

Medical laboratory technologists
- Clinical biochemistry
- Haematology
- Microbiology
- Transfusion science
- Immunology
- Histology
- Cytology
- Virology
- Cytogenetics
- Nuclear medicine
- Serology
- General medical laboratory technology
- Teaching
- Study/research
- Management
- Other work type
- Work type not reported

Medical radiation technologists
- Diagnostic radiography
- Radiotherapy
- Diagnostic ultrasound
- Computerised tomography
- Radionuclide imaging
- Magnetic resonance imaging
- Breast screening
- Teaching
- Study/research
- Management
- Other work type
- Work type not reported

Occupational therapists
- Rehabilitation
- Medical/surgical
- Paediatric
- Adolescent
- Geriatric
- Continuing care (non-psychiatric)
- Acute psychiatry
- Continuing care (psychiatric)
- Community/domiciliary
- Acute/intensive
- Intellectual handicap
- Teaching
- Study/research
- Management
- Other work type
- Work type not reported

Podiatry
- General podiatry
- Sports medicine
- Diabetes podiatry
- Teaching
- Study/research
- Management
- Technical representative
- Other work type
- Work type not reported

Physiotherapists
- Musculoskeletal inpatient
- Musculoskeletal outpatient
- Sports physiotherapy
- Care of elderly
- Mental health
- Paediatric neurology
- Adult neurology
- Other paediatric
- Medical/surgical cardiorespiratory
- Community/domiciliary
- Special Education Services
- Women's health/obstetrics
- Continuing care
- Occupational health
- Teaching
- Study/research
- Management
- Other work type
- Work type not reported

Registered psychologists
- Clinical psychology
- Educational psychology
- Industrial/organisational psychology
- Personnel management
- Rehabilitation
- Psychotherapy
- Counselling
- Teaching
- Study
- Research
- Service management
- Other work type
- Work type not reported

Appendix 4

Geographic regions

The geographic regions used in this publication are the regions that were once known as Area Health Board (AHB) districts. This is based on the address of each respondent's main employer. This classification allows a consistent time-series comparison for active selected health professionals in New Zealand. The map below shows the boundary of each AHB district, and the table opposite lists the territorial local authorities (TLAs) included in each AHB. The TLA grouping was determined by Statistics New Zealand.

Area Health Board district	TLAs included within Area Health Board district
Northland	Far North, Whangarei, Kaipara
Auckland	Rodney, North Shore, Waitakere, Auckland, Manakau, Papakura, Franklin
Waikato	Thames-Coromandel, Hauraki, Waikato, Matamata-Piako, Hamilton, Waipa, Otorohanga, South Waikato, Waitomo, Taupo, Ruapehu
Bay of Plenty	Western Bay of Plenty, Tauranga, Rotorua, Whakatane, Kawerau, Opotiki
Tarawhiti	Gisborne
Hawke's Bay	Wairoa, Hastings, Napier, Central Hawke's Bay, Chatham Islands
Taranaki	New Plymouth, Stratford, South Taranaki
Manawatu-Wanganui	Wanganui, Rangitikei, Manawatu, Palmerston North, Tararua, Horowhenua
Wellington	Kapiti Coast, Porirua, Upper Hutt, Lower Hutt, Wellington, Masterton, Carterton, South Wairarapa
Nelson-Marlborough	Tasman, Nelson, Marlborough
West Coast	Buller, Grey, Westland
Canterbury	Kaikoura, Hurunui, Waimakariri, Christchurch, Banks Peninsula, Selwyn, Ashburton, Timaru, Mackenzie, Waimate
Otago	Waitaki, Central Otago, Queenstown Lakes, Dunedin, Clutha
Southland	Southland, Gore, Invercargill

Notes:

- The Waikato AHB district includes the Ruapehu TLA, to include the major population centre of Taumaranui, though a third of this TLA was actually in the Manawatu-Wanganui AHB.
- The Wellington AHB includes the Kapiti TLA, to include the major population centres of Paraparaumu and Waikanae, though the northern part of this TLA was actually in the Manawatu-Wanganui AHB.

Appendix 5

Population data

The New Zealand population used for the calculation of rates is the estimated resident population for 30 June 2000 (source – Statistics New Zealand).

Area Health Board	Population
Northland	145 300
Auckland	1 207 700
Waikato	349 860
Bay of Plenty	246 370
Tairawhiti	46 500
Hawke's Bay	145 880
Taranaki	104 460
Manawatu-Wanganui	270 900
Wellington	387 840
Nelson-Marlborough	121 900
West Coast	32 320
Canterbury	490 160
Otago	189 050
Southland	92 900
New Zealand	3 831 000

Note: Owing to rounding, figures in this table do not add to give the stated total.

Appendix 6

Explanatory notes

Data collection

The annual cycle for collecting the New Zealand Selected Health Professional Workforce Survey information begins with the distribution of the questionnaire with the invoice for the Annual Practising Certificates or Annual Licences. When the bulk of responses have been returned, the survey is closed off. There will be a few selected health professionals who purchased their practising certificate or licence part way through the year (after close-off date), and these people are not included in the survey.

Definition of full-time equivalents (FTE)

In this publication full-time equivalents have been calculated by summing the hours worked by each individual (across their main employer and all work categories reported for that employer). FTEs are calculated on the basis of 40 hours per week equalling one FTE. Where respondents indicated that they worked less than 40 hours, they have been included as a proportion of an FTE; where a respondent indicated that they worked more than 40 hours, they have been included as more than one FTE.

ie, hours worked / 40 = number of FTEs.

1992 data

In 1992 the workforce questionnaires were posted out independently of the annual practising certificate/licence invoice. The number of completed surveys returned to the Department of Health was much lower than in other years (35.2 percent overall). The time-series data in this publication therefore excludes 1992 data.