Selected Health Professional Workforce in New Zealand 1999

New Zealand Health Information Service
March 2000

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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
March 2000

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Special thanks are also due to the Occupational Registration Board Secretariat, who reviewed the draft manuscript, provided welcome comment and suggestions and distributed the workforce survey forms to each selected health profession.

Most of all, the New Zealand Health Information Service would like to thank all the respondents from the selected health professions who completed the 1999 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 the public and private sectors who purchased an Annual Practising Certificate (APC) or Annual Licence (AL) between March 1999 and August 1999. 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.

A respondent was 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 also 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 1999 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, so 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 *New Zealand Health Workforce 1994*, *New Zealand Medical Practitioners 1997* and *New Zealand Nurses and Midwives 1997*. 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 468 optometrists who purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 329 active (working) optometrists who responded to the health workforce survey. This represents 70.3 percent of optometrists who are 1999 APC holders. A further 6.4 percent of optometrists responded to the 1999 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 (23.3 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 70.8 percent from 274 to 468 over the last 10 years.

Table 1: *Number of Annual Practising Certificates purchased by optometrists, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	274	258	94.2
1991/92	337	303	89.9
1992/93	330	*	*
1993/94	346	269	77.7
199 4/95	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

** see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

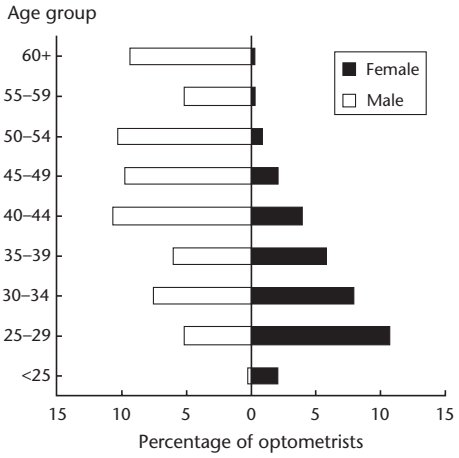
The active optometrist workforce was predominantly male in 1999. Males accounted for 65.3 percent of optometrists as depicted in Table 2 and Figure 1.

Table 2: *Age and sex distribution of active optometrists, 1999.*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	1	17	25	20	35	32	34	17	31	3	215
Female	7	35	26	19	13	7	3	1	1	1	113
Not reported	0	0	0	0	0	0	0	0	0	1	1
Total	8	52	51	39	48	39	37	18	32	5	329

Figure 1:
Age and sex distribution of active optometrists, 1999

(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, page 82). The majority of the active optometrists (76.9 percent) identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 3: *Prioritised ethnicity of active optometrists, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	253	76.9
Other European	34	10.3
Chinese	17	5.2
Other Asian	4	1.2
New Zealand Māori	2	0.6
Pacific Island	2	0.6
Indian	2	0.6
Other	6	1.8
Not reported	9	2.7
Total	329	100.0

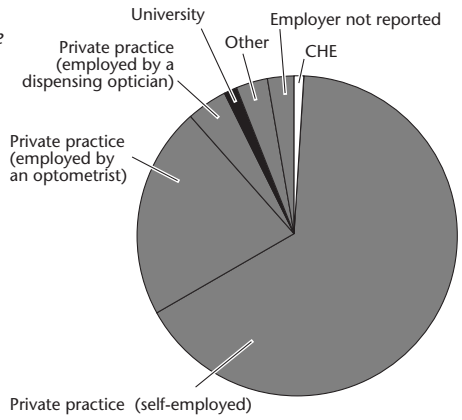
Employment setting

Table 4 illustrates the main employment setting of both male and female active optometrists. Figure 2 (page 14) shows that the majority (65.7 percent) of active optometrists were self-employed in private practice. There were only three optometrists who reported that their main employment was with a CHE (Crown health enterprise; see page 90).

Table 4: *Main employment setting of active optometrists, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	2	1	0	3	0.9
Private practice (self-employed)	168	47	1	216	65.7
Private practice (employed by an optometrist)	24	48	0	72	21.9
Private practice (employed by a dispensing optician)	6	7	0	13	4.0
University	4	1	0	5	1.5
Other	4	7	0	11	3.3
Not reported	7	2	0	9	2.7
Total	215	113	1	329	100.0

Figure 2:
Main employment setting of active optometrists, 1999



Work type

General optometry was reported as the work type for 62.0 percent of respondents when working in their main employment setting (see Table 5). Management was the second most frequently reported work type, at 25.7 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, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General optometry	209	108	1	318	62.0
Management	98	34	0	132	25.7
Study/research	33	8	0	41	8.0
Teaching	7	4	0	11	2.1
Other	4	4	0	8	1.6
Not reported	2	1	0	3	0.6
Total	353	159	1	513	100.0

Table 6 shows the main employment setting by work type of the 329 active optometrists who responded to the 1999 survey. Each optometrist could specify more than one work type, and these tables show that many optometrists worked in more than one field within their main employment setting.

Table 6: *Work type by main employment setting of active optometrists, 1999*

Employment setting by work type	General optometry	Teaching	Study/research	Management	Other	Not reported	Total
CHE	3	1	0	0	0	0	4
Private practice (self-employed)	212	2	30	120	3	2	369
Private practice (employed by an optometrist)	72	1	6	6	3	0	88
Private practice (employed by a dispensing optician)	13	1	1	1	0	0	16
University	1	5	3	2	0	0	11
Other	8	1	0	2	2	1	14
Not reported	9	0	1	1	0	0	11
Total	318	11	41	132	8	3	513

Country of qualification

Table 7 shows that most of the active optometrists in New Zealand, (80.5 percent) were New Zealand graduates. Most overseas graduates qualified in the United Kingdom (12.8 percent) and Australia (3.3 percent).

Table 7: *Country of qualification of active optometrists, 1999*

Country	Number	Percentage
New Zealand	265	80.5
United Kingdom	42	12.8
Australia	11	3.3
South Africa	8	2.4
Not reported	3	0.9
Total	329	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 8.5 active optometrists per 100 000 estimated population. Manawatu-Wanganui and Auckland had the highest ratios and Northland and Southland the lowest.

Table 8: *Geographic distribution of active optometrists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	325.0	8.1	5.7
Auckland	4224.0	105.6	9.2
Waikato	1075.0	26.9	7.4
Bay of Plenty	779.0	19.5	8.2
Tairawhiti	115.0	2.9	6.1
Hawke's Bay	408.0	10.2	6.9
Taranaki	274.0	6.9	6.3
Manawatu-Wanganui	801.0	20.0	9.3
Wellington	1558.0	39.0	9.1
Nelson-Marlborough	433.5	10.8	9.0
West Coast	96.0	2.4	7.3
Canterbury	1616.0	40.4	8.4
Otago	639.0	16.0	9.1
Southland	261.0	6.5	5.8
Not reported	120.0	3.0	-
Total	12 724.5	318.1	8.5

Table 9 shows the number of FTE optometrists across main employment setting by work type for 1999. This shows general optometry was reported to account for 89.3 percent of working time. On average, optometrists reported that they worked approximately 38.7 hours per week.

Table 9: *Work type of active optometrists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
General optometry	11 367.0	284.2	89.3
Management	977.5	24.4	7.7
Teaching	162.5	4.1	1.3
Study/research	171.5	4.3	1.3
Other	46.0	1.2	0.4
Total	12 724.5	318.1	100.0

Dispensing opticians

There were 85 dispensing opticians who purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 57 active (working) dispensing opticians who responded to the health workforce survey. This represents 67.1 percent of dispensing opticians who are 1999 APC holders. A further 8.2 percent of dispensing opticians responded to the 1999 survey but did not report they were actively working. It is not known if the APC holders who did not respond to the survey (24.7 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 increased 73.5 percent from 49 to 85 over the last 10 years.

Table 10: *Number of Annual Practising Certificates purchased by dispensing opticians, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	49	49	100.0
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

* *see the note on 1992 data in Appendix 6 (page 90).*

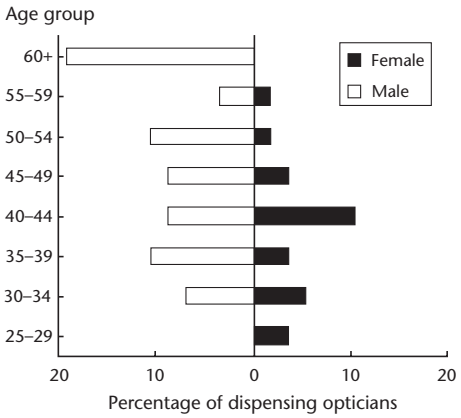
Demographic data

The active dispensing optician workforce was predominantly male. Males accounted for 68.4 percent of dispensing opticians, as depicted in Table 11 and Figure 3.

Table 11: *Age and sex distribution of active dispensing opticians, 1999.*

Sex	Age groups								Not reported	Total
	25–	30–	35–	40–	45–	50–	55–	60+		
Male	0	4	6	5	5	6	2	11	0	39
Female	2	3	2	6	2	1	1	0	1	18
Total	2	7	8	11	7	7	3	11	1	57

Figure 3:
Age and sex distribution of active dispensing opticians, 1999



Ethnicity

Table 12 (page 20) shows prioritised ethnicity of active dispensing opticians (refer to ethnicity notes, Appendix 1, page 82). The majority of the active dispensing opticians identified themselves as belonging to the New Zealand/Pākehā ethnic group (71.9 percent).

Table 12: Prioritised ethnicity of active dispensing opticians, 1999

Ethnic group	Number	Percentage
New Zealand European/Pākehā	41	71.9
Other European	11	19.3
Other	3	5.3
Not reported	2	3.5
Total	57	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 (43.9 percent) of active dispensing opticians were self-employed in private practice. This was the main employment setting for 33.3 percent of females and 48.7 percent of males.

Table 13: Main employment setting of active dispensing opticians, by sex, 1999

Employment setting	Male	Female	Total	
			Number	Percentage
Private practice (self-employed)	19	6	25	43.9
Private practice (employed by an optometrist)	6	4	10	17.5
Private practice (employed by a dispensing optician)	9	4	13	22.8
Other	3	3	6	10.5
Not reported	2	1	3	5.3
Total	39	18	57	100.0

Work type

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

Figure 4:
Main employment setting of active dispensing opticians, 1999

The most common work type for dispensing opticians was general dispensing (48.6 percent) when working in their main employment setting. Management was the second most frequently reported work type, at 30.6 percent.

Table 15 (page 22) shows the main employment setting by work type of the 57 active dispensing opticians who responded to the 1999 survey. Each dispensing optician could specify more than one work type, and these tables 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, 1999*

Work type	Male	Female	Total	
			Number	Percentage
General dispensing	36	18	54	48.6
Management	24	10	34	30.6
Teaching	7	2	9	8.1
Study/research	6	2	8	7.2
Other	4	2	6	5.4
Total	77	34	111	100.0

Table 15: *Work type by main employment setting of active dispensing opticians, 1999*

Employment setting by work type	General dispensing	Teaching	Study/research	Management	Other	Total
Private practice (self-employed)	23	5	5	19	4	56
Private practice (employed by an optometrist)	10	0	1	3	0	14
Private practice (employed by a dispensing optician)	12	3	1	7	1	24
Other	6	1	1	4	1	13
Not reported	3	0	0	1	0	4
Total	54	9	8	34	6	111

Country of qualification

Table 16 shows that the majority of active dispensing opticians who practise in New Zealand also qualified here (64.9 percent). Most overseas graduates qualified in the United Kingdom (17.5 percent) and Australia (5.3 percent), with 7.0 percent not reporting where they graduated.

Table 16: *Country of qualification of active dispensing opticians, 1999*

Country	Number	Percentage
New Zealand	37	64.9
United Kingdom	10	17.5
Australia	3	5.3
Austria	1	1.8
Germany	1	1.8
Switzerland	1	1.8
Not reported	4	7.0
Total	57	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. Northland had the highest reported rate at 3.7 FTEs per 100 000 population and Manawatu-Wanganui the lowest at 0.5 FTEs per 100 000 population.

Table 18 shows the number of FTE dispensing opticians at their main employment setting by work type for 1999. General dispensing was reported to account for 74.2 percent of working time. On average, dispensing opticians reported that they worked approximately 38.0 hours per week.

Table 17: *Geographic distribution of active dispensing opticians by hours, FTE, 1999*
Note: there were no respondents who worked in the Bay of Plenty, Nelson-Marlborough, West Coast or Southland geographic regions.

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	208.0	5.2	3.7
Auckland	969.5	24.2	2.1
Waikato	196.0	4.9	1.4
Tairawhiti	60.0	1.5	3.2
Hawke's Bay	83.8	2.1	1.4
Taranaki	37.5	0.9	0.9
Manawatu-Wanganui	45.0	1.1	0.5
Wellington	314.0	7.9	1.8
Canterbury	214.5	5.4	1.1
Otago	40.0	1.0	0.6
Total	2168.3	54.2	1.4

Table 18: *Work type of active dispensing opticians at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
General dispensing	1609.3	40.2	74.2
Management	423.0	10.6	19.5
Teaching	25.0	0.6	1.2
Study/research	26.0	0.7	1.2
Other	85.0	2.1	3.9
Total	2168.3	54.2	100.0

Chiropractors

There were 188 chiropractors who purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 135 active (working) chiropractors who responded to the health workforce survey. This represents 71.8 percent of the 1999 APC holders. A further 1.6 percent responded to the 1999 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 (26.6 percent) are actively working as registered 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 chiropractic workforce. The number of APCs purchased has increased by 72.5 percent from 109 to 188 over the last 10 years.

Table 19: *Number of Annual Practising Certificates purchased by chiropractors, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	109	105	96.3
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

* *see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

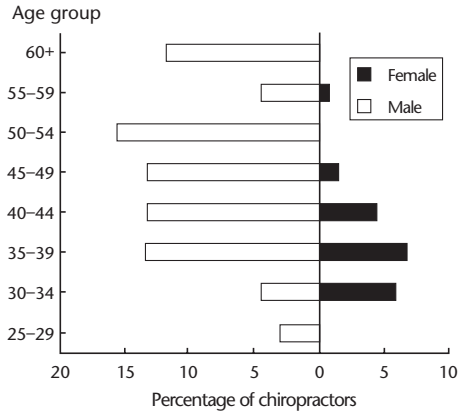
The active chiropractic workforce was predominantly male. Males accounted for 79.3 percent of chiropractors, as depicted in Table 20 and Figure 5.

Table 20: *Age and sex distribution of active chiropractors, 1999.*

Sex	Age groups								Total
	25–	30–	35–	40–	45–	50–	55–	60+	
Male	4	6	18	18	18	21	6	16	107
Female	0	8	9	6	2	0	1	0	26
Not reported	0	0	0	1	0	0	1	0	2
Total	4	14	27	25	20	21	8	16	135

Figure 5:
Age and sex distribution of active chiropractors, 1999

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



Ethnicity

Table 21 (page 26) shows the prioritised ethnicity of active chiropractors (see ethnicity notes, Appendix 1, page 82). The majority of the active chiropractors identified themselves as belonging to the New Zealand European/Pākehā ethnic group (72.6 percent).

Table 21: *Prioritised ethnicity of active chiropractors, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	98	72.6
Other European	17	12.6
New Zealand Māori	7	5.2
Pacific Island	1	0.7
Indian	1	0.7
Other	8	5.9
Not reported	3	2.2
Total	135	100.0

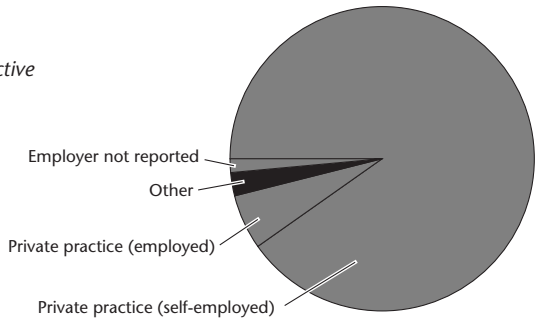
Employment setting

Table 22 illustrates the main employment setting of active chiropractors. Figure 6 shows that the majority (90.4 percent) of active chiropractors were self-employed in a private practice.

Table 22: *Main employment setting of active chiropractors, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
Private practice (self-employed)	98	22	2	122	90.4
Private practice (employed)	5	3	0	8	5.9
Other	2	1	0	3	2.2
Not reported	2	0	0	2	1.5
Total	107	26	2	135	100.0

Figure 6:
Main employment setting of active chiropractors, 1999



Work type

Table 23 shows that general chiropractic practice was reported as the work type for 46.8 percent of respondents when working in their main employment setting. Management was the second most frequently reported work type, at 28.4 percent.

Table 24 shows the main employment setting by work type of the 135 active chiropractors who responded to the 1999 survey. Each chiropractor could specify more than one work type, and these tables show that many chiropractors work in more than one field within their main employment setting.

Table 23: *Work type of active chiropractors in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General chiropractic	103	25	2	130	46.8
Management	63	15	1	79	28.4
Study/research	49	12	1	62	22.3
Other	5	1	0	6	2.2
Not reported	1	0	0	1	0.4
Total	221	53	4	278	100.0

Table 24: *Work type by main employment setting of active chiropractors, 1999*

Employment setting by work type	General chiropractic	Study/research	Management	Other	Not reported	Total
Private practice (self-employed)	119	58	76	3	1	257
Private practice (employed)	8	2	2	2	0	14
Other	1	1	0	1	0	3
Not reported	2	1	1	0	0	4
Total	130	62	79	6	1	278

Country of qualification

Table 25 shows where chiropractors received their qualifications. In 1999, the majority (53.3 percent) of respondents to the workforce survey obtained their chiropractic qualifications in the United States of America, followed by Australia (28.1 percent). New Zealand graduates accounted for 3.0 percent of all respondents.

Table 25: *Country of qualification of active chiropractors, 1999*

Country	Number	Percentage
USA	72	53.3
Australia	38	28.1
New Zealand	4	3.0
United Kingdom	9	6.7
Canada	5	3.7
Not reported	7	5.2
Total	135	100.0

Hours worked

Table 26 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 7.4 FTEs per 100 000 population. The lowest concentration was in Tairawhiti, where there were 2.1 FTEs per 100 000 population.

The various amounts of time spent by chiropractors in each type of work are shown in Table 27. General chiropractic practice took up the majority of the work time of chiropractors, equating to 107.4 FTEs. On average, chiropractors reported that they worked approximately 38.3 hours per week.

Table 26: *Geographic distribution of active chiropractors by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	275.0	6.9	4.9
Auckland	1450.0	36.3	3.1
Waikato	321.0	8.0	2.2
Bay of Plenty	335.0	8.4	3.5
Tairawhiti	40.0	1.0	2.1
Hawke's Bay	237.0	5.9	4.0
Taranaki	190.0	4.8	4.4
Manawatu-Wanganui	334.0	8.4	3.9
Wellington	703.5	17.6	4.1
Nelson-Marlborough	356.0	8.9	7.4
West Coast	75.0	1.9	5.7
Canterbury	529.0	13.2	2.7
Otago	188.0	4.7	2.7
Southland	132.0	3.3	2.9
Total	5165.5	129.1	3.4

Table 27: *Work type of active chiropractors at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
General chiropractic	4297.5	107.4	83.2
Management	423.0	10.6	8.2
Study/research	369.0	9.2	7.1
Other	53.0	1.3	1.0
Not reported	23.0	0.6	0.4
Total	5165.5	129.1	100.0

Dietitians

There were 334 dietitians who purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 239 active (working) dietitians who responded to the health workforce survey. This represents 71.6 percent of the 1999 APC holders. A further 4.2 percent did not report that they were actively working. It is not known if the APC holders who did not respond to the survey (24.3 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 15.2 percent from 290 to 334 over the last 10 years.

Table 28: *Number of Annual Practising Certificates purchased by dietitians, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	290	249	85.9
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

* *see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

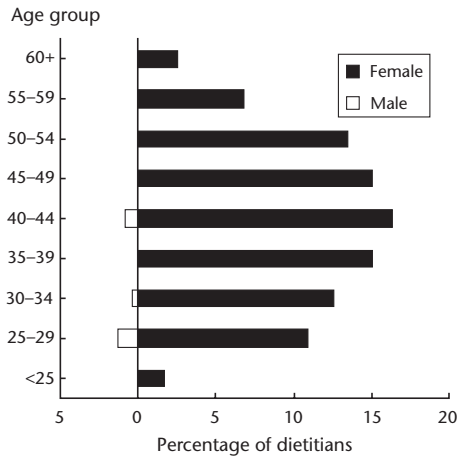
The active dietitian workforce was predominantly female (95.4 percent), as illustrated in Table 29 and Figure 7.

Table 29: *Age and sex distribution of active dietitians, 1999.*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	0	3	1	0	2	0	0	0	0	0	6
Female	4	26	30	36	39	36	32	16	6	3	228
Not reported	0	0	0	0	2	0	1	0	0	2	5
Total	4	29	31	36	43	36	33	16	6	5	239

Figure 7:
Age and sex distribution of active dietitians, 1999

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



Ethnicity

Table 30 (page 32) shows prioritised ethnicity of active dietitians (refer to ethnicity notes, Appendix 1, page 82). The majority (86.2 percent) of the active dietitians identified themselves as belonging to the New Zealand European/Pākehā ethnic group (86.2 percent).

Table 30: *Prioritised ethnicity of active dietitians, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	206	86.2
Other European	12	5.0
Chinese	9	3.8
New Zealand Māori	6	2.5
Pacific Island	1	0.4
Other/not reported	5	2.1
Total	239	100.0

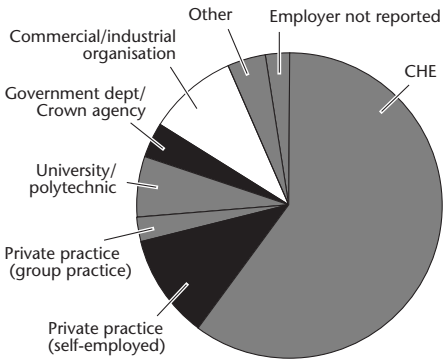
Employment setting

Table 31 shows the breakdown of males and females in each main employment setting. Figure 8 shows that the majority (60.3 percent) of active dietitians were working for CHEs (Crown health enterprises; see page 90). Thirteen percent were working primarily in private practice.

Table 31: *Main employment setting of active dietitians, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	3	139	2	144	60.3
Private practice (self-employed)	0	25	1	26	10.9
Private practice (group practice)	0	6	0	6	2.5
University / polytechnic	1	14	1	16	6.7
Government dept / Crown agency	1	8	0	9	3.8
Commercial/industrial organisation	0	22	0	22	9.2
Other	1	10	0	11	4.6
Not reported	0	4	1	5	2.1
Total	6	228	5	239	100.0

Figure 8:
Main employment setting of active dietitians, 1999



Work type

Table 32 shows the number of dietitians in each work type for 1999. Clinical outpatients (21.4 percent) and clinical inpatients (18.0 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, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Clinical outpatients	3	96	1	100	21.4
Clinical inpatients	2	81	1	84	18.0
Health promotion	1	40	2	43	9.2
Administration	2	36	0	38	8.1
Teaching	1	35	1	37	7.9
Consultancy/advisory	0	31	2	33	7.1
General management	1	31	0	32	6.9
Food service management	0	28	0	28	6.0
Study/research	3	21	0	24	5.1
Community/district/domiciliary	1	22	0	23	4.9
Sports nutrition	0	7	0	7	1.5
Other	0	14	0	14	3.0
Not reported	0	4	0	4	0.9
Total	14	446	7	467	100.0

Table 33 shows the main employment setting by work type of the 239 active dietitians who responded to the 1999 survey. Each dietitian could specify more than one work type, and these tables show that many dietitians worked in more than one field within their main employment setting.

Table 33: *Work type by main employment setting of active dietitians, 1999*

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	76	82	21	18	23	9	0	23	21	13	10	4	2	302
Private practice (self-employed)	1	7	0	0	5	13	5	3	1	6	2	2	1	46
Private practice (group practice)	0	5	0	0	0	1	1	0	0	0	1	0	0	8
University / polytechnic	0	1	0	0	1	1	0	7	3	12	7	0	0	32
Government dept / Crown agency	1	1	0	0	4	0	0	0	0	0	1	3	0	10
Commercial/industrial organisation	5	1	1	7	2	7	0	2	2	1	1	5	0	34
Other	0	0	0	3	5	2	1	2	4	4	1	0	1	23
Not reported	1	3	1	0	3	0	0	1	1	1	1	0	0	12
Total	84	100	23	28	43	33	7	38	32	37	24	14	4	467

Country of qualification

Most active dietitians (90.4 percent) qualified in New Zealand (Table 34). Most overseas graduates came from the United Kingdom (2.1 percent).

Hours worked

Table 35 shows the number of full-time equivalent (FTE) dietitians by geographic region. The national average was 4.5 per 100 000 population. Canterbury and Otago had the highest average ratios while Bay of Plenty had the lowest average ratio.

Table 34: *Country of qualification of active dietitians, 1999*

Country	Number	Percentage
New Zealand	216	90.4
United Kingdom	5	2.1
Netherlands	3	1.3
South Africa	3	1.3
USA	3	1.3
Australia	1	0.4
Sweden	1	0.4
Not reported	7	2.9
Total	239	100.0

Table 35: *Geographic distribution of active dietitians by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	182.0	4.6	3.2
Auckland	1890.5	47.3	4.1
Waikato	528.0	13.2	3.7
Bay of Plenty	184.0	4.6	1.9
Tairawhiti	80.0	2.0	4.3
Hawke's Bay	200.0	5.0	3.4
Taranaki	165.5	4.1	3.8
Manawatu-Wanganui	289.0	7.2	3.4
Wellington	647.5	16.2	3.8
Nelson-Marlborough	204.0	5.1	4.3
West Coast	75.0	1.9	5.7
Canterbury	1482.5	37.1	7.7
Otago	469.0	11.7	6.7
Southland	211.0	5.3	4.7
Not reported	96.0	2.4	-
Total	6704.0	167.6	4.5

Table 36 shows the number of FTE dietitians in each type of work. Clinical inpatients and clinical outpatients accounted for 24.3 percent and 19.7 percent respectively of all work undertaken. On average, dietitians reported that they worked approximately 28.1 hours per week.

Table 36: *Work type of active dietitians at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
Clinical inpatients	1631.0	40.8	24.3
Clinical outpatients	1321.5	33.0	19.7
Health promotion	766.0	19.2	11.4
Food service management	679.0	17.0	10.1
General management	407.5	10.2	6.1
Consultancy/advisory	344.5	8.6	5.1
Teaching	338.5	8.5	5.0
Community/district/domiciliary	333.0	8.3	5.0
Study/research	253.5	6.3	3.8
Administration	219.0	5.5	3.3
Sports nutrition	100.5	2.5	1.5
Other	310.0	7.8	4.6
Total	6704.0	167.6	100.0

Medical laboratory technologists

There were 1267 medical laboratory technologists who purchased Annual Licences (AL) between March and August 1999. A health workforce survey was included with each invoice sent in February 1999.

These statistics are based on the 660 active (working) medical laboratory technologists who responded to the health workforce survey. This represents 52.1 percent of the 1999 licence holders. A further 4.0 percent responded to the 1999 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 (43.9 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 29.6 percent from 978 to 1267 over the last 10 years.

Table 37: *Number of Annual Licences purchased by medical laboratory technologists, 1990/91–1999/2000*

Year	Number of ALs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	978	856	87.5
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

** see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

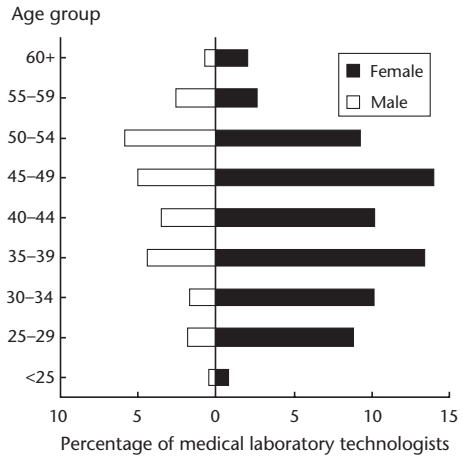
In 1999 the active medical laboratory technology workforce was predominantly female (71.7 percent), as shown in Table 38 and Figure 9.

Table 38: *Age and sex distribution of active medical laboratory technologists, 1999.*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	3	12	11	29	23	36	39	17	5	1	176
Female	5	58	67	88	67	92	61	17	13	5	473
Not reported	0	1	0	1	0	3	2	0	0	4	11
Total	8	71	78	118	90	131	102	34	18	10	660

Figure 9:
Age and sex distribution of active medical laboratory technologists, 1999

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



Ethnicity

Table 39 shows prioritised ethnicity (refer to ethnicity notes, Appendix 1, page 82). The majority (86.7 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, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	572	86.7
Other European	32	4.8
Chinese	11	1.7
Indian	10	1.5
New Zealand Māori	6	0.9
Pacific Island	6	0.9
Other Asian	3	0.5
South East Asian	2	0.3
Other	12	1.8
Not reported	6	0.9
Total	660	100.0

Employment setting

Table 40 shows the breakdown of males and females in each main employment setting. Figure 10 shows that the majority (59.1 percent) of medical laboratory technologists worked for CHEs (Crown health enterprises; see page 90) in their main employment setting. Working in a private practice (group practice) was the second most common reported main employment setting (29.7 percent).

Table 40: *Main employment setting of active medical laboratory technologists, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	92	291	7	390	59.1
Private practice (self-employed)	5	7	0	12	1.8
Private practice (group practice)	57	137	2	196	29.7
University / polytechnic	2	6	1	9	1.4
Government dept / Crown agency	1	2	0	3	0.5
Commercial/industrial organisation	8	6	0	14	2.1
Other	5	4	1	10	1.5
Not reported	6	20	0	26	3.9
Total	176	473	11	660	100.0

Figure 10:
Main employment setting of active medical laboratory technologists, 1999

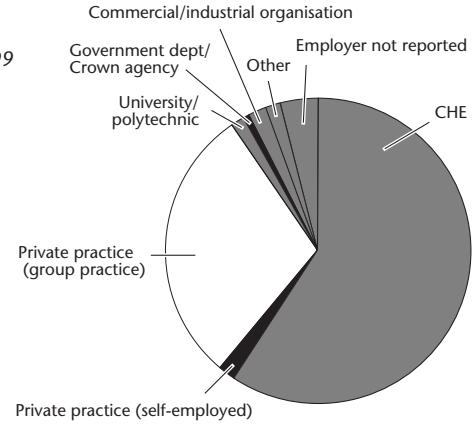


Table 41: *Work type of active medical laboratory technologists in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Microbiology	48	152	2	202	21.5
Haematology	45	120	1	166	17.7
Clinical biochemistry	46	109	2	157	16.7
Transfusion science	24	72	1	97	10.3
Management	48	43	3	94	10.0
Immunology	12	20	2	34	3.6
General medical laboratory technology	9	22	0	31	3.3
Histology	6	24	0	30	3.2
Cytology	7	21	0	28	3.0
Serology	7	7	2	16	1.7
Teaching	1	13	0	14	1.5
Virology	2	10	0	12	1.3
Study/research	2	8	0	10	1.1
Cytogenetics	0	9	0	9	1.0
Nuclear medicine	0	1	0	1	0.1
Other	12	17	2	31	3.3
Not reported	3	4	0	7	0.7
Total	272	652	15	939	100.0

Work type

Microbiology was reported as the work type for 21.5 percent of respondents when working in their main employment setting (see Table 41). Haematology was the second most frequently reported work type, at 17.7 percent.

Table 42 (page 42) shows the main employment setting by work type of the 660 active medical laboratory technologists who responded to the 1999 survey. Each medical laboratory technologists could specify more than one work type, and these tables show that many medical laboratory technologists worked in more than one field within their main employment setting.

Country of qualification

Table 43 (page 43) shows that the majority (92.1 percent) of active medical laboratory technologists who responded to the survey in 1999 were trained in New Zealand. Most overseas graduates gained their qualifications in the United Kingdom (2.3 percent).

Hours worked

Table 44 (page 43) shows the number of full-time equivalent (FTE) medical laboratory technologists in each geographic region based on the distribution of the 660 medical laboratory technologists who responded to the survey. On average in New Zealand there were 15.2 FTE medical laboratory technologists per 100 000 population. In 1999 Canterbury and Otago reported the highest ratio per capita, while Southland and West Coast reported the lowest ratios.

Table 45 (page 44) shows the number of FTE medical laboratory technologists in each type of work across their main employment setting. Microbiology accounted for 24.7 percent of all work undertaken, followed by haematology (18.5 percent). On average, medical laboratory technologists reported that they worked 34.8 hours per week.

Table 42: *Work type by main employment setting of active medical laboratory technologists, 1999*

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	97	100	113	79	18	17	8	11	6	1	10	22	9	2	49	14	4	560
Private practice (self-employed)	3	2	2	1	0	0	0	0	2	0	0	0	0	0	3	2	0	15
Private practice (group practice)	42	55	69	5	11	9	16	0	0	0	4	7	3	0	31	8	0	260
University / polytechnic	0	0	1	1	1	3	0	0	1	0	1	0	0	4	2	0	0	14
Government dept / Crown agency	0	0	1	1	0	0	0	1	0	0	1	0	0	1	0	0	0	5
Commercial/industrial organisation	4	3	4	2	2	0	0	0	0	0	0	2	0	1	4	2	2	26
Other	3	1	3	3	1	0	1	0	0	0	0	0	1	1	2	3	0	19
Not reported	8	5	9	5	1	1	3	0	0	0	0	0	1	1	3	2	1	40
Total	157	166	202	97	34	30	28	12	9	1	16	31	14	10	94	31	7	939

Table 43: *Country of qualification of active medical laboratory technologists, 1999*

Country	Number	Percentage
New Zealand	608	92.1
United Kingdom	15	2.3
South Africa	6	0.9
Canada	3	0.5
Zimbabwe	3	0.5
Australia	2	0.3
Other	10	1.5
Not reported	13	2.0
Total	660	100.0

Table 44: *Geographic distribution of active medical laboratory technologists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	754.0	18.9	13.3
Auckland	6932.8	173.3	15.0
Waikato	2020.0	50.5	14.0
Bay of Plenty	1464.0	36.6	15.4
Tairawhiti	340.5	8.5	18.2
Hawke's Bay	803.0	20.1	13.7
Taranaki	403.0	10.1	9.3
Manawatu-Wanganui	1199.0	30.0	13.9
Wellington	2733.5	68.3	16.0
Nelson-Marlborough	594.0	14.9	12.4
West Coast	90.0	2.3	6.8
Canterbury	3918.0	98.0	20.3
Otago	1400.5	35.0	20.0
Southland	287.0	7.2	6.4
Total	22 939.3	573.5	15.2

Table 45: *Work type of active medical laboratory technologists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
Microbiology	5655.0	141.4	24.7
Haematology	4250.8	106.3	18.5
Clinical biochemistry	3877.0	96.9	16.9
Transfusion science	2221.5	55.5	9.7
Management	2077.5	51.9	9.1
Histology	990.5	24.8	4.3
Immunology	921.0	23.0	4.0
Cytology	861.5	21.5	3.8
General medical laboratory technology	455.0	11.4	2.0
Cytogenetics	310.0	7.8	1.4
Virology	269.0	6.7	1.2
Serology	222.0	5.6	1.0
Study/research	109.5	2.7	0.5
Nuclear medicine	40.0	1.0	0.2
Teaching	37.5	0.9	0.2
Other	641.5	16.0	2.8
Total	22 939.3	573.5	100.0

Medical radiation technologists

There were 1402 medical radiation technologists who purchased Annual Licences (ALs) between March and August 1999. A health workforce survey was included with each invoice sent in February 1999.

These statistics are based on the 794 active (working) medical radiation technologists who responded to the health workforce survey. This represents 56.6 percent of the 1999 licence holders. A further 4.5 percent responded to the 1999 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 (38.9 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 41.8 percent from 989 to 1402 over the last 10 years.

Table 46: *Number of Annual Licences purchased by medical radiation technologists, 1990/91–1999/2000*

Year	Number of ALs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	989	876	88.6
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

** see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

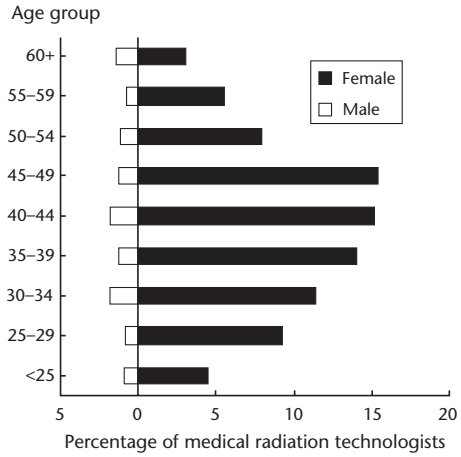
The active medical radiation technologist workforce was predominantly female (87.3 percent), as illustrated by Table 47 and Figure 11.

Table 47: *Age and sex distribution of active medical radiation technologists, 1999*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	7	6	14	10	14	10	9	6	11	2	89
Female	36	74	91	111	120	122	63	44	24	8	693
Not reported	0	0	2	1	3	1	0	0	0	5	12
Total	43	80	107	122	137	133	72	50	35	15	794

Figure 11:
Age and sex distribution of active medical radiation technologists, 1999

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



Ethnicity

Table 48 shows prioritised ethnicity of active medical radiation technologists (refer to ethnicity notes, Appendix 1, page 82). As in previous years the majority (81.7 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 laboratory technologists, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	649	81.7
Other European	78	9.8
New Zealand Māori	13	1.6
Chinese	9	1.1
Pacific Island	7	0.9
Indian	4	0.5
South East Asian	1	0.1
Other	11	1.4
Not reported	22	2.8
Total	794	100.0

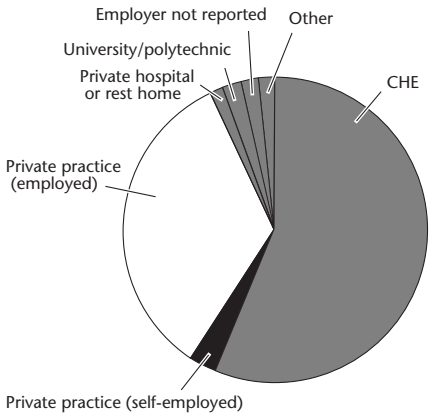
Employment setting

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 (Crown health enterprises; see page 90) (56.2 percent) or in private practice (employed) (34.1 percent).

Table 49: *Main employment setting of active medical radiation technologists, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	67	374	5	446	56.2
Private practice (employed)	14	252	5	271	34.1
Private practice (self-employed)	6	17	0	23	2.9
University / polytechnic	1	16	1	18	2.3
Private hospital or rest home	0	9	1	10	1.3
Government dept / Crown agency	0	2	0	2	0.3
Other	1	8	0	9	1.1
Not reported	0	15	0	15	1.9
Total	89	693	12	794	100.0

Figure 12:
Main employment setting of active medical radiation technologists, 1999



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 (52.0 percent). Diagnostic ultrasound (8.1 percent) and computerised tomography (7.9 percent) were the next most significant work types.

Table 50: *Work type of active medical radiation technologists in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Diagnostic radiography	52	485	5	542	52.0
Diagnostic ultrasound	8	73	4	85	8.1
Computerised tomography	9	73	0	82	7.9
Radiotherapy	11	57	2	70	6.7
Breast screening	0	62	0	62	5.9
Management	14	44	4	62	5.9
Magnetic resonance imaging	3	25	0	28	2.7
Teaching	3	24	0	27	2.6
Radionuclide imaging	7	13	0	20	1.9
Study/research	2	13	0	15	1.4
Other	7	28	0	35	3.4
Not reported	0	15	0	15	1.4
Total	116	912	15	1043	100.0

Table 51 shows the main employment setting by work type of the 794 active medical radiation technologists who responded to the 1999 survey. Each medical radiation technologist could specify more than one work type, and these tables show that many medical radiation technologists worked in more than one field within their main employment setting.

Table 51: *Work type by main employment setting of active medical radiation technologists, 1999*

Employment setting by work type	Diagnostic radiography	Radiotherapy	Diagnostic ultrasound	Computerised tomography	Radionuclide imaging	Magnetic resonance imaging	Breast screening	Teaching	Study/research	Management	Other	Not reported	Total
CHE	283	67	48	60	16	8	14	9	5	35	19	8	572
Private practice (self-employed)	15	1	6	2	0	0	2	0	0	5	0	1	32
Private practice (employed)	217	1	30	18	4	18	41	3	3	15	10	6	366
Private hospital or rest home	7	0	0	1	0	1	0	0	0	2	1	0	12
University / polytechnic	5	0	0	0	0	0	0	13	6	4	0	0	28
Government dept / Crown agency	1	0	0	0	0	0	1	1	1	0	0	0	4
Other	2	0	0	0	0	0	3	0	0	1	5	0	11
Not reported	12	1	1	1	0	1	1	1	0	0	0	0	18
Total	542	70	85	82	20	28	62	27	15	62	35	15	1043

Country of qualification

New Zealand was the country of qualification for 81.2 percent of medical radiation technologists (see Table 52, page 50). Medical radiation technologists who qualified in the United Kingdom accounted for 9.9 percent of those surveyed, and Australia ranked third with 3.0 percent.

Table 52: *Country of qualification of active medical radiation technologists, 1999*

Country	Number	Percentage
New Zealand	645	81.2
United Kingdom	79	9.9
Australia	24	3.0
South Africa	20	2.5
USA	4	0.5
Canada	3	0.4
Other	6	0.8
Not reported	13	1.6
Total	794	100.0

Table 53: *Geographic distribution of active medical radiation technologists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	736.0	18.4	13.0
Auckland	8130.8	203.3	17.6
Waikato	2348.0	58.7	16.2
Bay of Plenty	1334.0	33.4	14.1
Tairawhiti	110.0	2.8	5.9
Hawke's Bay	666.0	16.7	11.3
Taranaki	536.5	13.4	12.4
Manawatu-Wanganui	1520.5	38.0	17.6
Wellington	1792.5	44.8	10.5
Nelson-Marlborough	440.0	11.0	9.2
West Coast	123.0	3.1	9.3
Canterbury	3554.0	88.9	18.4
Otago	1699.0	42.5	24.2
Southland	481.5	12.0	10.7
Not reported	79.0	2.0	-
Total	23 550.8	588.8	15.7

Hours worked

Table 53 shows the number of full-time equivalent (FTE) medical radiation technologists by geographic region. The highest concentration appeared in Otago and Canterbury (FTE 24.2 and 18.4 respectively per 100 000 population) and the lowest was in Tairawhiti (FTE 5.9 per 100 000 population). On average there were 15.7 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 across their main employment setting. Diagnostic radiography accounted for 54.5 percent of all work undertaken. On average, medical radiation technologists reported that they worked approximately 29.7 hours per week.

Table 54: *Work type of active medical radiation technologists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
Diagnostic radiography	12 839.8	321.0	54.5
Radiotherapy	2572.5	64.3	10.9
Diagnostic ultrasound	2445.0	61.1	10.4
Computerised tomography	1424.5	35.6	6.0
Management	932.5	23.3	4.0
Breast screening	874.5	21.9	3.7
Magnetic resonance imaging	617.0	15.4	2.6
Radionuclide imaging	593.0	14.8	2.5
Teaching	461.5	11.5	2.0
Study/research	162.0	4.1	0.7
Other	606.0	15.2	2.6
Work type not reported	22.5	0.6	0.1
Total	23 550.8	588.8	100.0

Occupational therapists

There were 1274 occupational therapists that purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 766 active (working) occupational therapists who responded to the health workforce survey. This represents 60.1 percent of the 1999 APC holders. A further 6.4 percent responded to the 1999 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 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 63.1 percent from 781 to 1274 over the last 10 years.

Table 55: *Number of Annual Practising Certificates purchased by occupational therapists, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	781	632	80.9
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

* *see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

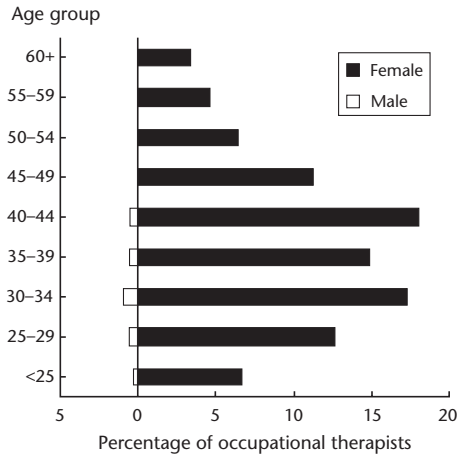
The active occupational therapy workforce was predominantly female (96.1 percent), as shown in Table 56 and Figure 13.

Table 56: *Age and sex distribution of active occupational therapists, 1999.*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	2	4	7	4	4	0	0	0	1	0	22
Female	51	97	132	114	138	86	49	35	26	8	736
Not reported	0	0	1	2	0	0	2	0	1	2	8
Total	53	101	140	120	142	86	51	35	28	10	766

Figure 13:
Age and sex distribution of active occupational therapists, 1999

(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 82). The majority (83.0 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, 1999

Ethnic group	Number	Percentage
New Zealand European/Pākehā	636	83.0
Other European	77	10.1
New Zealand Māori	17	2.2
Chinese	4	0.5
Pacific Island	2	0.3
Indian	2	0.3
South East Asian	1	0.1
Other	25	3.3
Not reported	2	0.3
Total	766	100.0

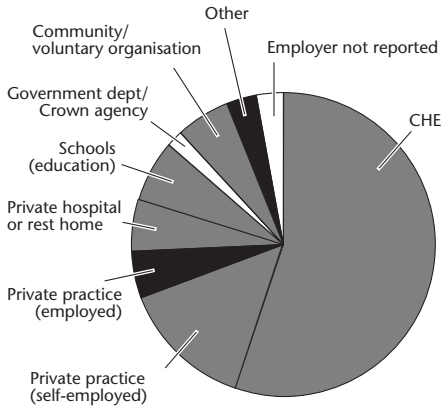
Employment setting

Table 58 shows the breakdown of males and females in each main employment setting for active occupational therapists. Figure 14 shows that the majority (55.5 percent) worked for CHEs (Crown health enterprises; see page 90) in their main employment setting.

Table 58: Main employment setting of active occupational therapists, by sex, 1999

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	10	412	3	425	55.5
Private practice (self-employed)	2	100	2	104	13.6
Private practice (employed)	2	39	0	41	5.4
Private hospital or rest home	0	41	2	43	5.6
Schools (education)	2	44	0	46	6.0
Government dept / Crown agency	0	19	1	20	2.6
Community/voluntary organisation	4	33	0	37	4.8
Other	2	32	0	34	4.4
Not reported	0	16	0	16	2.1
Total	22	736	8	766	100.0

Figure 14:
Main employment setting of active occupational therapists, 1999



Work type

Table 59 (page 56) shows the proportion of occupational therapists working in each work type classification, within their main employment setting. Rehabilitation (18.2 percent) and community/domiciliary (14.2 percent) were the most reported work types.

Table 60 (page 57) shows the main employment setting by work type of the 766 active occupational therapists who responded to the 1999 survey. Each occupational therapist could specify more than one work type, and these tables show that many occupational therapists worked in more than one field within their main employment setting.

Country of qualification

Table 61 (page 58) shows where occupational therapists received their qualifications. Most occupational therapists practising in New Zealand also qualified here (87.1 percent).

Hours worked

Table 62 (page 58) shows the number of full-time equivalent (FTE) occupational therapists in each geographic region, based on the distrib-

Table 59: *Work type of active occupational therapists in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Rehabilitation	9	186	6	201	18.2
Community/domiciliary	6	149	2	157	14.2
Paediatric	2	121	1	124	11.2
Management	2	104	3	109	9.9
Geriatric	2	75	2	79	7.1
Continuing care (psychiatric)	0	67	0	67	6.1
Medical/surgical	0	65	1	66	6.0
Acute psychiatry	0	37	0	37	3.3
Teaching	3	27	0	30	2.7
Intellectual handicap	3	26	0	29	2.6
Study/research	1	24	0	25	2.3
Continuing care (non-psychiatric)	1	20	1	22	2.0
Adolescent	0	18	0	18	1.6
Acute/intensive care	0	9	0	9	0.8
Other	4	115	0	119	10.8
Not reported	0	13	0	13	1.2
Total	33	1056	16	1105	100.0

ution of 766 active occupational therapists that responded to the survey. On average in New Zealand, there were 15.7 FTE occupational therapists per 100 000 population. In 1999 Taranaki and Hawke's Bay reported fewer occupational therapists than the national average, whereas in Otago a higher ratio per capita was reported.

Table 63 (page 59) shows the number of FTE occupational therapists in each type of work. Rehabilitation (20.5 percent) and community/domiciliary (14.7 percent) were the areas where the most time was spent. On average, occupational therapists reported that they worked 30.9 hours per week.

Table 60: *Work type by main employment setting of active occupational therapists, 1999*

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	97	60	60	1	31	1	33	53	113	8	9	2	6	51	48	7	580
Private practice (self-employed)	56	4	17	3	12	6	0	0	25	1	2	3	8	21	32	1	191
Private practice (employed)	22	0	4	1	2	2	1	2	6	0	1	0	0	6	10	1	58
Private hospital or rest home	8	0	0	0	25	8	1	5	2	0	1	3	0	10	4	1	68
Schools (education)	0	0	26	10	1	0	0	0	0	0	6	7	3	2	3	0	58
Government dept / Crown agency	4	0	7	1	0	0	0	0	0	0	0	3	2	4	5	0	26
Community/voluntary organisation	5	1	7	1	2	3	0	3	3	0	7	1	1	8	6	1	49
Other	6	0	2	1	1	1	1	4	3	0	1	11	4	6	10	2	53
Not reported	3	1	1	0	5	1	1	0	5	0	2	0	1	1	1	0	22
Total	201	66	124	18	79	22	37	67	157	9	29	30	25	109	119	13	1105

Table 61: *Country of qualification of active occupational therapists, 1999*

Country	Number	Percentage
New Zealand	667	87.1
United Kingdom	53	6.9
South Africa	11	1.4
Australia	9	1.2
Canada	8	1.0
Germany	4	0.5
Netherlands	2	0.3
Denmark	2	0.3
Ireland	2	0.3
Hong Kong	1	0.1
India	1	0.1
Not reported	6	0.8
Total	766	100.0

Table 62: *Geographic distribution of active occupational therapists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	681.0	17.0	12.0
Auckland	7302.0	182.6	15.8
Waikato	2100.5	52.5	14.5
Bay of Plenty	1554.1	38.9	16.4
Tairawhiti	192.0	4.8	10.3
Hawke's Bay	519.0	13.0	8.8
Taranaki	348.0	8.7	8.1
Manawatu-Wanganui	1614.7	40.4	18.7
Wellington	2787.5	69.7	16.3
Nelson-Marlborough	660.0	16.5	13.8
West Coast	202.0	5.1	15.3
Canterbury	3618.3	90.5	18.8
Otago	1602.0	40.1	22.8
Southland	439.0	11.0	9.7
Not reported	56.0	1.4	-
Total	23 676.1	591.9	15.7

Table 63: *Work type of active occupational therapists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
Rehabilitation	4850.1	121.3	20.5
Community/domiciliary	3484.0	87.1	14.7
Paediatric	2904.2	72.6	12.3
Management	1918.5	48.0	8.1
Continuing care (psychiatric)	1764.6	44.1	7.5
Medical/surgical	1487.0	37.2	6.3
Geriatric	1377.0	34.4	5.8
Acute psychiatry	921.0	23.0	3.9
Intellectual handicap	701.1	17.5	3.0
Teaching	591.2	14.8	2.5
Adolescent	310.0	7.8	1.3
Continuing care (non-psychiatric)	297.0	7.4	1.3
Study/research	231.4	5.8	1.0
Acute/intensive care	132.0	3.3	0.6
Other	2707.0	67.7	11.4
Total	23 676.1	591.9	100.0

Podiatrists

There were 241 podiatrists who purchased Annual Licences (ALs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 140 active (working) podiatrists who responded to the health workforce survey. This represents 58.1 percent of the 1999 licence holders. A further 3.7 percent responded to the 1999 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 (38.2 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 41.8 percent from 170 to 241 over the last 10 years.

Table 64: *Number of Annual Licences purchased by podiatrists, 1990/91–1999/2000*

Year	Number of ALs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	170	133	78.2
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

* *see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

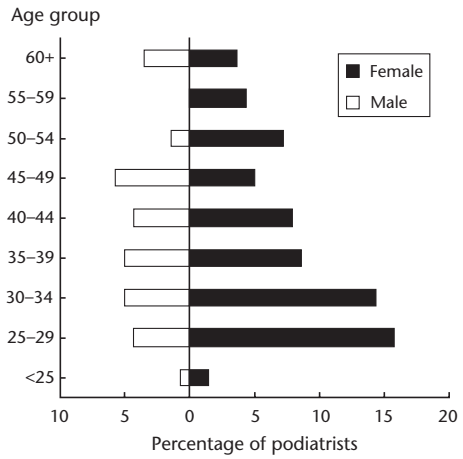
The active podiatry workforce was predominantly female (67.9 percent), as illustrated in Table 65 and Figure 15.

Table 65: *Age and sex distribution of active podiatrists, 1999.*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	1	6	7	7	6	8	2	0	5	2	44
Female	2	22	20	12	11	7	10	6	5	0	95
Not reported	0	0	0	0	0	1	0	0	0	0	1
Total	3	28	27	19	17	16	12	6	10	2	140

Figure 15:
Age and sex distribution of active podiatrists, 1999

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



Ethnicity

Table 66 (page 62) shows prioritised ethnicity of active podiatrists (refer to ethnicity notes, Appendix 1, page 82). The majority (85.7 percent) of the active podiatrists identified themselves as belonging to the New Zealand/ Pākehā ethnic group.

Table 66: *Prioritised ethnicity of active podiatrists, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	120	85.7
Other European	9	6.4
New Zealand Māori	3	2.1
Chinese	2	1.4
Other	2	1.4
Not reported	4	2.9
Total	140	100.0

Employment setting

Table 67 shows the breakdown of males and females in each main employment setting. Figure 16 shows that the majority (86.4 percent) of active podiatrists were self-employed in a private practice.

Table 67: *Main employment setting of active podiatrists, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE*	1	2	0	3	2.1
Private practice (self-employed)	40	80	1	121	86.4
Private practice (employed)	1	6	0	7	5.0
Private hospital or rest home	0	2	0	2	1.4
University / polytechnic	0	1	0	1	0.7
Orthotic laboratory representative	1	0	0	1	0.7
Other	1	0	0	1	0.7
Not reported	0	4	0	4	2.9
Total	44	95	1	140	100.0

* Crown health enterprise; see page 90.

Figure 16:
Main employment setting of active podiatrists, 1999

Work type

Table 68 shows the number of male and female podiatrists in each work type for 1999. It shows that general podiatry was reported as a work type for 42.9 percent of respondents when working in their main employment setting. Sports medicine (20.8 percent), diabetes podiatry (12.5 percent) and management (12.2 percent) were the next most common work types reported.

Table 68: *Work type of active podiatrists in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
General podiatry	41	92	1	134	42.9
Sports medicine	27	38	0	65	20.8
Diabetes podiatry	13	26	0	39	12.5
Management	14	24	0	38	12.2
Study/research	6	11	0	17	5.4
Teaching	3	4	0	7	2.2
Technical representative	0	4	0	4	1.3
Other	2	5	0	7	2.2
Not reported	0	1	0	1	0.3
Total	106	205	1	312	100.0

Table 69 shows the main employment setting by work type of the 140 active podiatrists who responded to the 1999 survey. Each podiatrist could specify more than one work type, and these tables show that many podiatrists worked in more than one field within their main employment setting.

Table 69: *Work type by main employment setting of active podiatrists, 1999*

Employment setting by work type	General podiatry	Sports medicine	Diabetes podiatry	Teaching	Study/research	Management	Technical representative	Other	Not reported	Total
CHE	2	0	3	0	0	1	0	0	0	6
Private practice (self-employed)	118	62	34	6	15	34	3	6	1	279
Private practice (employed)	7	1	1	0	1	0	1	0	0	11
Private hospital or rest home	2	0	0	0	0	1	0	0	0	3
University / polytechnic	0	0	0	1	1	1	0	0	0	3
Orthotic laboratory representative	0	0	0	0	0	0	0	1	0	1
Other	1	0	0	0	0	0	0	0	0	1
Not reported	4	2	1	0	0	1	0	0	0	8
Total	134	65	39	7	17	38	4	7	1	312

Country of qualification

Table 70 shows that the majority of podiatrists surveyed in 1999 qualified in New Zealand (88.6 percent).

Table 70: *Country of qualification of active podiatrists, 1999*

Country	Number	Percentage
New Zealand	124	88.6
United Kingdom	11	7.9
South Africa	2	1.4
Australia	1	0.7
USA	1	0.7
Not reported	1	0.7
Total	140	100.0

Hours worked

Table 71 shows the number of full-time equivalent (FTE) podiatrists by geographic region. It shows that on average there were 3.0 active podiatrists per 100 000 estimated population. Canterbury had the highest rate at 3.9 and Northland the lowest with a rate of 0.4 FTEs per 100 000 population.

Table 72 (page 66) shows the number of FTE podiatrists in each type of work. General podiatry accounted for 68.9 percent of all work types. On average, podiatrists reported that they worked in podiatry 32.3 hours per week.

Table 71: *Geographic distribution of active podiatrists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	24.5	0.6	0.4
Auckland	1394.5	34.9	3.0
Waikato	293.5	7.3	2.0
Bay of Plenty	282.0	7.1	3.0
Tairawhiti	72.0	1.8	3.8
Hawke's Bay	188.0	4.7	3.2
Taranaki	140.0	3.5	3.2
Manawatu-Wanganui	313.0	7.8	3.6
Wellington	641.0	16.0	3.8
Nelson-Marlborough	145.0	3.6	3.0
West Coast	30.0	0.8	2.3
Canterbury	743.0	18.6	3.9
Otago	114.0	2.9	1.6
Southland	98.0	2.5	2.2
Not reported	40.0	1.0	-
Total	4518.5	113.0	3.0

Table 72: *Work type of active podiatrists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
General podiatry	3115.5	77.9	68.9
Sports medicine	769.0	19.2	17.0
Diabetes podiatry	253.0	6.3	5.6
Management	151.5	3.8	3.4
Study/research	69.0	1.7	1.5
Teaching	41.5	1.0	0.9
Technical representative	4.0	0.1	0.1
Other	115.0	2.9	2.5
Total	4518.5	113.0	100.0

Physiotherapists

There were 2444 physiotherapists who purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent in February 1999.

These statistics are based on the 1475 active (working) physiotherapists who responded to the health workforce survey. This represents 60.4 percent of 1999 APC holders. A further 5.7 percent responded to the 1999 survey but did not report that they were active. It is not known if the APC holders who did not respond to the survey (34.0 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 37.5 percent to 2444 over the last 10 years.

Table 73: *Number of Annual Practising Certificates purchased by physiotherapists, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	1777	1531	86.2
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

** see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

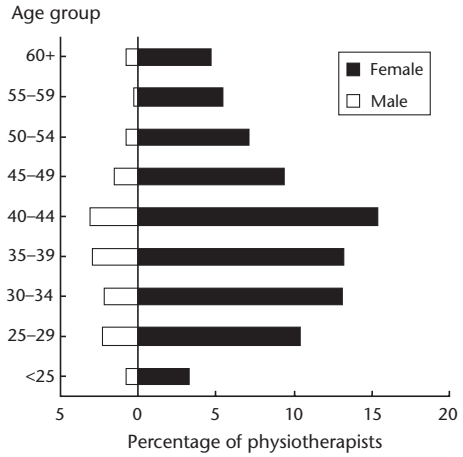
The active physiotherapy workforce was predominantly female (83.3 percent), as illustrated in Table 74 and Figure 17.

Table 74: *Age and sex distribution of active physiotherapists, 1999.*

Sex	Age groups									Not reported	Total
	<25	25–	30–	35–	40–	45–	50–	55–	60+		
Male	12	34	33	44	46	23	12	4	12	7	227
Female	48	154	194	196	228	139	105	81	70	13	1228
Not reported	0	2	1	1	3	1	4	1	0	7	20
Total	60	190	228	241	277	163	121	86	82	27	1475

Figure 17:
Age and sex distribution of active physiotherapists, 1999

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



Ethnicity

Table 75 shows the prioritised ethnicity of active physiotherapists (refer to ethnicity notes, Appendix 1, page 82). The majority (77.1 percent) of the active physiotherapists identified themselves as belonging to the New Zealand/Pākehā ethnic group.

Table 75: Prioritised ethnicity of active physiotherapists, 1999

Ethnic group	Number	Percentage
New Zealand European/Pākehā	1137	77.1
Other European	197	13.4
New Zealand Māori	37	2.5
Chinese	21	1.4
Pacific Island	13	0.9
Indian	6	0.4
South East Asian	5	0.3
Other	42	2.8
Not reported	17	1.2
Total	1475	100.0

Employment setting

Table 76 shows the main employment setting of both male and female physiotherapists. Figure 18 shows that the majority (40.3 percent) of active physiotherapists were self-employed in private practice. A further 29.5 percent worked for a CHE (Crown health enterprise; see page 90).

Table 76: Main employment setting of active physiotherapists, by sex, 1999

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE	24	406	5	435	29.5
Private practice (self-employed)	152	436	6	594	40.3
Private practice (employed)	33	174	3	210	14.2
Private hospital or rest home	2	66	3	71	4.8
University / polytechnic	5	34	2	41	2.8
Schools (Education Service)	3	37	0	40	2.7
Government dept / Crown agency	0	11	0	11	0.7
Commercial/industrial organisation	1	6	0	7	0.5
Voluntary agency	1	6	0	7	0.5
Other	3	30	0	33	2.2
Not reported	3	22	1	26	1.8
Total	227	1228	20	1475	100.0

Figure 18:
Main employment setting of active physiotherapists, 1999

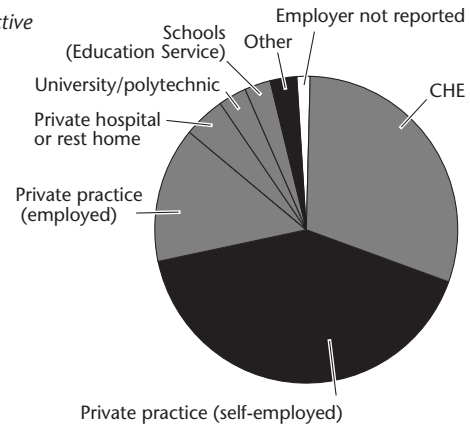


Table 77: *Work type of active physiotherapists in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Musculoskeletal outpatient	164	574	10	748	24.1
Sports physiotherapy	124	348	3	475	15.3
Management	66	240	4	310	10.0
Care of elderly	14	196	6	216	7.0
Adult neurology	7	140	6	153	4.9
Community domiciliary	8	140	3	151	4.9
Musculoskeletal inpatient	32	111	2	145	4.7
Study/research	29	95	0	124	4.0
Occupational health	21	98	1	120	3.9
Paediatric neurology	5	103	2	110	3.5
Med/surg cardiorespiratory	5	96	1	102	3.3
Teaching	19	78	2	99	3.2
Women's health/obstetrics	1	94	0	95	3.1
Other paediatric	3	56	0	59	1.9
Special Education Service	2	24	0	26	0.8
Mental health	1	23	1	25	0.8
Continuing care	0	14	0	14	0.5
Other	10	98	0	108	3.5
Not reported	3	23	1	27	0.9
Total	514	2551	42	3107	100.0

Work type

Table 77 shows the number of male and female physiotherapists in each type of work. Musculoskeletal outpatient was reported as the principal work type for 24.1 percent of respondents when working in their main employment setting. Sports physiotherapy was the second most frequently reported work type, at 15.3 percent.

Table 78 (page 72) shows the main employment setting by work type of the 1475 physiotherapists who responded to the survey. Those respondents self-employed in private practice worked principally in the fields of musculoskeletal outpatient and sports physiotherapy. Those employed by CHEs were principally working in musculoskeletal outpatient but also tended to work across a much wider variety of fields.

Each physiotherapist could specify more than one work type, and these tables show that many physiotherapists worked in more than one field within their main employment setting.

Country of qualification

Table 79 (page 73) shows where physiotherapists received their qualifications. Most physiotherapists practising in New Zealand have also trained here (79.5 percent).

Hours worked

Table 80 (page 73) shows the number of full-time equivalent (FTE) physiotherapists in each geographic region. There was a national average of 29.7 physiotherapists per 100 000 population. Taranaki and Southland had fewer reported physiotherapists than the national average, while Otago and the Bay of Plenty had a higher ratio.

Table 81 (page 74) 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 by main employment setting of active physiotherapists, 1999*

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	Special Education Service	Women's health/ obstetrics	Continuing care	Occupational health	Teaching	Study/research	Management	Other	Not reported	Total
CHE	60	113	5	74	18	55	89	33	72	71	2	54	4	9	20	9	69	42	10	809
Private practice (self-employed)	57	441	345	58	4	17	37	11	15	61	6	29	6	86	38	87	209	34	11	1552
Private practice (employed)	11	161	114	13	2	5	8	4	5	6	2	10	1	18	1	8	9	7	4	389
Private hospital or rest home	9	3	0	60	1	1	5	0	6	4	0	0	3	0	6	1	4	4	0	107
University/polytechnic	1	10	3	2	0	1	3	0	2	0	0	0	0	2	26	14	6	3	0	73
Schools (Education Service)	0	0	0	0	0	25	3	7	0	0	14	0	0	0	2	0	2	1	0	54
Government dept / Crown agency	1	0	0	0	0	2	0	0	0	1	2	0	0	0	0	1	2	1	1	11
Commercial/industrial organisation	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	1	2	2	0	9
Voluntary agency	1	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1	10
Other	3	5	1	3	0	4	6	4	1	1	0	1	0	1	0	1	2	11	0	44
Not reported	2	11	7	6	0	0	2	0	1	4	0	1	0	1	6	2	5	1	0	49
Total	145	748	475	216	25	110	153	59	102	151	26	95	14	120	99	124	310	108	27	3107

Table 79: *Country of qualification of active physiotherapists, 1999*

Country	Number	Percentage
New Zealand	1173	79.5
United Kingdom	163	11.1
Netherlands	34	2.3
Australia	33	2.2
South Africa	22	1.5
Canada	14	0.9
USA	10	0.7
Germany	4	0.3
Switzerland	3	0.2
Other	5	0.3
Not reported	14	0.9
Total	1475	100.0

Table 80: *Geographic distribution of active physiotherapists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	1556.2	38.9	27.5
Auckland	13 532.4	338.3	29.4
Waikato	3625.0	90.6	25.1
Bay of Plenty	3359.5	84.0	35.4
Tairawhiti	429.0	10.7	22.9
Hawke's Bay	1784.5	44.6	30.3
Taranaki	732.5	18.3	17.0
Manawatu-Wanganui	2601.0	65.0	30.2
Wellington	4520.5	113.0	26.5
Nelson-Marlborough	1449.5	36.2	30.2
West Coast	376.0	9.4	28.5
Canterbury	6303.8	157.6	32.7
Otago	3097.5	77.4	44.1
Southland	940.5	23.5	20.9
Not reported	358.0	9.0	-
Total	44 665.9	1116.6	29.7

Table 81: *Work type of active physiotherapists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
Musculoskeletal outpatient	16 780.9	419.5	37.6
Sports physiotherapy	5708.5	142.7	12.8
Musculoskeletal inpatient	2849.0	71.2	6.4
Care of elderly	2698.7	67.5	6.0
Management	2627.5	65.7	5.9
Community/domiciliary	2094.5	52.4	4.7
Adult neurology	2058.9	51.5	4.6
Paediatric neurology	1917.0	47.9	4.3
Med/surg cardiorespiratory	1587.5	39.7	3.6
Occupational health	1078.9	27.0	2.4
Study/research	874.8	21.9	2.0
Teaching	823.0	20.6	1.8
Women's health/obstetrics	649.0	16.2	1.5
Other paediatric	562.0	14.1	1.3
Special Education Services	374.5	9.4	0.8
Mental health	303.0	7.6	0.7
Continuing care	56.5	1.4	0.1
Other	1611.8	40.3	3.6
Not reported	10.0	0.3	-
Total	44 665.9	1116.6	100.0

Registered psychologists

There were 1042 registered psychologists who purchased Annual Practising Certificates (APCs) between March and August 1999. A health workforce survey was included with each invoice sent out in February 1999.

These statistics are based on the 598 active (working) registered psychologists who responded to the health workforce survey. This represents 57.4 percent of the 1999 APC holders. A further 2.3 percent responded to the 1999 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 (40.3 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 35.7 percent from 768 to 1042 over the last 10 years.

Table 82: *Number of Annual Practising Certificates purchased by registered psychologists, 1990/91–1999/2000*

Year	Number of APCs purchased	Completed surveys from respondents who were active	Response rate (percentage)
1990/91	768	552	71.9
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

** see the note on 1992 data in Appendix 6 (page 90).*

Demographic data

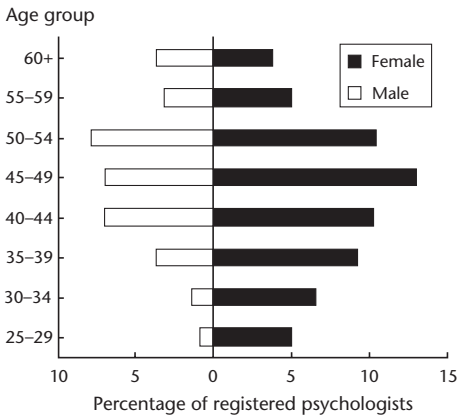
The active registered psychologist workforce was predominantly female (64.0) percent, as depicted in Table 83 and Figure 19.

Table 83: *Age and sex distribution of active registered psychologists, 1999.*

Sex	Age groups								Not reported	Total
	25–	30–	35–	40–	45–	50–	55–	60+		
Male	5	8	22	42	42	47	19	22	3	210
Female	30	39	55	61	77	62	29	22	8	383
Not reported	0	0	0	0	0	2	1	1	1	5
Total	35	47	77	103	119	111	49	45	12	598

Figure 19:
Age and sex distribution of active registered psychologists, 1999

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



Ethnicity

Table 84 shows prioritised ethnicity of active registered psychologists (refer to ethnicity notes, Appendix 1, page 82). The majority (78.6 percent) of the active registered psychologists identified themselves as belonging to the New Zealand/Pākehā ethnic group. This has been a consistent feature of this profession over previous years.

Table 84: *Prioritised ethnicity of active registered psychologists, 1999*

Ethnic group	Number	Percentage
New Zealand European/Pākehā	470	78.6
Other European	73	12.2
New Zealand Māori	21	3.5
Chinese	6	1.0
Indian	3	0.5
South East Asian	2	0.3
Other Asian	2	0.3
Other	16	2.7
Not reported	5	0.8
Total	598	100.0

Employment setting

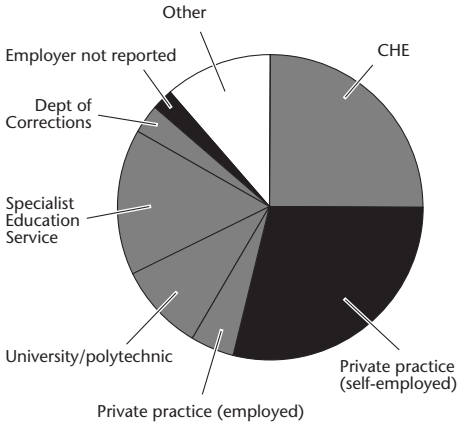
Table 85 shows the breakdown of males and females in the main employment settings. The largest employment setting of registered psychologists was self-employed in private practice. This made up 28.6 percent of the workforce (see Figure 20, page 78).

Table 85: *Main employment setting of active registered psychologists, by sex, 1999*

Employment setting	Male	Female	Not reported	Total	
				Number	Percentage
CHE*	43	106	0	149	24.9
Private practice (self-employed)	63	106	2	171	28.6
Private practice (employed)	12	18	0	30	5.0
University / polytechnic	21	34	0	55	9.2
Specialist Education Services	30	61	2	93	15.6
Children & Young Persons Service	3	11	0	14	2.3
Department of Corrections	10	10	0	20	3.3
Other government departments	6	8	0	14	2.3
Commercial/industrial organisation	6	7	0	13	2.2
Voluntary agency	8	4	0	12	2.0
Consultant to public sector employer	1	1	0	2	0.3
Other	3	9	1	13	2.2
Not reported	4	8	0	12	2.0
Total	210	383	5	598	100.0

* Crown health enterprise; see page 90.

Figure 20:
Main employment setting of active registered psychologists, 1999



Work type

Table 86 shows the number of male and female psychologists in each work type for 1999. Clinical psychology was reported as the work type for 27.9 percent of respondents when working in their main employment setting.

Table 86: *Work type of active registered psychologists in main employment setting, by sex, 1999*

Work type	Male	Female	Not reported	Total	
				Number	Percentage
Clinical psychology	100	212	1	313	27.9
Educational psychology	42	74	2	118	10.5
Counselling	45	63	1	109	9.7
Teaching	36	54	2	92	8.2
Service management	39	52	0	91	8.1
Psychotherapy	35	50	1	86	7.7
Research	29	49	1	79	7.0
Industrial/organisational	33	31	0	64	5.7
Study	16	23	0	39	3.5
Personnel management	9	20	0	29	2.6
Rehabilitation	11	18	0	29	2.6
Other	27	38	2	67	6.0
Not reported	3	3	0	6	0.5
Total	425	687	10	1122	100.0

Table 87 shows the main employment setting by work type of the 598 active registered psychologists who responded to the 1999 survey. Each registered psychologist could specify more than one work type, and these tables show that many registered psychologists reported working in more than one field within their main employment setting.

Table 87: *Work type by main employment setting of active registered psychologists, 1999*

Employment setting by work type	Clinical psychology	Educational psychology	Industrial/organisational	Personnel management	Rehabilitation	Psychotherapy	Counselling	Teaching	Study	Research	Service management	Other	Not reported	Total
CHE	138	1	1	3	6	14	9	14	5	12	20	16	0	239
Private practice (self-employed)	98	19	29	4	15	52	55	19	17	13	13	29	3	366
Private practice (employed)	14	0	9	2	3	5	4	4	2	2	3	5	1	54
University / polytechnic	14	2	2	0	0	3	6	35	5	32	7	4	1	111
Specialist Education Services	9	81	0	4	2	1	13	5	3	6	19	3	1	147
Children & Young Persons Service	14	1	0	3	0	1	2	1	0	1	7	0	0	30
Dept of Corrections	16	0	0	1	1	2	1	1	1	2	8	1	0	34
Other government departments	1	3	8	5	0	0	4	5	2	7	4	3	0	42
Commercial/industrial organisation	0	0	10	3	0	0	1	1	0	0	2	0	0	17
Voluntary agency	5	2	1	1	1	4	7	3	1	3	7	3	0	38
Consultant to public sector employer	0	0	0	0	1	1	0	0	0	0	0	0	0	2
Other	1	4	2	3	0	2	6	2	2	1	0	2	0	25
Not reported	3	5	2	0	0	1	1	2	1	0	1	1	0	17
Total	313	118	64	29	29	86	109	92	39	79	91	67	6	1122

Country of qualification

Table 88 shows that the majority of registered psychologists who practice in New Zealand also trained in New Zealand (83.3 percent).

Table 88: *Country of qualification of active registered psychologists, 1999*

Country	Number	Percentage
New Zealand	498	83.3
United Kingdom	24	4.0
South Africa	22	3.7
USA	18	3.0
Australia	9	1.5
Canada	5	0.8
Germany	3	0.5
Netherlands	3	0.5
India	2	0.3
Other	5	0.8
Not reported	9	1.5
Total	598	100.0

Hours worked

Table 89 shows the number of full-time equivalent (FTE) registered psychologists in each geographic region, based on the distribution of the 598 registered psychologists who responded to the survey. On average in New Zealand, there were 13.4 registered psychologists per 100 000 population. In 1999 Tairawhiti and Southland reported fewer registered psychologists than the national average, whereas Otago and Wellington reported much higher ratios per capita.

Table 90 shows the number of FTE registered psychologists in each work type. Clinical psychology (39.8 percent) and educational psychology (14.0 percent) were the areas where registered psychologists spent most of their time. On average, registered psychologists reported that they worked approximately 33.6 hours per week.

Table 89: *Geographic distribution of active registered psychologists by hours, FTE, 1999*

Geographic region	Hours	FTE	Rate per 100 000 population
Northland	451.0	11.3	8.0
Auckland	5744.5	143.6	12.5
Waikato	1929.6	48.2	13.3
Bay of Plenty	775.5	19.4	8.2
Tairawhiti	110.0	2.8	5.9
Hawke's Bay	547.5	13.7	9.3
Taranaki	484.8	12.1	11.2
Manawatu-Wanganui	952.0	23.8	11.0
Wellington	3087.0	77.2	18.1
Nelson-Marlborough	594.0	14.9	12.4
West Coast	88.0	2.2	6.7
Canterbury	3407.6	85.2	17.7
Otago	1632.0	40.8	23.3
Southland	235.0	5.9	5.2
Not reported	73.0	1.8	-
Total	20 111.4	502.8	13.4

Table 90: *Work type of active registered psychologists at their main employment setting by hours, FTE, 1999*

Work type	Hours	FTE	Percentage
Clinical psychology	8007.8	200.2	39.8
Educational psychology	2819.7	70.5	14.0
Industrial/organisational	1747.0	43.7	8.7
Service management	1497.5	37.4	7.4
Psychotherapy	1097.0	27.4	5.5
Counselling	1083.5	27.1	5.4
Teaching	997.0	24.9	5.0
Research	890.5	22.3	4.4
Rehabilitation	480.0	12.0	2.4
Personnel management	464.0	11.6	2.3
Study	213.0	5.3	1.1
Other	791.5	19.8	3.9
Not reported	23.0	0.6	0.1
Total	20 111.4	502.8	100.0

Appendix 1

Ethnicity

The ethnicity of the active selected health professionals in New Zealand was self-identified. 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 professionals was introduced in the 1996 workforce surveys. This means that a new time series of prioritised ethnicity for the selected health professionals workforce started in 1996. For this reason ethnicity data for 1996 cannot be compared to 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, secondary and tertiary employer. The analysis in this publication is based on the respondent's 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 (Crown health enterprise)
- University
- Other employer
- Employment setting not reported

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

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

Dietitians
- CHE (Crown health enterprise)
- 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 (Crown health enterprise)
- Private practice (self-employed)
- Private practice (group practice)
- Private hospital or rest home
- University/polytechnic
- Government dept/Crown agency
- Other employer
- Employment setting not reported

Occupational therapists

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

Physiotherapists

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

Podiatrists

CHE (Crown health enterprise)
Private practice (self-employed)
Private practice (employed)
Private hospital or rest home
University/polytechnic
Orthotic laboratory representative
Other employer
Employment setting not reported

Registered Psychologists

CHE (Crown health enterprise)
Private practice (self-employed)
Private practice (employed)
University/polytechnic
Specialist Education Services
Children & Young Persons Service
Dept 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 surveys ask 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 service
- 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)

(continued overleaf)

Community/domiciliary
Acute/intensive care
Intellectual handicap
Teaching
Study/research
Management
Other work type
Work type not reported

Podiatrists
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 Service
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
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 consistent time-series comparison for active selected health professions in New Zealand.

The map below shows the boundary of each AHB district, and the table lists the territorial local authorities (TLA) included in each AHB. Statistics New Zealand determined the TLA grouping.

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
Bay of Plenty	Western Bay of Plenty, Tauranga, Rotorua, Whakatane, Kawerau, Opotiki
Tairawhiti	Gisborne
Hawke's Bay	Wairoa, Hastings, Napier, Central Hawke's Bay
Taranaki	New Plymouth, Stratford, South Taranaki
Manawatu-Wanganui	Ruapehu, Wanganui, Rangitikei, Manawatu, Palmerston North, Tararua, Horowhenua, Kapiti Coast
Wellington	Porirua, Upper Hutt, Lower Hutt, Wellington, Masterton, Carterton, South Wairarapa
Nelson-Marlborough	Tasman, Nelson, Marlborough
West Coast	Buller, Greymouth, 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

Appendix 5

Population data

The New Zealand population used for the calculation of rates is the projected population for 30 June 1997 (Source: Statistics New Zealand).

Area Health Board	Population
Northland	141 650
Auckland	1 152 000
Waikato	361 510
Bay of Plenty	237 280
Tairawhiti	46 800
Hawke's Bay	147 000
Taranaki	107 980
Manawatu-Wanganui	215 600
Wellington	427 110
Nelson-Marlborough	119 800
West Coast	33 010
Canterbury	482 050
Otago	175 450
Southland	112 650
New Zealand	3 760 700

Note: Owing to rounding, figures in this table do not sum 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 respondents 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.

CHE

CHEs (Crown health enterprises) are now currently known as HHSs (hospital and health services).