



The New Zealand Medical Workforce in 2004

Introduction

This report presents a summary of the most relevant results of the 2004 survey by the Medical Council of New Zealand. It follows the report *Medical Workforce in 2003*, which presented extensive information on changes in the medical workforce and changes in retention. Additional detailed analysis of this survey is provided by the Ministry of Health and individual information requirements can be discussed with the Analytical Unit of the New Zealand Health Information Service.

The size of the workforce: The number of doctors in active employment increased from 2003 by two percent to 8,991. Although doctors voluntarily complete the workforce survey, this increase occurred despite a three percent decrease in the response rate from 2003.

There was one active doctor for 451 persons in the New Zealand population and one full time equivalent position for every 394 persons. Full time equivalents (FTEs) were calculated proportionately, so that 60 hours per week equals 1.5 FTE.

Demographics:

Age: The mean age for all doctors rose to 44 years from 43 in 2003 and the median age remained at 43 years.

Gender: The proportion of women doctors remained at 35 percent of the workforce; 51 percent of house officers; 39 percent of GPs; and increased one percent to 31 percent of specialists (including GPs).

Overseas doctors: The proportion of overseas-trained doctors rose two percent to 36 percent; remained at 17 percent of house officers; remained at 37 percent of GPs; and rose two percent to 38 percent for specialists (including GPs).

Ethnicity: The proportion of Maori doctors dropped slightly to 2.6 percent from 2.7 percent in 2003, while Pacific Island doctors increased slightly to 1.3 percent from 1.1 in 2003. Maori continued to be markedly under-represented when compared to the percentage in the population. The mean age of Maori doctors was 40 years and of Pacific Island doctors was 39 years.

For the purpose of this workforce report “specialist” refers to the doctor’s self-reported work role, and is not synonymous with vocational registration.

The data for the 2004 workforce survey used in this report was collected under the Medical Practitioner’s Act. Vocabulary used may differ to that used under the current Health Practitioners Competency Assurance Act.

Methods

Workforce data are collected as part of the renewal of annual practising certificates. In 2000 this process was changed from one period in the year to four periods depending on the birth date of the doctor. The four periods of data in this report ended November 2003, February 2004, May 2004 and August 2004 and are presented as at 31 March 2004.

The sampling frame for the workforce survey questionnaire included doctors with general or probationary registration, a current annual practising certificate (APC) and a New Zealand address at the date of collection. Therefore the survey excludes those doctors on temporary registration.

The questionnaire was posted out a month or more before the end of the period and those not responding were sent up to three reminder letters. All data were collected within three months of the end of a period and confirmation phone calls made if the information needed clarification.

Data for this report were collected in the categories "Employer", "Role" and "Work Type" at a main work site; and second and third work sites where appropriate. Role options were general practitioner; primary care; house officer; registrar; medical officer; specialist/consultant; and other. The same categories are used in this report to identify the role and type of work, and do not indicate level of expertise.

This report also includes data drawn from the Council's registration information, to avoid duplicating questions in the APC application (age, sex, registration date, and graduation country and year).

There is also temporary registrant data used in this report. Temporary registrants are not asked to complete the workforce survey, and this data is also drawn from the Medical Register.

Geographical analysis used territorial authorities and District Health Board regions based on the employment information for the main work site. DHB populations were determined by amalgamating territorial authority population counts from the Estimated Resident Population as at 30 June 2004¹. Full time equivalents (FTEs) were calculated proportionately, so that 60 hours per week equals 1.5 FTE.

Multiple responses of ethnicity are reported as a single category, according to a simplified version of Statistics New Zealand's prioritisation standard. Thus a single ethnic category was selected from multiple responses in the following priority order: New Zealand Maori, Pacific Island, Chinese, Indian, Other Ethnic Group, Other European and NZ European.

¹ Statistics New Zealand : Estimated Resident Population as at 30 June 2004

Results

Response

During the 2004 workforce survey 10,522 survey forms were sent out to doctors with New Zealand addresses. Of these 9,719 doctors responded, giving a response rate of 92 percent. The results in this report include only the 8,991 doctors in "active employment", working four or more hours per week as shown in Table 1. There may however be doctors in "active employment" who did not respond to the survey.

There was a slight drop in the number of overseas doctors during the 2002 year, perhaps due to the reduced travel as a result of world events, but the count increased again in 2003 and 2004 (Figure 1).

Temporary registrants

The number of temporary registrants, both as a headcount and as a proportion of the workforce measured by registration data decreased again in 2004 (from 758 to 731 - 7 percent to 6.5 percent) after also decreasing in 2003 (from 789 to 758 - 7.4 percent to 7 percent). These decreases followed an increase from 4.3 percent of the workforce measured by registration data in 2000 to 7.4 percent in 2002.

This increase was attributed in the 2003 report to a change in Council policy in December 2000 whereby NZREX requirements for doctors on temporary registration from the United Kingdom, Ireland, Canada, South Africa and United States of America who wished to stay in New Zealand permanently were waived.

These subsequent decreases may indicate that the number of doctors registered under this pathway is settling after the initial burst of interest following its introduction.

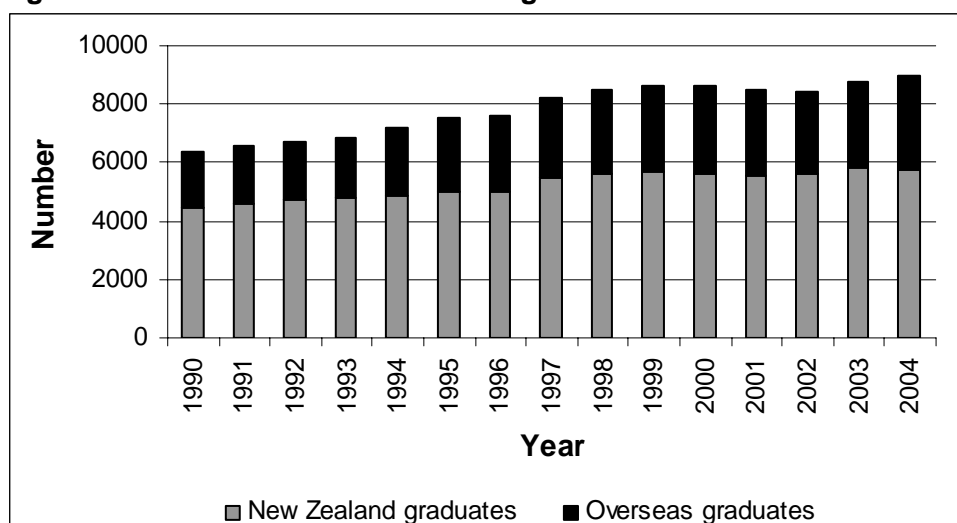
Table 1: Estimates of annual workforce growth and changes in composition

	1980	1985	1990	1995	2000	2001	2002	2003	2004
Growth per year:									
1) measured by survey responses	-	-	-	4.9	0.0	-1.4	-1	4.6	2.2
2) measured by registration data	-	-	-	6.3	2.6	-2.5	7.6	2.9	4.2
Graduated from:									
New Zealand	3266	4095	4480	5024	5645	5567	5608	5796	5788
Overseas	1615	1461	1859	2506	2970	2924	2795	2994	3203
Total workforce (survey response)	4881	5556	6339	7530	8615	8491	8403	8790	8991
% overseas trained	33.1	26.3	29.3	33.3	34.5	34.4	33.3	34.1	35.6
Total workforce (registration data)	-	-	-	-	9779	9770	10605	10857	11253
Temporary registrants	-	-	165	129	421	646	789	758	731
Percent of workforce	-	-	2.5	1.7	4.3	6.6	7.4	7.0	6.5
Average age of workforce	-	-	42	41	43	43	43	43	44

- 1 Growth per year is the percentage change in total workforce year to year
- 2 Data are five-yearly up to 2000 then annually. Some earlier data are not available.
- 3 Temporary registrants are not asked to complete the workforce survey. Data is from the Medical Register
- 4 The total workforce according to registration data is calculated by combining the number of survey forms sent out to doctors with New Zealand addresses during the workforce survey

period and the number of temporary registrants on the register as at 31 March of the survey period.

Figure 1: New Zealand and Overseas graduates



Size of the medical workforce

Recent changes in the roles of the active doctor population are shown in Table 2. The workforce increased to 8,991 active doctors, up 2.3 percent from 2003.

Table 2: Changes in the medical workforce

Workforce Role	Active doctors ¹ 2000	Active doctors ¹ 2001	Active doctors ¹ 2002	Active doctors ¹ 2003	Active doctors ¹ 2004	Percentage Change 2003 to 2004
General practice	3,166	3,037	2,917	3,006	3,013	0.2
House officer	894	760	774	842	816	-3.1
MOSS	277	289	277	303	315	4.0
Primary care other than GP	190	171	166	138	138	0.0
Registrar	1,227	1,242	1,238	1,319	1,338	1.4
Specialist (not including GP)	2,653	2,725	2,723	2,873	2,946	2.6
Other	206	233	252	244	314	28.3
No Answer	2	34	56	65	111	70.8
Total	8,615	8,491	8,403	8,790	8991	2.3

¹ Headcount

General practitioner numbers increased slightly by 0.2 percent after increasing by 3.1 percent in 2003 but still remain below the 2000 level of 3166.

House Officers: After steady increases in 2002 and 2003, house officer numbers dropped by 3.1 percent.

Medical Officer numbers have steadily increased since 2002, increasing 13.7 percent in that time. Only 17 percent of medical officers reported themselves as being in vocational training, and 84 percent listed public hospital as their main work place. 45 percent of medical officer FTE hours were spent on work type Emergency Medicine or Psychiatry. Medical officers were evenly represented with 52 percent overseas trained and 46 percent women.

Primary care other than GP: There was no change from 2003. 67 percent of doctors working in primary care other than GP were New Zealand trained and 61 percent were male.

Registrars: The steady year by year increase continues with an increase of 1.4 percent.

Work type and postgraduate training

The change in work type since 2003 is shown in Table 3. Doctors working as house officers are not included in the table.

Vocational training is identified by respondents who use a broad self-definition of training towards vocational registration.

There were large percentage increases in doctors involved in intensive care medicine, medical administration, palliative medicine and paediatric surgery. The 70 percent increase in paediatric surgery (from 10 to 17) reverses a trend which saw it decrease from 17 to 15 in 2002 and from 15 to 10 in 2003.

The decline in the number of doctors in primary care flattened out in 2004, only decreasing by four percent (387 to 373) after decreasing by 19 percent in 2003 and by 32 percent in 2002. These declines have previously been attributed to individuals redefining themselves as being involved in other vocational groups in 2002 and 2003. Accordingly, the increase observed in the other vocational groups in 2003 has been less pronounced in 2004. In particular, accident and medical practice grew from 76 to 85; family planning grew from 20 to 24 and general practice grew slightly from 2715 to 2737.

Other decreases that are of interest include breast medicine, dermatology, musculoskeletal medicine, and vascular surgery. The 23 percent decrease in the number of doctors in vascular surgery (from 22 to 17) follows increases of 14 percent in 2002 and 16 percent in 2003.

Table 3: Vocational groups at main work site (house officers excluded)¹

Work type at main work site ²	No. of doctors in main work site	Percent of total doctors	No. of doctors in main work site 2003	Percent change 2003 to 2004	Average hours worked (all sites) ³	No. in vocational training ⁴	Vocational registration current APC NZ address
Accident and medical practice	85	1	76	12	39	21	36
Anaesthesia	558	7	544	3	49	150	355
Basic Medical Science	35	0	28	25	43	3	8
Breast medicine	9	0	11	-18	30	3	3
Cardiothoracic surgery	22	0	24	-8	56	2	14
Dermatology	37	0	48	-23	46	1	34
Diagnostic and interventional radiology	270	3	267	1	46	53	208
Emergency medicine	188	2	181	4	42	73	62
Family planning and reproductive health	24	0	20	20	28	2	11
General practice	2737	34	2715	1	40	511	1691
General surgery	259	3	238	9	56	63	146
Intensive care medicine	57	1	30	90	54	14	35
Internal medicine	812	10	835	-3	50	184	481
Medical administration	46	1	32	44	44	2	34
Musculoskeletal medicine	9	0	11	-18	50	1	8
Neurosurgery	13	0	15	-13	54	0	12
Obstetrics and gynaecology	233	3	233	0	50	41	176

Work type at main work site ²	No. of doctors in main work site	Percent of total doctors	No. of doctors in main work site 2003	Percent change 2003 to 2004	Average hours worked (all sites) ³	No. in vocational training ⁴	Vocational registration current APC NZ address
Occupational medicine	52	1	58	-10	45	13	34
Ophthalmology	105	1	106	-1	45	11	86
Oral and maxillofacial surgery ⁵	9	0	0	100	46	0	0
Orthopaedic surgery	230	3	230	0	56	46	146
Otolaryngology head and neck surgery	91	1	84	8	48	16	70
Paediatric surgery	17	0	10	70	54	2	12
Paediatrics	293	4	272	8	49	91	161
Palliative medicine	40	0	30	33	39	4	26
Pathology	195	2	185	5	43	33	142
Plastic and reconstructive surgery	53	1	61	-13	57	16	31
Primary Care	373	5	387	-4	40	61	223
Psychiatry	549	7	528	4	44	139	301
Public health medicine	189	2	204	-7	42	33	115
Radiation oncology	38	0	37	3	49	10	23
Rehabilitation medicine	17	0	14	21	45	6	5
Sexual health medicine	24	0	23	4	29	5	11
Sports medicine	15	0	16	-6	45	5	9
Surgery: Other	25	0	41	-39	49	1	16
Urology	52	1	49	6	54	6	39
Vascular surgery	17	0	22	-23	61	1	11
Not Answered	255	3	160	59	46	63	129
Other	136	2	121	12	41	19	75
Grand Total	8241	100	7946	4	45	1705	4979

¹ includes registrars, medical officers and others not on the vocational register

² based on vocational groups, except for categories 'basic medical science', 'primary care other than GP' and 'other surgical sub-specialties'

³ totals exclude House Officer Rotation.

⁴ the vocational training area may be different from the work type at the main work site

⁵ oral and maxillofacial surgery is a new vocational group in the 2004 survey. In 2003 it was part of Surgery: Other

* to prevent identification of individuals, categories which contain less than 4 doctors are omitted. The data has been replaced in the table with an asterisk (*)

Hours worked

The mean hours per week worked for all active doctors was 45.8 hours. Table 4 shows mean hours were highest for doctors aged 24 years or younger at 57.7 hours per week.

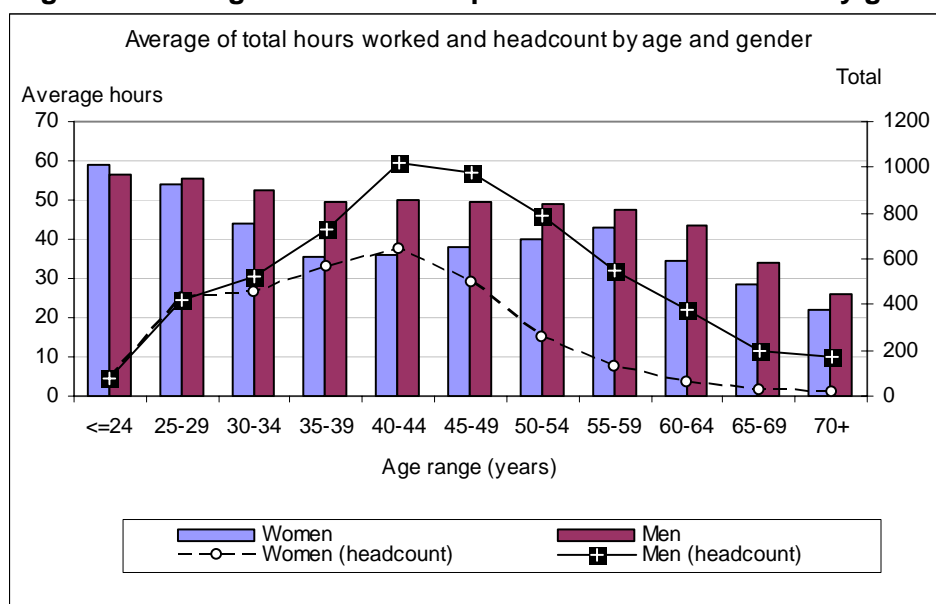
Table 4: Average of total hours worked by age and gender

Average hours / week	Age Range											
Gender	<=24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	All ages, av hrs
Women	59.1	54.0	43.8	35.5	36.2	37.8	40.1	42.8	34.5	28.6	22.1	40.9
Men	56.4	55.4	52.3	49.6	50.1	49.7	48.9	47.6	43.4	34.1	25.9	48.5
Total	57.7	54.7	48.3	43.5	44.7	45.7	46.7	46.7	42.2	33.5	25.5	45.8

Headcount	Age Range											
Gender	<=24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	All ages, count
Women (headcount)	77	432	459	569	642	499	262	127	56	23	14	3160
Men (headcount)	80	418	520	732	1020	979	786	551	376	193	176	5831
Total	157	850	979	1301	1662	1478	1048	678	432	216	190	8991

Women in their twenties were working an average of 54-59 hours per week, dropping to 35.5 hours per week for women in the 35 to 44 age bracket. Figure 2 shows the average hours increased again to 42.8 hours for women in the 55-59 year range and declined thereafter.

Figure 2: Average hours worked per week and headcount by gender



For men the mean hours remained steady at about 50 hours per week until 50-54 years, then decreased. In the 35-39 age group, the difference between average hours of men and women was greatest, with men working an average of 40 percent more hours per week than women

The average hours worked overall per week dropped to 45.8 in 2004 from 46.2 in 2003 after previously dropping from 47.6 in 2002. This information is self reported, includes specialists and GPs in private practice, and is not benchmarked against DHB employment data.

Hours on Call

When completing the workforce survey doctors are asked to record all hours they actually worked in an average week as “hours worked”. “Hours on call” therefore includes only those additional hours doctors were on-call but not actually working.

Table 5 shows workforce roles by on-call hours. The distribution of doctors on call includes 61 percent of doctors with no time on call while 17 percent spent 20 or more hours on call.

Table 5: Proportion of doctors by on-call hours grouped in each work role

On-call hours grouped	General practice	Primary care other than GP	House Officer	Registrar	Medical officer	Specialist	Other
No on-call hours	66	86	90	77	68	40	83
1 - 4	7	2	1	2	2	3	3
5 - 9	6	1	5	7	3	8	3
10 - 19	9	4	3	8	11	19	4
20 - 49	8	4	1	6	12	24	5
50 and more hours	4	2	0	1	3	6	2
Total	100	100	100	100	100	100	100

The differences were most marked in the specialist group in which 49 percent had 10-50 or more hours per week on call.

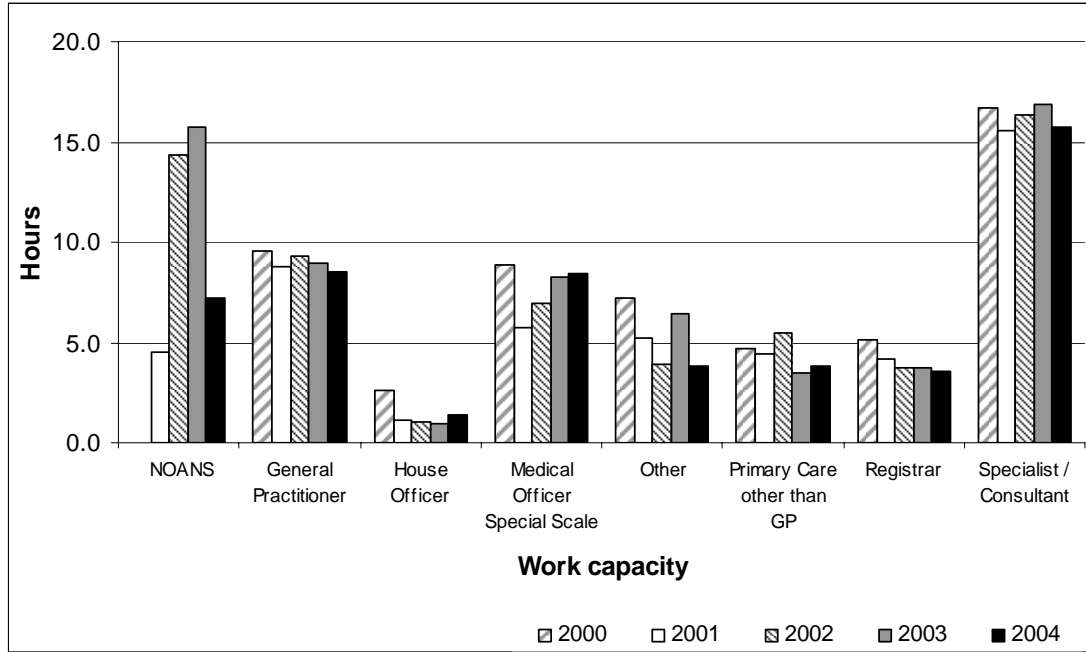
Of the specialists with 10 or more hours on call 80 percent recorded a public hospital as their main place of work (Table 6).

Table 6: Number of doctors working 10 or more hours on call per week

Main Employer	Specialist	Total all work roles
Commercial Company	18	33
Government Department / Agency	7	21
Professional Body	2	2
Group Private Practice	104	516
Private Hospital	24	29
Public Hospital	1148	1453
Solo Private Practice	84	263
University / Polytechnic	22	37
No Answer	4	12
Other	21	80
Grand Total	1434	2446

Figure 3 shows that on call hours are generally decreasing apart from specialists and medical officer categories.

Figure 3: Average on call¹ hours by work capacity



¹ On call hours are defined as those hours the doctor was on call, but not actually working.

Geographical Distribution

District Health Boards

The number of full time equivalent GPs ranged from 60 per 100,000 population for the Waitemata and the West Coast to 91 per 100,000 population for Auckland and Otago (Table 7).

The biggest increases since 2003 in full time equivalent GPs per 100,000 occurred in MidCentral which increased from 63 to 69 and South Canterbury which increased from 68 to 80. The biggest decrease since 2003 occurred in Nelson-Marlborough which decreased from 82 to 75.

Territorial Local Authorities

Territorial authorities with FTEs for general practice below 50 per 100,000 population were Waikato, South Waikato, Kaipara, Otorohanga, Wairoa, Central HB District, Horowhenua, Carterton, Waimakariri and Southland (Table 8).

Territorial authorities with more than 100 GP FTEs per 100,000 were Waitomo, Kaikoura, Hurunui, MacKenzie, (Table 8). All doctors working in the Kawerau and Wairoa districts qualified overseas, while all working in the Opotiki District qualified in New Zealand.

Table 7 : GP workforce by DHB locality of main work site

DHB locality	2004			2003	
	Number of GPs	FTEs for GPs at all work sites ⁴	DHB locality population	FTEs for GPs per 100 000 population	FTEs for GPs per 100 000 population
Northland	111	120	147650	81	86
Waitemata	305	289	485100	60	64
Auckland	404	383	420700	91	91
Counties-Manukau	269	259	426200	61	60
Waikato ¹	241	255	343060	74	76
Bay of Plenty	138	133	191180	70	71
Lakes	72	71	101500	70	72
Tairāwhiti	29	33	44900	73	69
Hawkes Bay	101	102	149720	68	72
Taranaki	70	68	105550	65	69
Midcentral	97	107	154800	69	63
Wanganui	33	38	58500	66	64
Wairarapa	24	25	39280	65	67
Hutt	93	92	138200	67	71
Capital and Coast ²	231	215	279400	77	80
Nelson-Marlborough	106	100	133400	75	82
West Coast	19	19	30590	61	58
Canterbury	393	379	465180	81	86
Otago	158	159	174250	91	92
South Canterbury	35	43	53950	80	68
Southland ³	84	82	115800	71	66
Total	3013	2973	4058910	73	75

¹Includes all TLA Ruapehu

²Includes all TLA Kapiti

³Includes all TLA Queenstown-Lakes

⁴Note : the calculation of GP FTE includes all hours recorded at site1, site2 and site3 where the work role was GP for that work site. In the 2003 report, this was calculated as including all hours recorded at site1, site2 and site3 where the work role at site1 was GP. The calculation used in this report better reflects the number of FTE GPs. As the 2003 column has been recalculated using this more accurate method, it may differ from the figures listed in the 2003 report.

Allocation of Territorial authorities to District Health Board regions

Council would like to acknowledge an error in the allocation of territorial authorities to District Health Boards in the workforce survey reports for 2001, 2002 and 2003. In these reports, the Territorial authority of Ashburton was allocated to South Canterbury District Health Board instead of Canterbury District Health Board. This has been corrected in table seven above so that all columns are now correct, including the FTEs for GPs per 100,000 population column for 2003.

Table 8: Medical workforce by territorial authority of main work site

Site1 Territorial Authority ¹	No. of GPs	FTEs GPs	FTE GPs per 100 000	Ave hours GPs	No. of all doctors	No. of doctors per 100 000	Overseas doctors % of all	Territorial authority pop'n ²
North Shore City	151	137	65	37	507	242	30	205,000
Waitakere City	106	101	53	39	152	80	35	185,600
Auckland City	404	383	91	38	1845	439	31	415,300
Manukau City	202	190	58	39	662	203	38	317,500
Hamilton City	111	115	89	41	549	425	42	125,000
Napier City	45	47	83	44	68	121	47	55,800
Palmerston North City	60	64	82	44	252	323	40	77,100
Porirua City	43	42	82	40	73	144	40	50,300
Upper Hutt City	30	30	80	41	31	82	39	37,800
Lower Hutt City	63	62	62	40	192	191	38	99,900
Wellington City	151	140	77	37	719	394	26	179,100
Nelson City	42	39	87	38	155	342	27	44,500
Christchurch City	322	303	88	39	1055	307	29	338,800
Dunedin City	119	117	96	41	493	404	30	121,200
Invercargill City	44	44	86	41	117	226	50	51,800
Far North District	46	52	91	45	54	94	54	57,100
Whangarei District	57	59	82	43	181	251	43	71,400
Kaipara District	8	8	47	44	9	50	67	18,050
Rodney District	48	52	60	45	55	64	42	84,100
Papakura District	30	32	74	45	39	90	28	43,100
Franklin District	37	36	64	41	38	67	50	55,500
Thames								
Coromandel District	23	25	93	43	35	132	66	26,300
Hauraki District	11	13	75	46	11	65	55	17,000
Waikato District	16	19	45	46	22	52	50	42,100
Matamata-Piako District	21	24	79	46	22	73	59	30,300
Waipa District	28	26	63	37	32	77	53	42,400
Otorohanga District	*	4	45	57	*	32	33	9,540
South Waikato District	10	11	45	42	13	56	62	23,600
Waitomo District	8	9	96	51	11	114	45	9,700
Taupo District	18	19	56	42	25	74	32	33,300
Western BOP District	19	21	54	45	20	51	35	40,700
Tauranga District	84	77	76	37	252	249	32	98,500
Rotorua District	54	52	76	39	156	230	38	67,600
Whakatane District	30	29	86	39	60	176	73	34,000
Kawerau District	4	4	54	37	5	74	100	7,000
Opotiki District	*	2	18	70	*	10	0	9,580
Gisborne District	29	33	73	46	70	156	50	45,200
New Plymouth District	52	47	68	39	157	227	45	69,100
Stratford District	6	7	76	47	6	69	50	8,820
South Taranaki District	12	14	52	49	17	62	82	27,900
Ruapehu District	8	10	72	51	11	80	45	14,200
Wairoa District	*	3	34	51	*	35	100	8,880

Site1 Territorial Authority1	No. of GPs	FTEs GPs ³	FTE GPs per 100 000	Ave hours GPs	No. of all doctors	No. of doctors per 100 000	Overseas doctors % of all	Territorial authority pop'n 2
Hastings District	47	47	65	41	166	233	33	70,600
Cent. HB District	6	6	48	43	7	53	71	13,150
Wanganui District	26	30	68	49	88	202	64	43,900
Rangitikei District	7	9	59	55	9	60	33	15,100
Manawatu District	16	19	69	50	31	110	29	28,300
Tararua District	11	11	61	40	11	62	55	17,950
Horowhenua District	10	13	42	52	16	52	81	30,600
Kapiti Coast District	37	33	72	37	43	93	44	45,200
Masterton District	16	17	71	44	41	176	59	23,300
Carterton District	*	3	39	37	*	42	67	7,100
South Wairarapa District	5	6	69	52	6	68	50	8,860
Tasman District	32	28	61	37	34	74	47	44,700
Marlborough District	31	32	76	43	52	123	46	41,700
Kaikoura District	*	4	102	49	5	138	40	3,610
Buller District	6	6	61	39	7	73	86	9,720
Grey District	10	9	68	36	29	222	55	13,100
Westland District	*	4	49	53	3	38	67	7,930
Hurunui District	10	11	103	45	15	141	67	10,450
Waimakariri District	15	16	40	45	15	37	20	39,800
Banks Peninsula District	7	6	72	38	7	84	43	8,200
Selwyn District	21	21	67	40	22	71	36	30,000
Ashburton District	15	18	66	48	23	86	35	26,500
Timaru District	28	33	76	47	73	169	42	42,900
Mackenzie District	*	7	189	94	*	80	67	3,760
Waimate District	4	4	51	36	4	56	50	7,120
Waitaki District	15	16	78	43	20	100	50	20,200
Cent. Otago District	14	15	100	45	20	133	35	14,950
Queenstown-Lakes District	25	22	100	37	33	149	27	20,700
Clutha District	9	11	64	49	10	58	50	17,400
Southland District	9	9	30	40	9	31	67	29,400
Gore District	6	7	55	47	8	64	63	12,600
Total	3,009	2973	73	40	8991	222	36	4,008,470

¹ To prevent identification of individuals, categories which contain less than 4 doctors are omitted

² Statistics NZ, Estimated Resident Population as at 30 June 2003

³ Note : the calculation of GP FTE includes all hours recorded in GP role at site1, site2 and site3

* To prevent identification of individuals, categories which contain less than 4 doctors are omitted. The data has been replaced in the table with an asterisk (*)

Ethnicity

Doctors who identified as Maori decreased slightly to the 2001 level of 2.6 percent (234 doctors) and Pacific Island increased to 1.3 percent (121 doctors). (Table 9).

Table 9: Ethnicity

Ethnicity	%	%	%	%	%	Average age	
	2004	2003	2002	2001	2000	Females	Males
New Zealand Maori	2.6	2.7	2.7	2.6	2.3	37.4	42.0
Pacific Island	1.3	1.1	1.0	1.1	1.1	33.4	40.4
Chinese	5.8	5.4	5.1	4.8	4.5	31.9	38.5
Indian	5.4	4.9	4.8	4.8	4.5	39.4	44.3
Other	8.7	9.1	10.0	8.7	7.6	40.8	44.4
Other European ¹	16.2	14.6	12.8			42.0	45.6
NZ European / Pakeha	58.4	60.0	61.8	76.5	76.5	40.3	47.3
No answer	1.5	1.8	1.6	1.5	3.2	41.1	45.8
Refused	0.2	0.3	0.2	0.0	0.2	41.5	47.8
Total	100.0	100.0	100.0	100.0	100.0	40.0	45.8

¹ 2002 first year of reporting "Other European" category

Of doctors identifying as either Maori or Pacific Island (a total of 355), 33 percent reported their main work role as general practitioner, 11 percent as House Officer, 22 percent as Registrar and 23 percent as specialist.

Those doctors identifying themselves as Chinese have been consistently rising each year and are now at 5.8 percent (520 doctors). The biggest increase in 2004 is in those identifying as 'other European' which has increased from 14.6 percent in 2003 to 16.2 percent in 2004.

The younger average age of Maori, Pacific Island and Chinese doctors demonstrates the higher representation of these ethnic groups in medical school classes in recent years.

The decrease in the number of NZ European/Pakeha doctors (from 76.5 percent in 2001 to 58.4 percent) is largely due to the inclusion of Other European as a separate category since 2002. Prior to 2002, these categories were combined.

Table 10 shows the areas where Maori doctors were working.

Table 10: Distribution of Maori doctors by DHB

DHB	Percent
Auckland	26.5
Counties-Manukau	9.4
Capital and Coast	8.5
Canterbury	7.3
Waitemata	6.8
Waikato	6.4
Bay of Plenty	4.3
Hutt	4.3
Lakes	4.3
Otago	4.3
Hawkes Bay	3.4

Tairāwhiti	3.0
Midcentral	2.6
Nelson-Marlborough	2.1
Northland	2.1
Southland	1.3
Taranaki	1.3
Other (South Canterbury, Wairarapa, West Coast, Wanganui)	2.1

Distribution by gender

Vocational trainees: All vocational trainees in family planning and reproductive health, dermatology, and sexual health medicine were women, and there were no women working or training in the vocational branches of medical administration, neurosurgery, paediatric surgery or vascular surgery.

There were other large gender imbalances for vocational training in obstetrics and gynaecology (73 percent female), paediatrics (68 percent female), and public health medicine (82 percent female). Of those participating in vocational training for surgical branches, less than one quarter were women. (Table 11)

Table 11: Vocational training branch by gender

Vocational training area ¹	Women	Men	Total	Women as % of total training in area	Women training in area as % of all women training	Men training in area as % of all men training
Accident and medical practice	5	25	30	17	1	3
Anaesthesia	66	90	156	42	9	10
Breast medicine	*	*	*	80	1	0
Cardiothoracic surgery	*	*	*	20	0	0
Dermatology	*	0	*	100	0	0
Diagnostic and interventional radiology	16	36	52	31	2	4
Emergency medicine	34	71	105	32	4	8
Family planning and reproductive health	*	0	*	100	0	0
General practice	290	260	550	53	37	28
General surgery	17	54	71	24	2	6
Intensive care medicine	*	*	*	57	1	0
Internal medicine	57	115	172	33	7	12
Medical administration	0	*	*	0	0	0
Musculoskeletal medicine	*	*	*	50	0	0
Neurosurgery	0	*	*	0	0	0
Obstetrics and gynaecology	30	11	41	73	4	1
Occupational medicine	*	*	*	7	0	1
Ophthalmology	4	9	13	31	1	1
Orthopaedic surgery	5	37	42	12	1	4
Otolaryngology head and neck surgery	4	9	13	31	1	1
Paediatric Surgery	0	*	*	0	0	0
Paediatrics	62	29	91	68	8	3
Palliative medicine	*	*	*	50	0	0
Pathology	19	14	33	58	2	2

Plastic and reconstructive surgery	4	11	15	27	1	1
Psychiatry	71	75	146	49	9	8
Public health medicine	28	6	34	82	4	1
Radiation oncology	7	7	14	50	1	1
Rehabilitation medicine	*	*	*	40	0	0
Sexual health medicine	7	0	7	100	1	0
Sports medicine	*	*	*	40	0	0
Surgery: other	0	0	0	0	0	0
Urology	*	*	6	33	0	0
Vascular surgery	0	*	*	0	0	0
Not answered	17	13	30	57	2	1
Other	11	21	32	34	1	2
Total	774	932	1706	45	100	100

¹ House Officers excluded

* To prevent identification of individuals, categories which contain less than 4 doctors are omitted. The data in the table has been replaced with an asterisk (*).

Work Role: The overall proportion of women in the workforce remained 35 percent. Of those in house officer roles 51 percent were women. This is the third year in succession where women have outnumbered men in house officer roles. The distributions of women per work role were: general practitioner 40 percent, primary care 39 percent, medical officer 46 percent, registrar 42 percent and specialist 31 percent (Table 12).

Work types, or vocational branches, where woman outnumbered men were breast medicine (which had all women) and family planning and reproductive health. In palliative medicine and sexual health medicine there were equal numbers of women and men.

Table 12 illustrates that the steady progress women had been making in other specialties including intensive care medicine, obstetrics and gynaecology, pathology and public health medicine has not continued in 2004 with no increase in obstetrics and gynaecology or pathology, and decreases in public health medicine and intensive care medicine.

Particularly in intensive care medicine there was a significant decrease from 22 percent in 2003 to eight percent in 2004.

Table 12: Demographics of doctors working in the main occupational groups

role at main work site	Percent women					Percent overseas trained					av age	
	1980	1990	2002	2003	2004	1980	1990	2002	2003	2004	2003	2004
House Officer	32	44	51	51	51	27	21	15	17	17	29	29
Registrar	23	29	39	40	42	42	22	32	33	35	34	34
Medical officer	38	32	46	45	46	52	50	55	50	52	46	45
Primary care other than GP	49	42	41	38	39	42	39	31	22	33	44	46
Other	46	25	35	37	36	43	32	23	27	35	47	47
Specialists and GPs (role)												
Accident and medical practice*			40	39	35			40	57	62	43	43
Anaesthesia	19	16	20	22	24	41	39	45	42	46	47	47
Basic Medical Science	12	16	0	13	33	31	42	18	25	33	51	49
Breast medicine	3		100	100	100			25	33	25	43	43
Cardiothoracic surgery	-	-	0	6	6	-	-	41	44	31	48	51

Dermatology	8	17	26	23	23	30	20	21	26	17		49	50
	Percent women					Percent overseas trained					av age		
Specialists and GPs (role)	1980	1990	2002	2003	2004	1980	1990	2002	2003	2004		2003	2004
Diagnostic and interventional radiology		14	24	25	28	24	27	32	33	32		48	48
Emergency medicine	13	0	26	24	28	-	50	38	37	37		41	42
Family planning and reproductive health*	-	-	100	67	67			100	0	67		46	41
General practice	4	24	38	39	40	35	30	35	37	37		46	47
General surgery	-	-	6	4	6	-	-	33	37	33		50	51
Intensive care medicine	10		11	22	8			17	28	35		42	47
Internal medicine	-	7	16	16	17	24	34	34	34	33		49	50
Medical administration*			0	15	39			33	46	50		53	54
Musculoskeletal medicine	6		10	0	0			30	33	43		57	56
Neurosurgery	-	-	0	0	8	-	-	42	45	75		53	55
Obstetrics and gynaecology	21	17	32	35	35	24	28	49	47	48		48	48
Occupational medicine	15	5	14	16	16		41	31	32	35		49	51
Ophthalmology	0	11	14	13	14	18	16	21	24	21		49	49
Oral and maxillofacial surgery**					0					50			48
Orthopaedic surgery	-	-	3	4	3	-	-	14	15	14		49	49
Otolaryngology head and neck surgery	0	2	3	3	4	31	24	26	29	26		50	49
Paediatric surgery	-	-	31	22	18	-	-	31	33	17		45	47
Paediatrics	19	23	29	26	29	38	39	35	33	36		47	48
Palliative medicine*			60	47	50			80	74	72		49	49
Pathology	12	22	29	34	34	21	26	40	39	41		49	49
Plastic and reconstructive surgery	-	-	7	8	0	-	-	17	24	33		49	49
Primary Care	-	-	33	35	34	0	-	38	35	38		47	47
Psychiatry	-	28	33	35	35	41	50	55	53	58		48	49
Public health medicine	-	23	32	37	36	44	36	23	25	21		48	47
Radiation oncology	-	5	20	16	24	-	55	68	60	44		46	48
Rehabilitation medicine	-	-	0	0	0	-	-	80	57	67		50	48
Sexual health medicine	17	-	67	80	50	33	50	33	50	33		44	46
Sports medicine	-	-	20	13	0			10	0	13		42	47
Surgery: all ex otolaryngology (80,90) ¹	0	1				20	23						
Surgery: Other	-	-	0	9	10	-	-	26	21	30		47	48
Urology	-	-	3	3	0	-	-	19	21	23		49	50
Vascular surgery	-	-	8	0	0	-	-	17	15	18		53	51
Not Answered			29	12	31			36	49	51		51	46
Other			24	17	27			35	29	38		59	54
Specialists and GPs			29	30	31			36	36	38		47	48
All the above groups	16	24	34	35	35	34	29	33	34	36		43	44

¹ All surgical sub specialities except otolaryngology were combined in 1980 and 1990 data

² "Specialists and GPs" excludes "Not Answered" and "Other"

³ "All the above groups" excludes "Not Answered"

* Vocational branches new in 2002

** Vocational branch new in 2004

- Data not available

Overseas trained doctors

In 2004 the number of doctors working in New Zealand who obtained their primary medical qualification in another country increased again to 36 percent to surpass the 2001 level of 34 percent.

The medical officer work role again had the highest proportion of overseas trained doctors at 52 percent up from 50 percent in 2004.

Of the areas of medicine in which doctors in work roles of specialist or general practitioner were working, accident and medical practice, family planning and reproductive health, neurosurgery, palliative medicine, psychiatry all had more than 50 percent overseas trained doctors.

The increase in the proportion of overseas trained doctors was most notable in neurosurgery which increased from 45 percent in 2003 to 75 percent in 2004.

There were also notable decreases in the proportion of overseas trained doctors in cardiothoracic surgery, dermatology, and paediatric surgery.

Graduate Retention

A review of graduate retention statistics in Table 13 since the introduction of the Medical Practitioners Act in 1995 continues to show that by the third year after graduation approximately 25 percent of doctors from a graduate year will be lost.

There is an interesting result for the class year of 2004. The table shows that 101 percent of registered graduates were retained in postgraduate year one.

What this means is that more doctors from the class year of 2004 were registered in postgraduate year one than held registration in the year immediately subsequent to graduation.

It is notable that the 2004 class was larger than usual with 342 graduates, and almost 20 percent of the graduating class did not register in New Zealand immediately following graduation. The 101 percent retention may be due to doctors who completed their internship overseas, or took a year off registering in the following year.

Table 13 : Graduate retention

Final Class Year ¹	Size of Class ²	Number registered ³	Percent of registered graduates retained by postgraduate year ⁴									
			0	1	2	3	4	5	6	7	8	9
1995	275	258	96	84	74	76	80	74	72	68	65	65
1996	275	264	97	88	78	80	78	77	75	67	63	
1997	284	266	97	86	73	68	72	72	65	68		
1998	288	251	96	80	69	77	77	71	70			
1999	305	270	99	79	75	77	76	72				
2000	323	286	94	82	74	79	78					
2001	297	271	95	79	75	81						
2002	308	285	94	79	75							
2003	329	302	93	80								
2004	342	284	101									
2005	318	297	99									

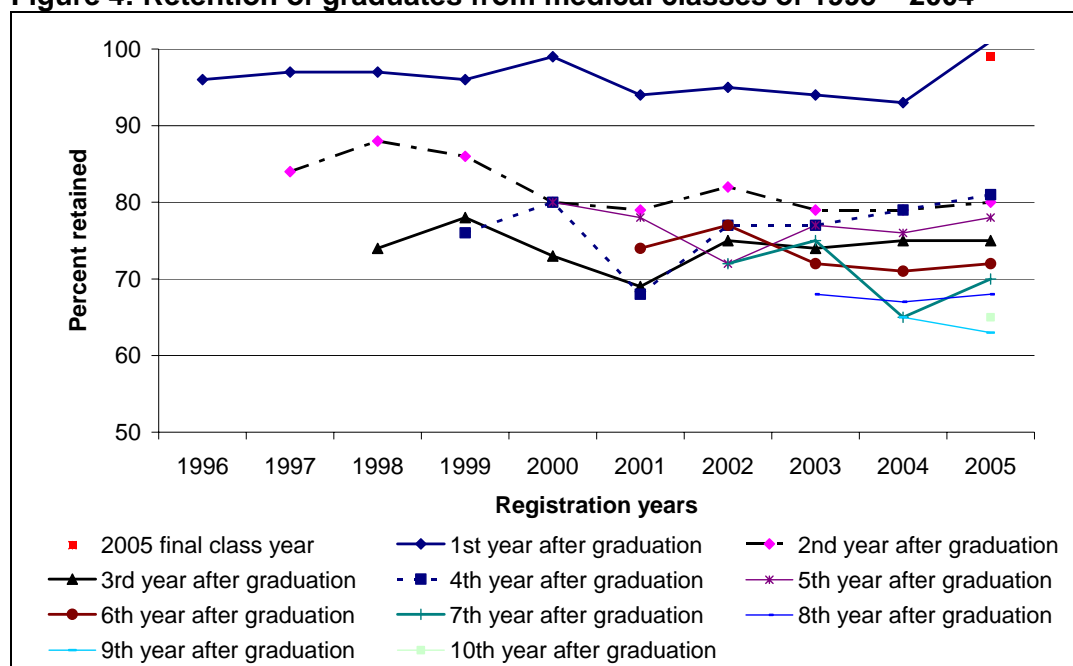
- 1 Final class year is used as Auckland and Otago identify graduate year differently.
- 2 Size of class is list of those in final class years as given by medical schools. Not all will necessarily be eligible for graduation.
- 3 Registered is defined as those from the class year who have been registered at some time.
- 4 Years give those who held one or more APC in the year April to March as a percent of the graduates from the class year who have registered in New Zealand.

Figure 4 shows that after this third year retention appears to stabilise at between 70-80 percent of the original graduate class. There has been little change in retention in the last 10 years.

There are no firm statistics about what medical graduates do if they do not register to do their intern year in New Zealand.

Figures do include fee paying students and the initial drop in retention may possibly be attributed to these graduates returning to their sponsoring countries. Others do their internship overseas and some have the year off.

Figure 4: Retention of graduates from medical classes of 1995 – 2004



Notes

Some doctors reported working many hours and have not reported on call hours. There were some returns with over 100 hours worked in an average week.

The table of workforce by territorial authority of main work site also provides some difficulties. The information is gathered from the APC application and a change of employment noted but no information is collected as to the date of the change.

The results have not been adjusted for non-response.

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Definitions

Active workforce

Doctors included in workforce survey results, being respondents who stated they worked a total of at least four hours in medical (including non-clinical) work during a typical working week.

Full time equivalent

Proportional calculation based on 40 hours per week as one full-time equivalent (FTE) and 60 hours calculated as 1.5 FTE.

Hours worked

Unless otherwise stated, the combined total hours worked per week across all worksites as self-reported by the respondent. Based on a typical working week during the previous year, or the most recent week if the respondent cannot identify a typical week. Hours worked includes only that part of on-call time which is worked.

Hours on call

Additional hours doctors are on-call but not actually working.

Main work site

The work and location in which a practitioner spends the largest portion of their working hours.

Work role

Work role options were general practitioner; primary care; house officer; registrar; medical officer; specialist/consultant; and other.

Work type

As used in Table 3.

Specialist

Specialist is selected by the practitioner from the above work roles. It is generally understood to require membership of the relevant specialist college but self-reporting

leads to broader usage in survey results. This does not include general practitioners or doctors working in accident and medical practice or other primary care disciplines although GPs, specialists, and doctors working in accident and medical practice or other primary care disciplines are all eligible for vocational registration.

Vocational registration

A community-based doctor or specialist who has met the criteria for vocational registration with the Medical Council or New Zealand, including completion of the requirements of the relevant college or branch advisory body.

Overseas-trained doctor

A doctor who obtained their primary medical qualification in a country other than New Zealand.

Temporary registrant – not included in Medical Workforce survey

A doctor who practises in New Zealand under the category of temporary registration, for up to two years with a possible third year extension.

Workforce Information

For further information about the workforce survey data contact:

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