



# The New Zealand Medical Workforce in 2003

## Introduction

This report presents a summary of the most relevant results of the 2003 survey by the Medical Council of New Zealand. It follows the report *Medical Workforce in 2002*, which presented extensive information on changes in the medical workforce and trends 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 2002 by five percent to 8,790. Doctors voluntarily complete the workforce survey therefore this increase may be due in part to a two percent higher response rate than in 2002.

There was one active doctor to 456 persons in the NZ population but one full time equivalent position per 395 persons.

### **Demographics:**

**Age:** The mean age for all doctors remained 43 years and the median age rose from 42 in 2002 to 43.

**Gender:** The proportion of women doctors rose one percent to 35 percent of the workforce; remained 51 percent of house officers; rose one percent to 39 percent of GPs; and increased one percent to 30 percent of specialists (including GP's).

**Overseas doctors:** The proportion of overseas-trained doctors rose one percent to 34 percent; increased by two percent to 17 percent of house officers; rose by two percent to 37 percent of GPs; and remained at 36 percent for specialists (including GP's).

**Ethnicity:** The proportion of Maori doctors stayed the same at 2.7 percent, while Pacific Island doctors increased slightly to 1.1 percent. Maori continued to be markedly under-represented when compared to the percentage in the population. The mean age of Maori doctors was 39 and of Pacific Island doctors was 38 years.

For the purpose of this workforce report "specialist" refers to the doctor's work role, and is not synonymous with vocational registration which is not the same as vocational registration.

The data for the 2003 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 were November 2002, February 2003, May 2003 and August 2003 and are presented as at 31 March 2003.

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).

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 2003<sup>1</sup>. 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.

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<sup>1</sup> Statistics New Zealand : Estimated Resident Population as at 30 June 2003

## Results

### Response

During the 2003 workforce survey 10,099 survey forms were sent out to doctors with New Zealand addresses. Of these 9,600 doctors responded, giving a response rate of 95 percent. The results in this report include only the 8,790 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 has increased again in 2003 (Figure 1).

There was a jump in temporary registrants from 4.3 percent to 7.0 percent between 2000 and 2003. Following discussions with the Minister of Health Council policy changed in December 2000 to waive 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. This policy change may account for the increase in temporary registrants from 2001.

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

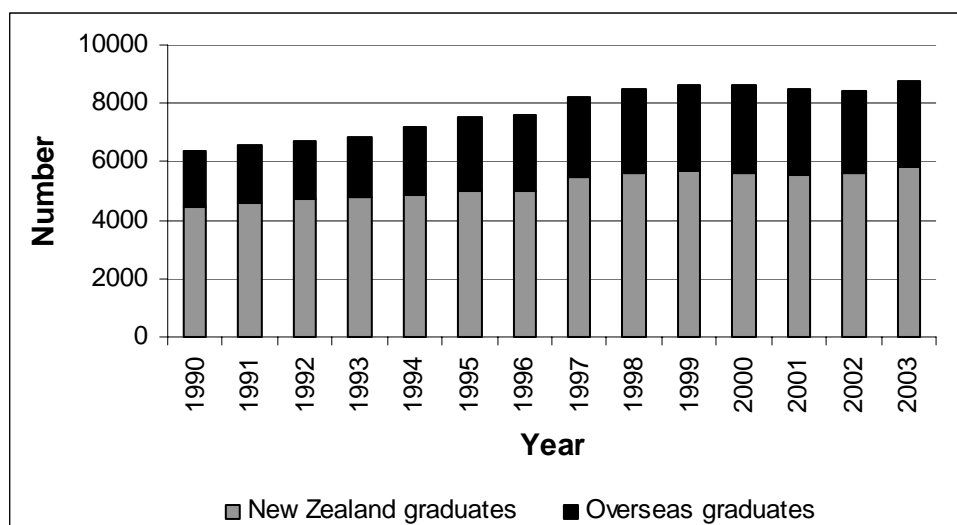
	1980	1985	1990	1995 <sup>2</sup>	1996	1997	1998	1999	2000	2001	2002	2003
<b>Growth per year:<sup>1</sup></b>												
1) measured by survey responses	-	-	-	4.9	1.4	7.7	3.2	1.5	0.0	-1.4	-1	4.6
2) measured by registration data	-	-	-	6.3	5.5	4.1	1.3	2.4	2.6	-2.5	7.6	2.9
Graduated from:												
New Zealand	3266	4095	4480	5024	5004	5449	5628	5693	5645	5567	5608	5796
Overseas	1615	1461	1859	2506	2630	2775	2863	2923	2970	2924	2795	2994
<b>Total workforce (survey response)</b>	<b>4881</b>	<b>5556</b>	<b>6339</b>	<b>7530</b>	<b>7634</b>	<b>8224</b>	<b>8491</b>	<b>8616</b>	<b>8615</b>	<b>8491</b>	<b>8403</b>	<b>8790</b>
% overseas trained	33.1	26.3	29.3	33.3	34.5	33.7	33.7	33.9	34.5	34.4	33.3	34.1
Temporary registrants <sup>3</sup>	-	-	165	129	-	328	351	370	421	646	789	758
Percent of workforce	-	-	2.5	1.7	-	3.8	3.8	3.9	4.3	6.6	7.4	7.0

1 Growth per year is the percentage change in total workforce year to year

2 Data are five-yearly up to 1995 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

**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 8,790 active doctors, up 4.6 percent from 2002.

**General practitioner** numbers increased by 3.1 percent but remain below the 2000 level.

**House Officers** have shown a steady increase over the last 3 years.

**Medical Officers:** 84 percent were not in vocational training; 83 percent listed public hospital as their main work place; 42 percent of medical officer FTE hours were spent on work type Emergency Medicine or Psychiatry. Medical officers were evenly represented with 50 percent overseas trained and 45 percent female.

**Primary care other than GP:** There was a large decrease of 16.9 percent which may possibly be attributed to doctors reclassifying themselves as GP's.

**Registrars:** There has been a steady year by year increase and when looked at with the specialist workforce represents a 5.8% increase in specialist workforce).

**Table 2: Changes in the medical workforce**

<b>Workforce Role</b>	<b>Active doctors <sup>1</sup> 1999</b>	<b>Active doctors <sup>1</sup> 2000</b>	<b>Active doctors <sup>1</sup> 2001</b>	<b>Active doctors <sup>1</sup> 2002</b>	<b>Active doctors <sup>1</sup> 2003</b>	<b>Percentage Change 2002 to 2003</b>
General practice	3,191	3,166	3,037	2,917	3,006	3.1
House officer	936	894	760	774	842	8.8
Medical officer	290	277	289	277	303	9.4
Primary care other than GP	166	190	171	166	138	-16.9
Registrar	1,167	1,227	1,242	1,238	1,319	6.5
Specialist	2,647	2,653	2,725	2,723	2,873	5.5
Other	217	206	233	252	244	-3.2
No Answer	*	*	34	56	65	16.1
<b>Total</b>	<b>8,616</b>	<b>8,615</b>	<b>8,491</b>	<b>8,403</b>	<b>8,790</b>	<b>4.6</b>

1 Headcount

### **Work type and postgraduate training**

The change in work type since 2002 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 accident and medical practice, family planning and reproductive health, medical administration, and palliative medicine.

There was a continued decrease in the number of doctors in primary care to 387 (down from 477 in 2002 and 697 in 2001). This may be explained by individuals redefining themselves as being involved in other vocational groups in 2003. In particular: accident and medical practice grew from 17 to 76; family planning and reproductive health grew from 4 to 20; and general practice grew from 2597 to 2715.

Other decreases that are of interest include: diagnostic and interventional radiology, down slightly (yet the breast screening programme is being extended and will be generating increasing demand); neurosurgery decreased 21 percent; paediatric surgery down 33 percent; and radiation oncology down 12 percent (cancer is a government priority area).

**Table 3: Vocational groups at main work site (house officers excluded)<sup>1</sup>**

Work type at main work site <sup>2</sup>	No. of doctors in main work site	Percent of total doctors	No. of doctors in main work site 2002	Percent change 2002 to 2003	Average hours worked (all sites) <sup>3</sup>	No. in vocational training <sup>4</sup>	Vocational registration current APC NZ address
Accident and medical practice	76	1	17	347	38	19	30
Anaesthesia	544	7	503	8	50	124	359
Basic Medical Science	28	0	32	-13	48	5	9
Breast medicine	11	0	8	38	31	4	5
Cardiothoracic surgery	24	0	25	-4	63	1	17
Dermatology	48	1	43	12	45	3	41
Diagnostic and interventional radiology	267	3	266	0	46	54	206
Emergency medicine	181	2	171	6	43	74	50
Family planning and reproductive health	20	0	4	400	26	4	10
General practice	2715	34	2597	5	41	507	1632
General surgery	238	3	240	-1	57	53	137
Intensive care medicine	30	0	28	7	54	7	16
Internal medicine	835	11	796	5	50	177	490
Medical administration	32	0	10	220	46	2	25
Musculoskeletal medicine	11	0	14	-21	48	2	9
Neurosurgery	15	0	19	-21	57	3	11
Obstetrics and gynaecology	233	3	219	6	51	33	166
Occupational medicine	58	1	57	2	43	8	44
Ophthalmology	106	1	103	3	46	13	84
Orthopaedic surgery	230	3	224	3	56	42	151
Otolaryngology head and neck surgery	84	1	86	-2	50	14	65
Paediatric surgery	10	0	15	-33	52	0	9
Paediatrics	272	3	254	7	49	72	151
Palliative medicine	30	0	5	500	37	1	21
Pathology	185	2	176	5	43	27	141
Plastic and reconstructive surgery	61	1	46	33	55	15	32
Primary Care	387	5	477	-19	40	55	237
Psychiatry	528	7	481	10	44	121	280
Public health medicine	204	3	200	2	43	32	128
Radiation oncology	37	0	42	-12	51	7	22
Rehabilitation medicine	14	0	16	-13	43	3	8
Sexual health medicine	23	0	22	5	27	4	12
Sports medicine	16	0	16	0	49	3	9
Surgery: Other	41	1	24	71	51	1	25
Urology	49	1	47	4	58	7	39
Vascular surgery	22	0	16	38	55	4	13
Not Answered	160	2	193	-17	46	45	62
Other	121	2	133	-9	38	8	77
<b>Grand Total</b>	<b>7946</b>	<b>100</b>	<b>7625</b>	<b>4</b>	<b>45</b>	<b>1554</b>	<b>4823</b>

<sup>1</sup> includes registrars, medical officers and others not on the vocational register

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

<sup>3</sup> totals exclude House Officer Rotation.

<sup>4</sup> the vocational training area may be different from the work type at the main work site

\* to prevent identification of individuals, categories which contain less than 4 doctors are omitted

## Hours worked

The mean hours per week worked for all active doctors was 46.2 hours. Table 4 shows mean hours were highest for doctors aged 24 years or younger at 56.7 hours per week.

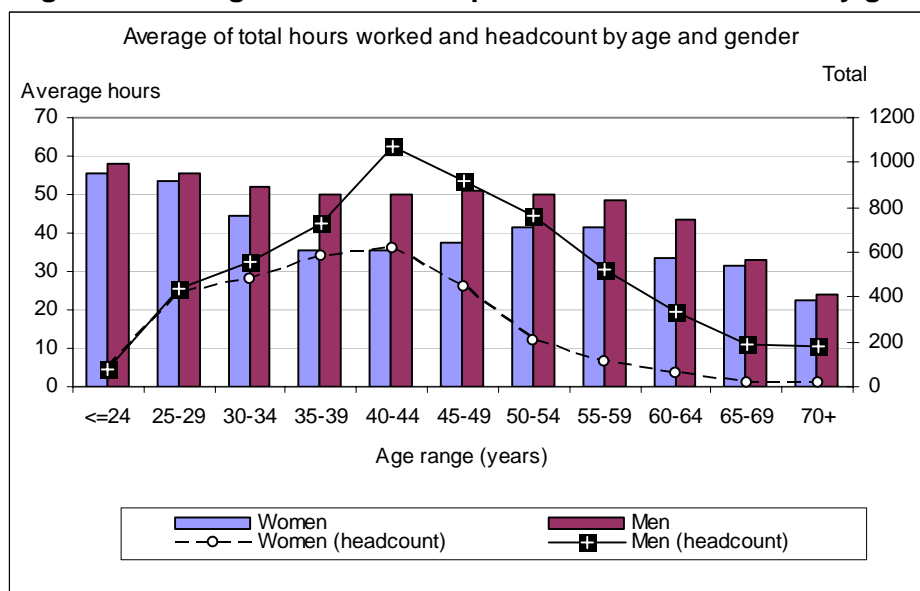
Women in their twenties were working an average of 54-56 hours per week, dropping to a low of 35 hours per week for women in the 35 to 44 age bracket. Figure 2 shows the average hours increased again to 42 hours for women in the 55-59 year range and declined thereafter.

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 41 percent more hours per week than women

The average hours worked overall per week dropped from 47.6 in 2002 to 46.2 in 2003. This information is self reported and not benchmarked against DHB employment data.

A count of all hours translated to 10,143 full time equivalent positions, considerably higher than the 8,790 active doctors working those hours. Further investigation into this difference is needed.

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



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

Average hours / week	Age Range											All ages, av hrs
Gender	<=24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	
Women	55.5	53.6	44.3	35.4	35.4	37.5	41.3	41.5	33.5	31.4	22.6	40.7
Men	58.1	55.4	52.0	50.0	50.2	50.8	50.2	48.4	43.7	33.0	24.1	49.0
Total	56.7	54.5	48.4	43.5	44.8	46.5	48.3	47.2	42.2	32.8	24.0	46.2

Headcount	Age Range											All ages, count
Gender	<=24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	
Women	83	424	478	582	616	444	208	110	57	21	13	3036
Men	74	435	556	726	1069	915	761	522	333	185	178	5754
Total	157	859	1034	1308	1685	1359	969	632	390	206	191	8790

## 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.

The differences were most marked in the specialist group in which 50 percent had 10-50 or more hours per week on call. Of the specialists with 10 or more hours on call 78 percent recorded a public hospital as their main place of work (Table 6).

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

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

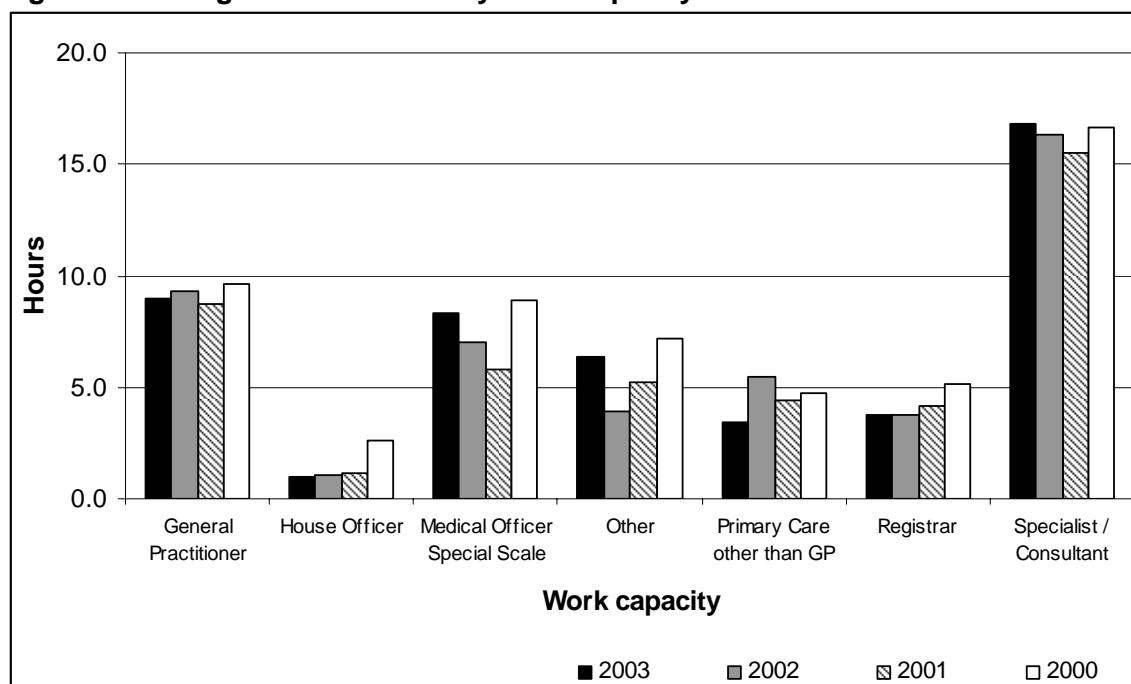
On-call hours grouped	Primary care other than GP						
	General practice	House Officer	Registrar	Medical officer	Specialist	Other	
No on-call hours	63	84	91	75	71	39	83
1 - 4	7	2	1	2	0	3	2
5 - 9	6	4	4	6	4	7	1
10 - 19	10	3	3	9	8	19	4
20 - 49	9	5	1	6	14	24	7
50 and more hours	5	1	0	1	4	7	4
<b>Total</b>	100	100	100	100	100	100	100

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

Main Employer	Specialist	Total all work roles
<b>Commercial Company</b>	27	43
<b>Government Department / Agency</b>	8	21
<b>Professional Body</b>	*	10
<b>Group Private Practice</b>	109	575
<b>Private Hospital</b>	20	28
<b>Public Hospital</b>	1143	1462
<b>Solo Private Practice</b>	108	288
<b>University / Polytechnic</b>	21	43
<b>No Answer</b>	4	18
<b>Other</b>	27	75
<b>Grand Total</b>	1470	2563



**Figure 3: Average on call<sup>1</sup> hours by work capacity**



<sup>1</sup> 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 61 per 100,000 population for the Counties-Manukau and region to 99 per 100,000 for Otago (Table 7).

Note that the big movement since 2002 in doctors per 100,000 in some places like Northland, Auckland, Taranaki, Wairarapa and Southland do not necessarily reflect large growth but may be due to more correct classification by DHB.

### Territorial Local Authorities

Territorial authorities with FTEs for general practice below 50 per 100,000 population were Kaipara, South Waikato, Western Bay of Plenty, Opotiki, Ruapehu, Taranaki, Horowhenua, Carterton, Westland, Waimakariri, McKenzie and Southland (Table 8).

Territorial authorities with more than 100 GP FTEs per 100,000 were Dunedin City, Far North, South Wairarapa and Hurunui, (Table 8).

All doctors working in the Kawerau and Buller districts qualified overseas, while all working in the McKenzie District qualified in New Zealand.

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

DHB locality	2003				2002
	Number of GPs	FTEs for GPs at all work sites	DHB locality population	FTEs for GPs per 100 000 population	FTEs for GPs per 100 000 population
Northland	116	131	146550	89	81
Waitemata	313	308	474700	65	65
Auckland	400	384	415300	92	86
Counties-Manukau	252	253	416100	61	63
Waikato <sup>1</sup>	243	262	340140	77	78
Bay of Plenty	138	135	189780	71	76
Lakes	73	73	100900	72	79
Tairāwhiti	28	32	45200	70	81
Hawkes Bay	103	111	148430	75	72
Taranaki	74	77	105820	72	64
Midcentral	95	107	153950	70	66
Wanganui	34	42	59000	71	78
Wairarapa	24	29	39260	73	67
Hutt	97	99	137700	72	69
Capital and Coast <sup>2</sup>	228	219	274600	80	81
Nelson-Marlborough	108	111	130900	85	86
West Coast	17	18	30750	60	63
Canterbury	381	384	430860	89	88
Otago	160	171	173750	99	86
South Canterbury	51	58	80280	72	75
Southland <sup>3</sup>	71	72	114500	63	68
<b>Total</b>	<b>3006</b>	<b>3075.1</b>	<b>4008470</b>	<b>77</b>	<b>76</b>

<sup>1</sup>Includes all TLA Ruapehu

<sup>2</sup>Includes all TLA Kapiti

<sup>3</sup>Includes all TLA Queenstown-Lakes

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

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

Site1 Territorial Authority <sup>1</sup>	No. of GPs	FTEs GPs	FTEs per 100 000	Ave hours GPs	No. of all doctors	No. of doctors per 100 000	O'seas doctors % of all	Territorial authority pop'n <sup>2</sup>
North Shore City	150	139	68	37	465	227	32	205,000
Waitakere City	110	108	58	39	153	82	35	185,600
Auckland City	400	384	92	38	1785	430	29	415,300
Manukau City	193	189	60	39	657	207	37	317,500
Hamilton City	116	119	95	41	568	454	41	125,000
Napier City	45	48	87	43	66	118	44	55,800
Palmerston North City	50	59	76	47	238	309	39	77,100
Porirua City	42	42	83	40	78	155	38	50,300
Upper Hutt City	32	33	86	41	33	87	33	37,800
Lower Hutt City	65	66	66	41	188	188	36	99,900
Wellington City	156	149	83	38	716	400	27	179,100
Nelson City	39	39	88	40	132	297	25	44,500
Christchurch City	325	325	96	40	1060	313	26	338,800
Dunedin City	118	122	101	41	469	387	30	121,200
Invercargill City	42	43	83	41	127	245	46	51,800
Far North District	51	61	107	48	61	107	54	57,100
Whangarei District	58	63	88	43	170	238	41	71,400
Kaipara District	7	7	38	39	8	44	63	18,050
Rodney District	53	61	73	46	61	73	33	84,100
Papakura District	29	31	72	43	37	86	27	43,100
Franklin District	30	33	60	44	32	58	56	55,500

Thames									
Coromandel District	23	25	94	43	34	129	65	26,300	
Hauraki District	11	11	67	41	13	76	46	17,000	
Waikato District	23	27	64	47	26	62	50	42,100	
Matamata-Piako District	17	21	68	48	18	59	61	30,300	
Waipa District	29	31	73	43	30	71	57	42,400	
Otorohanga District	4	6	60	57	4	42	25	9,540	
South Waikato District	12	12	49	38	13	55	46	23,600	
Waitomo District	6	7	70	45	8	82	63	9,700	
Taupo District	21	22	67	42	27	81	44	33,300	
Western BOP District	17	19	48	46	17	42	29	40,700	
Tauranga District	87	82	84	38	260	264	29	98,500	
Rotorua District	52	50	75	39	144	213	36	67,600	
Whakatane District	27	26	76	39	52	153	67	34,000	
Kawerau District	5	5	76	43	6	86	100	7,000	
Opotiki District	*	*	16	31	*	21	50	9,580	
Gisborne District	28	32	70	45	69	153	48	45,200	
New Plymouth District	53	53	76	40	154	223	38	69,100	
Stratford District	5	7	81	57	6	68	50	8,820	
South Taranaki District	16	17	60	42	17	61	76	27,900	
Ruapehu District	*	5	34	64	6	42	50	14,200	
Wairoa District	4	6	63	56	4	45	75	8,880	
Hastings District	45	48	69	43	152	215	29	70,600	
Cent. HB District	9	8	63	37	9	68	56	13,150	
Wanganui District	24	29	66	48	86	196	63	43,900	
Rangitikei District	9	12	77	52	9	60	44	15,100	
Manawatu District	21	21	74	40	29	102	38	28,300	
Tararua District	8	8	47	42	9	50	67	17,950	
Horowhenua District	8	10	34	52	15	49	67	30,600	
Kapiti Coast District	38	37	82	39	41	91	44	45,200	
Masterton District	13	16	68	49	40	172	53	23,300	
Carterton District	*	*	42	40	*	42	67	7,100	
South Wairarapa District	8	10	112	50	8	90	75	8,860	
Tasman District	35	36	80	41	38	85	53	44,700	
Marlborough District	34	36	87	43	58	139	36	41,700	
Kaikoura District	*	*	69	50	*	83	67	3,610	
Buller District	5	7	72	56	5	51	100	9,720	
Grey District	9	8	62	36	22	168	55	13,100	
Westland District	*	*	43	45	4	50	75	7,930	
Hurunui District	11	12	115	44	17	163	59	10,450	
Waimakariri District	17	18	46	43	17	43	18	39,800	
Banks Peninsula District	6	7	81	45	6	73	50	8,200	
Selwyn District	20	20	66	39	22	73	36	30,000	
Ashburton District	18	21	78	46	26	98	38	26,500	
Timaru District	29	32	76	45	67	156	31	42,900	
Mackenzie District	*	*	13	20	*	27	0	3,760	
Waimate District	*	4	56	53	*	42	67	7,120	
Waitaki District	13	16	79	49	16	79	44	20,200	
Cent. Otago District	12	14	95	47	17	114	29	14,950	
Queenstown-Lakes District	20	19	93	38	23	111	26	20,700	
Clutha District	12	15	85	49	14	80	43	17,400	
Southland District	7	7	23	39	7	24	71	29,400	
Gore District	7	8	60	43	9	71	56	12,600	
<b>Total</b>	<b>3,006</b>	<b>3,075</b>	<b>77</b>	<b>41</b>	<b>8,790</b>	<b>219</b>	<b>34</b>	<b>4,008,470</b>	

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

<sup>2</sup> Statistics NZ, Estimated Resident Population as at 30 June 2003

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

## Ethnicity

Doctors who identified as Maori remained at 2.7 percent and Pacific Island increased to the 2001 level of 1.1 percent. (Table 9). Table 10 shows the areas where Maori doctors were working. Those doctors identifying themselves as Chinese have been consistently rising each year and are now at 5.4 percent. The biggest increase is in those identifying as 'other'. The number of NZ European/Pakeha graduates has decreased significantly since 2000.

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.

**Table 9: Ethnicity**

Ethnicity	%	%	%	%	Average age	
					Females	Males
New Zealand Maori	2.7	2.7	2.6	2.3	36	41
Pacific Island	1.1	1.0	1.1	1.1	37	38
Chinese	5.4	5.1	4.8	4.5	32	39
Indian	4.9	4.8	4.8	4.5	40	44
Other	9.1	10.0	8.7	7.6	40	45
Other European <sup>1</sup>	14.6	12.8			42	45
NZ European / Pakeha	60.0	61.8	76.5	76.5	40	47
No answer	1.8	1.6	1.5	3.2	39	45
Refused	0.3	0.2	0.0	0.2	-	-
Total	100.0	100.0	100.0	100.0	39	45

<sup>1</sup> 2002 first year of reporting "Other European" category

**Table 10: Distribution of Maori doctors by DHB**

DHB	Percent
Auckland	22.8
Canterbury	10.4
Counties-Manukau	9.5
Waitemata	7.9
Bay of Plenty	7.5
Capital and Coast	7.5
Waikato	6.6
Otago	3.3
Hawkes Bay	3.3
Midcentral	3.3
Tairāwhiti	2.5
Hutt	2.5
Lakes	2.5
Northland	2.1
Taranaki	2.1
Nelson-Marlborough	2.1
Southland	1.7
Other (South Canterbury, Wairarapa, West Coast, Wanganui)	2.5

## Distribution by gender

**Vocational trainees:** All vocational trainees in breast medicine, family planning and reproductive health, palliative medicine, and sexual health medicine were women, and there were no women working or training in the vocational branches of musculoskeletal medicine, neurosurgery or vascular surgery. There were other large gender imbalances for vocational training in obstetrics and gynaecology and urology. Of those participating in vocational training for surgical branches, less than one third were women. (Table 11)

**Work Role:** The overall proportion of women in the workforce rose to 35 percent. Of those in house officer roles 51 percent were women. The distributions of women per work role were: general practitioner 39 percent, primary care 38 percent, medical officer 45 percent, registrar 40 percent and specialist 30 percent (Table 12).

**Work types,** or vocational branches, where woman outnumbered men were breast medicine, family planning and reproductive health (which had all women in 2002 but 67 percent in 2003) and sexual health medicine. Table 12 illustrates that women are making steady progress in other specialties including intensive care medicine, obstetrics and gynaecology, pathology and public health medicine.

**Table 11: Vocational training branch by gender**

Vocational training area <sup>1</sup>	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	10	24	34	29	1	3
Anaesthesia	42	85	127	33	6	10
Breast medicine	4	0	4	100	1	0
Cardiothoracic surgery	*	*	*	33	0	0
Dermatology	*	*	*	50	0	0
Diagnostic and interventional radiology	17	38	55	31	2	4
Emergency medicine	32	57	89	36	5	7
Family planning and reproductive health	*	0	*	100	0	0
General practice	294	266	560	53	42	31
General surgery	14	45	59	24	2	5
Intensive care medicine	*	*	4	25	0	0
Internal medicine	65	107	172	38	9	12
Medical administration	*	*	*	33	0	0
Musculoskeletal medicine	0	*	*	0	0	0
Neurosurgery	0	*	*	0	0	0
Obstetrics and gynaecology	28	7	35	80	4	1
Occupational medicine	0	8	8	0	0	1
Ophthalmology	4	9	13	31	1	1
Orthopaedic surgery	6	36	42	14	1	4
Otolaryngology head and neck surgery	0	12	12	0	0	1
Paediatrics	51	26	77	66	7	3
Palliative medicine	*	0	*	100	0	0
Pathology	16	15	31	52	2	2
Plastic and reconstructive surgery	*	12	15	20	0	1
Psychiatry	58	65	123	47	8	8

Public health medicine	21	9	30	70	3	1
Radiation oncology	7	6	13	54	1	1
Rehabilitation medicine	*	*	4	50	0	0
Sexual health medicine	4	0	4	100	1	0
Sports medicine	*	*	5	40	0	0
Surgery: other	0	*	*	0	0	0
Urology	*	6	7	14	0	1
Vascular surgery	0	*	*	0	0	0
Not answered	4	*	7	57	1	0
Other	*	4	5	20	0	0
<b>Total</b>	<b>694</b>	<b>860</b>	<b>1554</b>	<b>45</b>	<b>100</b>	<b>100</b>

1 House Officers excluded

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

### Overseas trained doctors

In 2003 the number of doctors working in New Zealand who obtained their primary medical qualification in another country increased to the 2001 level of 34 percent after a slight dip in 2002.

The medical officer work role had the highest proportion of overseas trained doctors at 50 percent. Of specialists, palliative medicine and accident and medical practice had more than 50 percent overseas trained doctors, while all specialists in family planning and reproductive health, and sports medicine were New Zealand trained.

**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	2001	2002	2003	1980	1990	2001	2002	2003	2002	2003
House Officer	32	44	48	51	51	27	21	21	15	17	28	29
Registrar	23	29	38	39	40	42	22	35	32	33	33	34
Medical officer	38	32	42	46	45	52	50	54	55	50	45	46
Primary care other than GP	49	42	39	41	38	42	39	31	31	22	44	44
Other	46	25	36	35	37	43	32	24	23	27	48	47

#### Specialists and GPs (role)

Accident and medical practice*	-	-	-	40	39	-	-	-	40	57	47	43
Anaesthesia	19	16	20	20	22	41	39	46	45	42	48	47
Basic Medical Science	12	16	29	0	13	31	42	35	18	25	57	51
Breast medicine	3	-	75	100	100	-	-	0	25	33	42	43
Cardiothoracic surgery	-	-	6	0	6	-	-	44	41	44	49	48
Dermatology	8	17	24	26	23	30	20	24	21	26	47	49
Diagnostic and interventional radiology	-	14	24	24	25	24	27	37	32	33	48	48
Emergency medicine	13	0	18	26	24	-	50	55	38	37	40	41
Family planning and reproductive health*	-	-	-	100	67	-	-	-	100	0	38	46
General practice	4	24	38	38	39	35	30	35	35	37	45	46
General surgery	-	-	3	6	4	-	-	31	33	37	50	50
Intensive care medicine	10	-	8	11	22	-	-	33	17	28	47	42
Internal medicine	-	7	14	16	16	24	34	31	34	34	49	49
Medical administration*	-	-	-	0	15	-	-	-	33	46	56	53
Musculoskeletal medicine	6	-	0	10	0	-	-	40	30	33	55	57
Neurosurgery	-	-	8	0	0	-	-	46	42	45	50	53
Obstetrics and gynaecology	21	17	29	32	35	24	28	46	49	47	49	48
Occupational medicine	15	5	16	14	16	-	41	38	31	32	50	49
Ophthalmology	0	11	10	14	13	18	16	21	21	24	49	49
Orthopaedic surgery	-	-	3	3	4	-	-	12	14	15	49	49

Otolaryngology head and neck surgery	0	2	4	3	3	31	24	27	26	29	49	50
Paediatric surgery	-	-	21	31	22	-	-	43	31	33	48	45
Paediatrics	19	23	28	29	26	38	39	32	35	33	47	47
Palliative medicine*				60	47				80	74	49	49
Pathology	12	22	26	29	34	21	26	38	40	39	49	49
Plastic and reconstructive surgery	-	-	3	7	8	-	-	22	17	24	50	49
Primary Care	-	-	31	33	35	0	-	35	38	35	48	47
Psychiatry	-	28	34	33	35	41	50	56	55	53	49	48
Public health medicine	-	23	27	32	37	44	36	26	23	25	48	48
Radiation oncology	-	5	19	20	16	-	55	65	68	60	46	46
Rehabilitation medicine	-	-	0	0	0	-	-	40	80	57	49	50
Sexual health medicine	17	-	57	67	80	33	50	43	33	50	44	44
Sports medicine	-	-	14	20	13	-	-	0	10	0	47	42
Surgery: all ex otolar (80,90) <sup>1</sup>	0	1	-	-	-	20	23	-	-	-	-	-
Surgery: Other	-	-	7	0	9	-	-	24	26	21	47	47
Urology	-	-	3	3	3	-	-	17	19	21	49	49
Vascular surgery	-	-	0	8	0	-	-	17	17	15	44	53
Not Answered	-	-	-	29	12	-	-	-	36	49	49	51
Other	-	-	-	24	17	-	-	-	35	29	50	59
<b>Specialists and GPs</b>	-	-	29	29	30	-	-	36	36	36	47	47
<b>All the above groups</b>	<b>16</b>	<b>24</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>34</b>	<b>29</b>	<b>34</b>	<b>33</b>	<b>34</b>	<b>43</b>	<b>43</b>

<sup>1</sup> All surgical sub specialities except otolaryngology were combined in 1980 and 1990 data

<sup>2</sup> "Specialists and GPs" excludes "Not Answered" and "Other"

<sup>3</sup> "All the above groups" excludes "Not Answered"

\* Vocational branches new in 2002

- Data not available

## Graduate Retention

A review of graduate retention statistics in Table 13 since the introduction of the Medical Practitioners Act in 1995 indicates that by the third year after graduation approximately 20 percent of doctors from a graduate year will be lost. Figure 4 shows that after this third year retention appears to stabilise at between 70-80 percent of the original graduate class. Retention at year one is continuing to decline slowly but steadily. There has been little change in retention trends in the last 9 years.

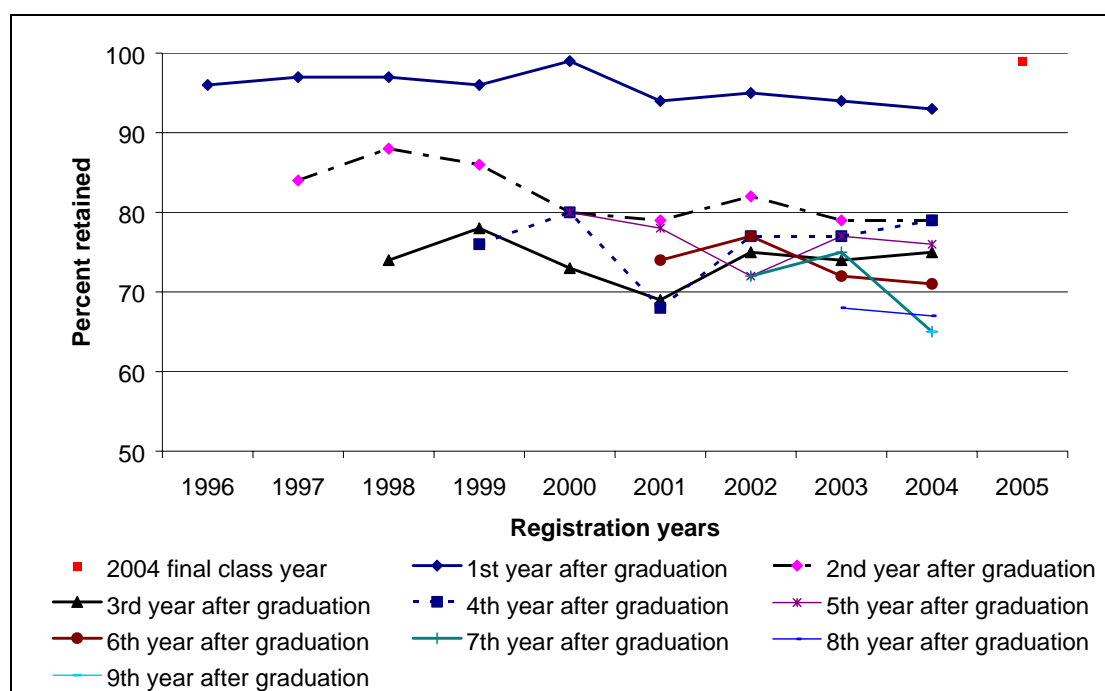
There are no firm statistics about what medical graduates do if they do not register to do their intern year in New Zealand. Figures do include fee paying students and the initial drop in retention may possibly be attributed to these graduates returning to their sponsoring countries. Others do their internship overseas and some have the year off.

**Table 13 : Graduate retention**

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

## Acknowledgements

The Medical Council thanks the practitioners who completed the workforce survey.

## 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. 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. Generally understood to require membership of the relevant specialist college but self-reporting leads to broader usage in survey results. Does not include general practitioners, although both GPs and specialists are eligible for vocational registration.

**Vocational registration**

A general practitioner 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**

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