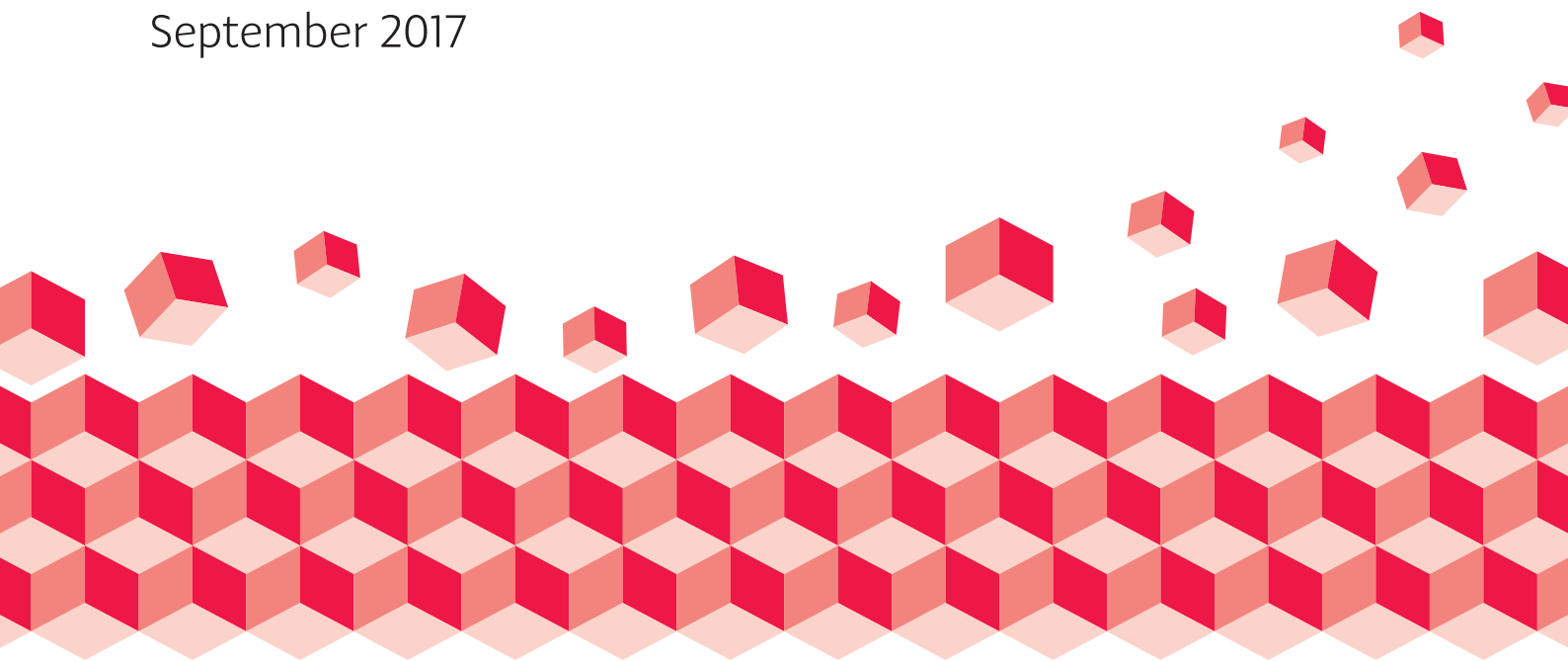


# National report on students commencing medical school in New Zealand in 2013-2015

September 2017



**Prepared by:**

The New Zealand MSOD Steering Group.

**University of Otago:**

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Division of Health Sciences  
*Te Wāhanga Mātau Hauora*



**MEDICAL AND  
HEALTH SCIENCES**

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OTAGO MEDICAL SCHOOL  
*Te Kura Hauora o Ōtākou*



**MEDICAL AND  
HEALTH SCIENCES**

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## 1. Introduction

The Medical Schools Outcomes Database and Longitudinal Tracking Project (MSOD) is an on-going collaborative longitudinal study that is conducted by Medical Deans Australia and New Zealand (MDANZ). The project has been operating since 2005.

Data are collected directly from students at entry to medical school/programme (Year 2 in NZ), through the Commencing Medical Students Questionnaire (CMSQ); at the end of their final year of medical school, through the Exit Questionnaire (EQ); and one, three, and five year(s) after completion of their medical studies (PGY1, PGY3, PGY5).

Information on student placements and electives is collected directly from medical schools throughout the duration of the programme. In coming years, data will also be collected at eight years after completion of medical studies. The purpose is to gain better understanding of the factors that influence career choices throughout the continuum of training. Such questions will be answerable once the longitudinal data collection has followed enough students into their early postgraduate years where they make career choices.

This report presents summary and trend data from the 2013-2015 CMSQ for University of Auckland and University of Otago medical students.

## 2. Method

At the commencement of their medical programme, students were invited to participate in the MSOD CMSQ survey. University of Otago students completed on-line questionnaires, and University of Auckland students, a paper version. The two sets of data from each year were combined to form national data sets.

Individual reports have been produced for each of 2013-2015. This is the first cumulative report.

### 2.1. Questionnaire

The 22-question CMSQ gathers student information about basic demographic details, enrolment characteristics, previous tertiary education and plans for the future. The majority of the questions are quantitative, with one qualitative question relating to partner occupation.

In 2013 students were asked to indicate their *primary* source of income supporting their studies; this changed in 2014, when students were asked to indicate their all sources of income supporting their studies (refer **Table 27** and **Table 28**). *Radiation Oncology* and *Sport and Exercise Medicine* were added to the set of career choices in 2014 and 2015 (refer **Table 39** to **Table 45**).

Otherwise the questionnaires were stable throughout this reporting period.

### 2.2. Response rate

Over the three-year period a total of 1,632 medical students commenced medical school in New Zealand; 1,503 completed a CMSQ. This is an overall response rate of 92%.

**Table 1.** Response rate by university of students completing study (pool) and CMSQs

Medical School/ Programme	Pool 2013	Qs 2013	% 2013	Pool 2014	Qs 2014	% 2014	Pool 2015	Qs 2015	% 2015	Pool total	Qs total	% total
University of Auckland	247	243	98.4%	254	252	99.2%	270	270	100%	771	765	99.2%
University of Otago	281	264	94.0%	289	248	85.8%	291	226	77.7%	861	738	85.7%
<b>Total</b>	<b>528</b>	<b>507</b>	<b>96.0%</b>	<b>543</b>	<b>500</b>	<b>92.1%</b>	<b>561</b>	<b>496</b>	<b>88.4%</b>	<b>1,632</b>	<b>1,503</b>	<b>92.1%</b>

**Table 2.** Number of respondents by university

Medical School/Programme	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
University of Auckland	243	47.9%	252	50.4%	270	54.4%	765	50.9%
University of Otago	264	52.1%	248	49.6%	226	45.6%	738	49.1%
<b>Total</b>	<b>507</b>	<b>100.0%</b>	<b>500</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>1,503</b>	<b>100.0%</b>

Base: all respondents

### 3. Results

#### 3.1. Respondents characteristics

More respondents in each year were female (57%) than were male (43%).

**Table 3.** Gender of respondents

Gender	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Female	287	56.6%	283	56.6%	283	57.1%	853	56.8%
Male	220	43.4%	217	43.4%	213	42.9%	650	43.2%
<b>Total</b>	<b>507</b>	<b>100.0%</b>	<b>500</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>1,503</b>	<b>100.0%</b>

*Base: all respondents*

Respondent ages, as calculated at 1 January in the year surveyed, were grouped into five-year age ranges; the results are presented in **Table 4**.

**Table 4.** Age range of respondents

Age group	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
under 20 years	316	62.3%	318	64.0%	305	61.9%	939	62.7%
20-24 years	142	28.0%	134	27.0%	144	29.2%	420	28.1%
25-29 years	35	6.9%	30	6.0%	29	5.9%	94	6.3%
30-34 years	9	1.8%	10	2.0%	9	1.8%	28	1.9%
35 years and over	5	1.0%	5	1.0%	6	1.2%	16	1.1%
<b>Total responses</b>	<b>507</b>	<b>100.0%</b>	<b>497</b>	<b>100.0%</b>	<b>493</b>	<b>100.0%</b>	<b>1,497</b>	<b>100.0%</b>
Missing	0		3		3		6	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

Respondents were asked to indicate which ethnic group(s) they belonged to. In the three-year period, twelve percent of respondents identified as Māori and 6% as Pacific people.

**Table 5.** Ethnicity of respondents

Ethnicity	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
New Zealand European	288	56.8%	275	55.0%	300	60.5%	863	57.4%
Māori	58	11.4%	63	12.6%	60	12.1%	181	12.0%
Pacific peoples	40	7.8%	35	7.0%	18	3.6%	93	6.2%
Other	213	42.0%	216	43.2%	192	38.7%	621	41.3%

*Base: all respondents*

*Percentages total more than 100% as multiple responses were accepted*

### 3.2. Marital status and dependents

The majority of respondents indicated they were *single* or *in a relationship but not living with partner*.

**Table 6.** Marital status of respondents

Marital status	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Single	417	82.6%	396	79.8%	383	78.0%	1,196	80.2%
In a relationship but not living with partner	59	11.7%	66	13.3%	74	15.1%	199	13.3%
Living with partner	15	3.0%	21	4.2%	27	5.5%	63	4.2%
Married	11	2.2%	12	2.4%	6	1.2%	29	1.9%
Separated	1	0.2%	–	–	–	–	1	0.1%
Divorced	2	0.4%	1	0.2%	1	0.2%	4	0.3%
<b>Total responses</b>	<b>505</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>491</b>	<b>100.0%</b>	<b>1,492</b>	<b>100.0%</b>
Missing	2		4		5		11	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

Ninety-nine percent of respondents reported having no children under the age of 16 (**Table 7**); a similar proportion reported having no other dependents (**Table 8**).

**Table 7.** Number of children reported by respondents

Number of children	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
0	499	98.4%	474	98.8%	485	98.6%	1,458	98.6%
1	6	1.2%	3	0.6%	3	0.6%	12	0.8%
2 or more	2	0.4%	3	0.6%	4	0.8%	9	0.6%
<b>Total responses</b>	<b>507</b>	<b>100.0%</b>	<b>480</b>	<b>100.0%</b>	<b>492</b>	<b>100.0%</b>	<b>1,479</b>	<b>100.0%</b>
Missing	0		20		4		24	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*



**Table 8.** Number of dependents reported by respondents

Number of dependents	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
0	498	98.2%	479	99.8%	481	98.6%	1,458	98.8%
1	5	1.0%	1	0.2%	5	1.0%	11	0.7%
2 or more	4	0.8%	–	–	2	0.4%	6	0.4%
<b>Total responses</b>	<b>507</b>	<b>100.0%</b>	<b>480</b>	<b>100.0%</b>	<b>488</b>	<b>100.0%</b>	<b>1,475</b>	<b>100.0%</b>
Missing	0		20		8		28	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

### 3.3. Respondents background

Most respondents (92%) were New Zealand citizens or were New Zealand Permanent Residents.

**Table 9.** Citizenship of respondents

Citizenship	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
New Zealand citizen	444	87.6%	420	84.7%	434	87.9%	1,298	86.7%
New Zealand Permanent Resident	23	4.5%	34	6.9%	29	5.9%	86	5.7%
Australian citizen	3	0.6%	5	1.0%	2	0.4%	10	0.7%
Student Visa holder	33	6.5%	35	7.1%	27	5.5%	95	6.3%
Other	4	0.8%	2	0.4%	2	0.4%	8	0.5%
<b>Total responses</b>	<b>507</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>494</b>	<b>100.0%</b>	<b>1,497</b>	<b>100.0%</b>
Missing	0		4		2		6	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

Sixty-two percent of all respondents reported being born in New Zealand. Of domestic students not born in New Zealand, South Korea (14%), China (12%), and England (11%) were consistently the top three overseas countries of birth (**Table 11**). Malaysia (27%) and Brunei Darussalam (19%) were predominant among the countries of birth for international students (**Table 12**).

**Table 10.** Country of birth

Country of birth	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
New Zealand	316	62.7%	291	58.7%	314	63.6%	921	61.6%
Country other than NZ	188	37.3%	205	41.3%	180	36.4%	573	38.4%
<b>Total responses</b>	<b>504</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>494</b>	<b>100.0%</b>	<b>1,494</b>	<b>100.0%</b>
Missing	3		4		2		9	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 11.** Overseas country of birth of domestic students

Country of birth	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
South Korea	21	14.5%	23	13.6%	21	13.9%	65	14.0%
China (not SARs or Taiwan)	17	11.7%	19	11.2%	19	12.6%	55	11.8%
England	17	11.7%	17	10.1%	16	10.6%	50	10.8%
India	13	9.0%	14	8.3%	13	8.6%	40	8.6%
South Africa	–	–	12	7.1%	–	–	12	2.6%
Australia	–	–	10	5.9%	13	8.6%	23	4.9%
Other countries (n<10)	77	53.1%	74	43.8%	69	45.7%	220	47.3%
<b>Total responses</b>	<b>145</b>	<b>100.0%</b>	<b>169</b>	<b>100.0%</b>	<b>151</b>	<b>100.0%</b>	<b>465</b>	<b>100.0%</b>
Missing	0		2		0		2	
<b>Total</b>	<b>145</b>		<b>171</b>		<b>151</b>		<b>467</b>	

*Base: domestic students*

**Table 12.** Overseas country of birth of international students

Country of birth	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Malaysia	13	34.2%	14	40.0%	–	–	27	27.0%
Brunei Darussalam	8	21.1%	6	17.1%	5	18.5%	19	19.0%
Oman	–	–	–	–	5	18.5%	5	5.0%
Other countries (n<5 each)	17	44.7%	15	42.9%	17	63.0%	49	49.0%
<b>Total</b>	<b>38</b>	<b>100.0%</b>	<b>35</b>	<b>100.0%</b>	<b>27</b>	<b>100.0%</b>	<b>100</b>	<b>100.0%</b>

*Base: international students*

Over a third of respondents (36%) reported speaking at least one language other than English in the home. Of the primary non-English language, nearly a third (31%) were Chinese languages; 15% were Korean (Table 14).

**Table 13.** Language(s) spoken, other than English

	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Yes	182	36.5%	191	38.6%	161	32.8%	534	36.0%
No	317	63.5%	304	61.4%	330	67.2%	951	64.0%
<b>Total responses</b>	<b>499</b>	<b>100.0%</b>	<b>495</b>	<b>100.0%</b>	<b>491</b>	<b>100.0%</b>	<b>1,485</b>	<b>100.0%</b>
Missing	8		5		5		18	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 14.** Primary language spoken, other than English

Primary language	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Mandarin	32	17.6%	27	14.3%	30	19.2%	89	16.9%
Korean	29	15.9%	23	12.2%	26	16.7%	78	14.8%
Chinese, not elsewhere classified	17	9.3%	18	9.5%	14	9.0%	49	9.3%
Malay	15	8.2%	16	8.5%	–	–	31	5.9%
Arabic	10	5.5%	–	–	10	6.4%	20	3.8%
Cantonese	10	5.5%	15	7.9%	–	–	25	4.7%
Tamil	–	–	10	5.3%	–	–	10	1.9%
Other (n<10)	69	37.9%	80	42.3%	76	53.9%	225	42.7%
<b>Total responses</b>	<b>182</b>	<b>100.0%</b>	<b>189</b>	<b>100.0%</b>	<b>156</b>	<b>100.0%</b>	<b>527</b>	<b>100.0%</b>
Missing	0		2		5		7	
<b>Total</b>	<b>182</b>		<b>191</b>		<b>161</b>		<b>534</b>	

*Base: respondents speaking a language other than English*

Among respondents who completed secondary school in New Zealand, 42% attended schools in the Auckland region, 13% attended schools in Canterbury, and 10% in the Wellington region.

**Table 15.** Geographic region of secondary school attended in New Zealand

	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Northland	11	2.5%	12	2.8%	21	4.8%	44	3.4%
Auckland	171	39.6%	186	43.0%	189	42.9%	546	41.8%
Waikato/Taupo	34	7.9%	32	7.4%	36	8.2%	102	7.8%
Bay of Plenty	8	1.9%	16	3.7%	11	2.5%	35	2.7%
Gisborne	3	0.7%	5	1.2%	1	0.2%	9	0.7%
Manawatu/Whanganui	22	5.1%	29	6.7%	14	3.2%	65	5.0%
Hawkes Bay	9	2.1%	12	2.8%	24	5.4%	45	3.4%
Taranaki	8	1.9%	5	1.2%	5	1.1%	17	1.3%
Wellington region	45	10.4%	45	10.4%	47	10.7%	137	10.5%
Westland	1	0.2%	2	0.5%	–	–	3	0.2%
Marlborough	5	1.2%	2	0.5%	1	0.2%	8	0.6%
Tasman	5	1.2%	1	0.2%	3	0.7%	9	0.7%
Nelson	10	2.3%	7	1.6%	8	1.8%	25	1.9%
Canterbury	75	17.4%	49	11.3%	50	11.3%	174	13.3%
Otago	18	4.2%	19	4.4%	20	4.5%	57	4.4%
Southland	6	1.4%	8	1.8%	1	0.2%	15	1.1%
Correspondence School	1	0.2%	1	0.2%	–	–	2	0.2%
Home schooled	–	–	–	–	1	0.2%	1	0.1%
Unknown	–	–	2	0.5%	9	2.0%	11	0.8%
<b>Total responses</b>	<b>432</b>	<b>100.0%</b>	<b>433</b>	<b>100.0%</b>	<b>441</b>	<b>100.0%</b>	<b>1,306</b>	<b>100.0%</b>
Missing	10		4		1		15	
<b>Total</b>	<b>442</b>		<b>437</b>		<b>442</b>		<b>1,321</b>	

*Base: respondents completing secondary school in New Zealand*

### 3.4. Rural background

Respondents were asked to identify the population density of the location in which they had lived longest within New Zealand. Seventy-four percent of respondents reported having lived longest in a major city. Between birth and 18 years of age, 37% of respondents reported living outside of a major city for at least one year, and 22% for 13 or more years (**Table 17**).

**Table 16.** Geographic location of longest residency within New Zealand

Geographic location	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Major city (pop. over 100,000)	420	83.8%	341	69.0%	342	69.8%	1,103	74.3%
Regional centre (pop. 25,000 – 100,000)	20	4.0%	75	15.2%	59	12.0%	154	10.4%
Town (pop. 10,000 – 24,999)	17	3.4%	30	6.1%	56	11.4%	103	6.9%
Small community (pop. under 10,000)	33	6.6%	40	8.1%	26	5.3%	99	6.7%
Not applicable, have lived in NZ < 12 months	11	2.2%	8	1.6%	7	1.4%	26	1.8%
<b>Total responses</b>	<b>501</b>	<b>100.0%</b>	<b>494</b>	<b>100.0%</b>	<b>490</b>	<b>100.0%</b>	<b>1,485</b>	<b>100.0%</b>
Missing	6		6		6		18	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

Base: all respondents

**Table 17.** Total number of years spent outside a major New Zealand city

Number of years between 0-18 years	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
0 years	311	63.5%	313	62.9%	314	63.4%	938	63.3%
1-3 years	18	3.7%	26	5.2%	23	4.6%	67	4.5%
4-6 years	17	3.5%	20	4.0%	19	3.8%	56	3.8%
7-9 years	11	2.2%	9	1.8%	16	3.2%	36	2.4%
10-12 years	21	4.3%	21	4.2%	22	4.4%	64	4.3%
13 or more years	112	22.9%	109	21.9%	101	20.4%	322	21.7%
<b>Total responses</b>	<b>490</b>	<b>100.0%</b>	<b>498</b>	<b>100.0%</b>	<b>495</b>	<b>100.0%</b>	<b>1,483</b>	<b>100.0%</b>
Missing	17		2		1		20	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

Base: all respondents

A quarter (25%) respondents identified as being from a rural background: 32% of whom had lived the longest in a major city; as compared to 90% of those from non-rural backgrounds (**Table 19, Table 20**).

**Table 18.** Self-perception of rural background

<b>Rural background</b>	<b>n</b> <b>2013</b>	<b>%</b> <b>2013</b>	<b>n</b> <b>2014</b>	<b>%</b> <b>2014</b>	<b>n</b> <b>2015</b>	<b>%</b> <b>2015</b>	<b>n</b> <b>total</b>	<b>%</b> <b>total</b>
Yes	118	24.3%	120	24.8%	120	24.9%	358	24.7%
No	367	75.7%	364	75.2%	361	75.1%	1,092	75.3%
<b>Total responses</b>	<b>485</b>	<b>100.0%</b>	<b>484</b>	<b>100.0%</b>	<b>481</b>	<b>100.0%</b>	<b>1,450</b>	<b>100.0%</b>
Missing	22		16		15		53	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 19.** Geographic location of longest residency within New Zealand: rural respondents

<b>Geographic location</b>	<b>n</b> <b>2013</b>	<b>%</b> <b>2013</b>	<b>n</b> <b>2014</b>	<b>%</b> <b>2014</b>	<b>n</b> <b>2015</b>	<b>%</b> <b>2015</b>	<b>n</b> <b>total</b>	<b>%</b> <b>total</b>
Major city	63	54.3%	23	20.0%	25	21.4%	111	31.9%
Regional centre	11	9.5%	31	27.0%	26	22.2%	68	19.5%
Town	14	12.1%	26	22.6%	19	16.2%	59	17.0%
Small community	28	24.1%	35	30.4%	47	40.2%	110	31.6%
<b>Total responses</b>	<b>116</b>	<b>100.0%</b>	<b>115</b>	<b>100.0%</b>	<b>117</b>	<b>100.0%</b>	<b>348</b>	<b>100.0%</b>
Missing, have lived in NZ under 12 months	2		5		3		10	
<b>Total</b>	<b>118</b>		<b>120</b>		<b>120</b>		<b>358</b>	

*Base: all respondents identifying as rural*

**Table 20.** Geographic location of longest residency within New Zealand: non-rural respondents

<b>Geographic location</b>	<b>n</b> <b>2013</b>	<b>%</b> <b>2013</b>	<b>n</b> <b>2014</b>	<b>%</b> <b>2014</b>	<b>n</b> <b>2015</b>	<b>%</b> <b>2015</b>	<b>n</b> <b>total</b>	<b>%</b> <b>total</b>
Major city	344	96.1%	307	85.8%	307	87.0%	958	89.6%
Regional centre	9	2.5%	42	11.7%	31	8.8%	82	7.7%
Town	2	0.6%	6	1.7%	6	1.7%	14	1.3%
Small community	3	0.8%	4	1.1%	9	2.5%	16	1.5%
<b>Total responses</b>	<b>358</b>	<b>100.0%</b>	<b>358</b>	<b>100.0%</b>	<b>353</b>	<b>100.0%</b>	<b>1,069</b>	<b>100.0%</b>
Missing, have lived in NZ under 12 months	9		6		8		23	
<b>Total</b>	<b>367</b>		<b>364</b>		<b>361</b>		<b>1,092</b>	

*Base: all respondents identifying as non-rural*

### 3.5. Admission and previous tertiary education

Ninety-three percent of respondents were domestic students.

**Table 21.** Class of university admission

Admission class	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Domestic student	454	92.1%	460	92.9%	464	94.5%	1,378	93.2%
International student	39	7.9%	35	7.1%	27	5.5%	101	6.8%
<b>Total responses</b>	<b>493</b>	<b>100.0%</b>	<b>495</b>	<b>100.0%</b>	<b>491</b>	<b>100.0%</b>	<b>1,479</b>	<b>100.0%</b>
Missing	14		5		5		24	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

Twenty-five percent of respondents reported having scholarships. Of students' primary scholarships, 52% were identified as New Zealand University scholarships and 18% as New Zealand Government scholarships.

**Table 22.** Respondents receiving scholarships

Scholarship	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Yes	156	30.8%	119	23.8%	105	21.2%	380	25.3%
No	351	69.2%	381	76.2%	391	78.8%	1,123	74.7%
<b>Total</b>	<b>507</b>	<b>100.0%</b>	<b>500</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>1,503</b>	<b>100.0%</b>

*Base: all respondents*

**Table 23.** Source of primary scholarship supporting study

Scholarship	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
New Zealand University scholarship	75	48.1%	62	52.1%	61	58.1%	198	52.1%
New Zealand Government scholarship	28	17.9%	24	20.2%	18	17.1%	70	18.4%
Home country scholarships to international students	26	16.7%	20	16.8%	11	10.5%	57	15.0%
Independent scholarship	19	12.2%	10	8.4%	13	12.4%	42	11.1%
Other/ unnamed	8	5.1%	3	2.5%	2	1.9%	13	3.4%
<b>Total</b>	<b>156</b>	<b>100.0%</b>	<b>119</b>	<b>100.0%</b>	<b>105</b>	<b>100.0%</b>	<b>380</b>	<b>100.0%</b>

*Base: respondents receiving a scholarship*



Twenty-nine percent of respondents reported having at least one tertiary qualification; the highest of these qualifications were predominantly Bachelor (67%) and Honours (11%) degrees.

The disciplines of these highest tertiary qualifications were Science (40%), Medical Sciences (30%) and Health/Allied Health (17%) (Table 26).

**Table 24.** Respondents with tertiary qualifications

Tertiary qualifications	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Yes	152	30.0%	141	28.2%	147	29.6%	440	29.3%
No	355	70.0%	359	71.8%	349	70.4%	1,063	70.7%
<b>Total</b>	<b>507</b>	<b>100.0%</b>	<b>500</b>	<b>100.0%</b>	<b>496</b>	<b>100.0%</b>	<b>1,503</b>	<b>100.0%</b>

*Base: all respondents*

**Table 25.** Highest tertiary qualification

Qualification	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Associate degree	–	–	3	2.1%	–	–	3	0.7%
Bachelors degree	90	59.2%	99	70.2%	105	71.4%	294	66.8%
Honours degree	18	11.8%	12	8.5%	20	13.6%	50	11.4%
Postgraduate Diploma/ Certificate	13	8.6%	7	5.0%	9	6.1%	29	6.6%
Masters degree	16	10.5%	11	7.8%	10	6.8%	37	8.4%
PhD	7	4.6%	8	5.7%	3	2.0%	18	4.1%
Other	8	5.3%	1	0.7%	–	–	9	2.0%
<b>Total</b>	<b>152</b>	<b>100.0%</b>	<b>141</b>	<b>100.0%</b>	<b>147</b>	<b>100.0%</b>	<b>440</b>	<b>100.0%</b>

*Base: respondents with a tertiary qualification*

**Table 26.** Discipline of highest tertiary qualification

Discipline	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Science	53	34.9%	58	41.1%	64	43.5%	175	39.8%
Medical Science	40	26.3%	46	32.6%	47	32.0%	133	30.2%
Health/Allied Health	37	24.3%	19	13.5%	20	13.6%	76	17.3%
Humanities	8	5.3%	5	3.5%	12	8.2%	25	5.7%
Commerce/Business/Law	6	3.9%	3	2.1%	3	2.0%	12	2.7%
Physical Sciences	6	3.9%	3	2.1%	1	0.7%	10	2.3%
Unspecified	2	1.3%	7	5.0%	–	–	9	2.0%
<b>Total</b>	<b>152</b>	<b>100.0%</b>	<b>141</b>	<b>100.0%</b>	<b>147</b>	<b>100.0%</b>	<b>440</b>	<b>100.0%</b>

*Base: respondents with a tertiary qualification*

In 2013 students were asked to indicate their *primary* source of income supporting their studies; this changed in 2014, when students were asked to indicate their all sources of income supporting their studies.

In 2015 and 2015, the majority of respondents reported they received financial support from New Zealand Government Student Loans (79%) and/or from family (60%). Students were also supported by paid employment (43%), other forms of Government assistance (32%) and by scholarships (27%). Eighty-two percent of respondents indicated receiving more than one source of income support (Table 28).

**Table 27.** Source(s) of income supporting study

Income source	n 2014	% 2014	n 2015	% 2015	n total	% total
NZ Government Student Loan	390	78.0%	394	79.4%	784	78.7%
Supported by family	293	58.6%	302	60.9%	595	59.7%
Paid employment	206	41.2%	222	44.8%	428	43.0%
NZ Government assistance	173	34.6%	141	28.4%	314	31.5%
Scholarship	138	27.6%	130	26.2%	268	26.9%
Savings/trust fund	88	17.6%	111	22.4%	199	20.0%
Personal loan	9	1.8%	9	1.8%	18	1.8%
Other	1	0.2%	1	0.2%	2	0.2%

*Base: all respondents*

*Percentages total more than 100% as multiple responses were accepted*

**Table 28.** Number of source(s) of income supporting study

No. income source	n 2014	% 2014	n 2015	% 2015	n total	% total
1	97	19.4%	81	16.4%	178	17.9%
2	148	29.6%	147	29.8%	295	29.7%
3	143	28.6%	166	33.6%	309	31.1%
4	88	17.6%	68	13.8%	156	15.7%
5	20	4.0%	27	5.5%	47	4.7%
6	4	0.8%	5	1.0%	9	0.9%
<b>Total responses</b>	<b>500</b>	<b>100.0%</b>	<b>494</b>	<b>100.0%</b>	<b>994</b>	<b>100.0%</b>
Missing	0		2		2	
<b>Total</b>	<b>500</b>		<b>496</b>		<b>996</b>	

*Base: all respondents*

### 3.6. Future medical practice

Overall, 87% of respondents indicated a first preference to practise in New Zealand; this proportion being greater (89%) for domestic respondents than for international respondents (56%) (Table 30, Table 31).

**Table 29.** First preference of country of future practice

Country	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Within New Zealand	420	83.3%	425	86.7%	438	89.9%	1,283	86.6%
Country other than NZ	84	16.7%	65	13.3%	49	10.1%	198	13.4%
<b>Total responses</b>	<b>504</b>	<b>100.0%</b>	<b>490</b>	<b>100.0%</b>	<b>487</b>	<b>100.0%</b>	<b>1,481</b>	<b>100.0%</b>
Missing	3		5		4		12	
<b>Total</b>	<b>507</b>		<b>495</b>		<b>491</b>		<b>1,493</b>	

*Base: respondents answering the question on admission category*

**Table 30.** First preference of country of future practice: domestic students

Country	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Within New Zealand	385	85.4%	407	89.3%	421	91.5%	1,213	88.7%
Country other than NZ	66	14.6%	49	10.7%	39	8.5%	154	11.3%
<b>Total responses</b>	<b>451</b>	<b>100.0%</b>	<b>456</b>	<b>100.0%</b>	<b>460</b>	<b>100.0%</b>	<b>1,367</b>	<b>100.0%</b>
Missing	3		4		4		11	
<b>Total</b>	<b>454</b>		<b>460</b>		<b>464</b>		<b>1,378</b>	

*Base: respondents answering the question on admission category*

**Table 31.** First preference of country of future practice: international students

Country	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Within New Zealand	21	53.8%	18	52.9%	17	63.0%	56	56.0%
Country other than NZ	18	46.2%	16	47.1%	10	37.0%	44	44.0%
<b>Total responses</b>	<b>39</b>	<b>100.0%</b>	<b>34</b>	<b>100.0%</b>	<b>27</b>	<b>100.0%</b>	<b>100</b>	<b>100.0%</b>
Missing	0		1		–	–	1	
<b>Total</b>	<b>39</b>		<b>35</b>		<b>27</b>		<b>101</b>	

*Base: respondents answering the question on admission category*

Respondents consistently and increasingly indicated their greatest preference for Auckland (41%) as a region in which to practice within New Zealand, followed by Wellington (12%) and Canterbury (7%).

The Wellington region was the top second preference within New Zealand (18%), followed by Auckland (16%) and Otago (10%). Those who indicated a third preference preferred the Wellington region (17%), Auckland (10%) and Otago (9%) as a region of future practice in New Zealand.

Of those indicating a preference, *a country other than New Zealand* was selected by 13%, 15% and 23% of respondents as their first, second and third preference respectively.

Westland was the least favoured region of future practice, selected by less than 1% of respondents, followed by Marlborough and Tasman.

**Table 32.** First preference for region of future practice

Region	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Northland	14	2.8%	23	4.6%	25	5.1%	62	4.2%
Auckland	191	37.9%	200	40.4%	213	43.5%	604	40.6%
Waikato/Taupo	22	4.4%	22	4.4%	25	5.1%	69	4.6%
Bay of Plenty	19	3.8%	21	4.2%	18	3.7%	58	3.9%
Gisborne	5	1.0%	4	0.8%	4	0.8%	13	0.9%
Manawatu/Whanganui	4	0.8%	6	1.2%	6	1.2%	16	1.1%
Hawkes Bay	7	1.4%	9	1.8%	16	3.3%	32	2.1%
Taranaki	4	0.8%	3	0.6%	4	0.8%	11	0.7%
Wellington region	59	11.7%	60	12.1%	59	12.0%	178	12.0%
Westland	–	–	1	0.2%	1	0.2%	2	0.1%
Marlborough	–	–	3	0.6%	1	0.2%	4	0.3%
Tasman	1	0.2%	1	0.2%	3	0.6%	5	0.3%
Nelson	8	1.6%	10	2.0%	5	1.0%	23	1.5%
Canterbury	49	9.7%	32	6.5%	33	6.7%	114	7.7%
Otago	34	6.7%	28	5.7%	25	5.1%	87	5.8%
Southland	3	0.6%	5	1.0%	2	0.4%	10	0.7%
Country other than NZ	84	16.7%	67	13.5%	50	10.2%	201	13.5%
<b>Total responses</b>	<b>504</b>	<b>100.0%</b>	<b>495</b>	<b>100.0%</b>	<b>490</b>	<b>100.0%</b>	<b>1,489</b>	<b>100.0%</b>
Missing	3		5		6		14	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 33.** Second preference for region of future practice

Region	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Northland	27	5.6%	29	6.1%	43	9.0%	99	6.9%
Auckland	76	15.8%	77	16.1%	75	15.7%	228	15.9%
Waikato/Taupo	37	7.7%	36	7.5%	35	7.3%	108	7.5%
Bay of Plenty	22	4.6%	35	7.3%	23	4.8%	80	5.6%
Gisborne	8	1.7%	7	1.5%	4	0.8%	19	1.3%
Manawatu/Whanganui	8	1.7%	10	2.1%	6	1.3%	24	1.7%
Hawkes Bay	15	3.1%	11	2.3%	25	5.2%	51	3.6%
Taranaki	4	0.8%	6	1.3%	7	1.5%	17	1.2%
Wellington region	85	17.7%	82	17.2%	91	19.0%	258	18.0%
Westland	1	0.2%	3	0.6%	3	0.6%	7	0.5%
Marlborough	2	0.4%	6	1.3%	6	1.3%	14	1.0%
Tasman	3	0.6%	–	–	3	0.6%	6	0.4%
Nelson	17	3.5%	13	2.7%	19	4.0%	49	3.4%
Canterbury	39	8.1%	40	8.4%	29	6.1%	108	7.5%
Otago	54	11.3%	44	9.2%	39	8.2%	137	9.5%
Southland	1	0.2%	3	0.6%	4	0.8%	8	0.6%
Country other than NZ	81	16.9%	75	15.7%	66	13.8%	222	15.5%
<b>Total responses</b>	<b>480</b>	<b>100.0%</b>	<b>477</b>	<b>100.0%</b>	<b>478</b>	<b>100.0%</b>	<b>1,435</b>	<b>100.0%</b>
Missing	27		23		18		68	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 34.** Third preference for region of future practice

Region	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Northland	21	4.6%	18	4.0%	31	7.0%	70	5.2%
Auckland	45	9.8%	49	10.8%	45	10.2%	139	10.2%
Waikato/Taupo	28	6.1%	23	5.1%	26	5.9%	77	5.7%
Bay of Plenty	31	6.7%	22	4.8%	31	7.0%	84	6.2%
Gisborne	10	2.2%	5	1.1%	6	1.4%	21	1.5%
Manawatu/Whanganui	5	1.1%	9	2.0%	3	0.7%	17	1.3%
Hawkes Bay	9	2.0%	15	3.3%	14	3.2%	38	2.8%
Taranaki	4	0.9%	6	1.3%	6	1.4%	16	1.2%
Wellington region	67	14.6%	86	18.9%	78	17.6%	231	17.0%
Westland	6	1.3%	2	0.4%	2	0.5%	10	0.7%
Marlborough	10	2.2%	3	0.7%	5	1.1%	18	1.3%
Tasman	4	0.9%	1	0.2%	2	0.5%	7	0.5%
Nelson	22	4.8%	14	3.1%	23	5.2%	59	4.3%
Canterbury	41	8.9%	34	7.5%	37	8.4%	112	8.3%
Otago	37	8.0%	44	9.7%	42	9.5%	123	9.1%
Southland	9	2.0%	8	1.8%	4	0.9%	21	1.5%
Country other than NZ	111	24.1%	115	25.3%	88	19.9%	314	23.1%
<b>Total responses</b>	<b>460</b>	<b>100.0%</b>	<b>454</b>	<b>100.0%</b>	<b>443</b>	<b>100.0%</b>	<b>1,357</b>	<b>100.0%</b>
Missing	47		41		53		141	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

The majority of respondents chose a major city as their preferred geographical location of future medical practice (70%), with 18% preferring to work in a regional centre.

Thirty-one percent of respondents who considered themselves to be from a rural background reported that their preferred location of future practice was outside a major city or regional centre, compared with 6% of respondents who did not consider themselves to be from a rural background (Table 36, Table 37).

**Table 35.** Preferred population centre size of future practice

Geographic location	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Major city (pop. over 100,000)	350	72.2%	323	68.1%	325	68.3%	998	69.5%
Regional centre (pop. 25,000 – 100,000)	82	16.9%	93	19.6%	87	18.3%	262	18.3%
Town (pop. 10,000 – 24,999)	30	6.2%	24	5.1%	44	9.2%	98	6.8%
Small community (pop. under 10,000)	23	4.7%	34	7.2%	20	4.2%	77	5.4%
<b>Total responses</b>	<b>485</b>	<b>100.0%</b>	<b>474</b>	<b>100.0%</b>	<b>476</b>	<b>100.0%</b>	<b>1,435</b>	<b>100.0%</b>
Missing, not intending to work in NZ	22		26		20		68	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 36.** Preferred population centre size of future practice: rural respondents

Geographic location	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Major city	41	36.3%	47	40.2%	49	41.9%	137	39.5%
Regional centre	32	28.3%	39	33.3%	32	27.4%	103	29.7%
Town	22	19.5%	16	13.7%	19	16.2%	57	16.4%
Small community	18	15.9%	15	12.8%	17	14.5%	50	14.4%
<b>Total responses</b>	<b>113</b>	<b>100.0%</b>	<b>117</b>	<b>100.0%</b>	<b>117</b>	<b>100.0%</b>	<b>347</b>	<b>100.0%</b>
Missing, not intending to work in NZ	5		3		3		11	
<b>Total</b>	<b>118</b>		<b>120</b>		<b>120</b>		<b>358</b>	

*Base: all respondents identifying as rural*

**Table 37.** Preferred population centre size of future practice: non-rural respondents

Geographic location	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Major city	291	82.7%	267	77.4%	266	77.1%	824	79.1%
Regional centre	49	13.9%	51	14.8%	53	15.4%	153	14.7%
Town	7	2.0%	8	2.3%	23	6.7%	38	3.6%
Small community	5	1.4%	19	5.5%	3	0.9%	27	2.6%
<b>Total responses</b>	<b>352</b>	<b>100%</b>	<b>345</b>	<b>100.0%</b>	<b>345</b>	<b>100.0%</b>	<b>1,042</b>	<b>100.0%</b>
Missing, not intending to work in NZ	15		19		16		50	
<b>Total</b>	<b>367</b>		<b>364</b>		<b>361</b>		<b>1,092</b>	

Base: all respondents identifying as non-rural

Respondents who had decided on their area of specialisation were asked to identify their preferred speciality; if they had not decided on their area of specialisation they were asked to rank up to three preferred areas of interest. *Radiation Oncology* and *Sport and Exercise Medicine* were added to the set of career choices surveyed in 2014 and 2015 (refer **Table 39** to **Table 45**).

Only a quarter (25%) of respondents stated that they had decided their specialty preference. Surgery (26%), Paediatrics and Child Health (16%) and General Practice (13%) were consistently the most preferred areas of specialisation (**Table 39**). These specialties were the top preferences whether respondents had, or had not, decided on an area of specialisation (**Table 42, Table 43**).

**Table 38.** Decided on specialisation

Decided	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Yes	113	22.3%	127	25.7%	131	26.5%	371	24.8%
No	394	77.7%	367	74.3%	363	73.5%	1,124	75.2%
<b>Total responses</b>	<b>507</b>	<b>100.0%</b>	<b>494</b>	<b>100.0%</b>	<b>494</b>	<b>100.0%</b>	<b>1,495</b>	<b>100.0%</b>
Missing	0		6		2		8	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

Base: all respondents



**Table 39.** First preference of specialisation for all respondents

Area of medicine	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Addiction Medicine	–	–	1	0.2%	1	0.2%	2	0.1%
Adult / Internal Medicine	40	8.9%	15	3.3%	19	4.1%	74	5.4%
Anaesthesia	9	2.0%	21	4.7%	16	3.5%	46	3.4%
Dermatology	8	1.8%	11	2.4%	10	2.2%	29	2.1%
Emergency Medicine	44	9.8%	41	9.1%	41	8.9%	126	9.3%
General Practice	56	12.5%	59	13.1%	67	14.5%	182	13.4%
Indigenous Health	1	0.2%	3	0.7%	5	1.1%	9	0.7%
Intensive Care Medicine	6	1.3%	3	0.7%	4	0.9%	13	1.0%
Medical Administration	3	0.7%	–	–	1	0.2%	4	0.3%
Non-specialist Hospital Practice	3	0.7%	1	0.2%	–	–	4	0.3%
Obstetrics and Gynaecology	16	3.6%	19	4.2%	24	5.2%	59	4.3%
Occupational Medicine	1	0.2%	1	0.2%	–	–	2	0.1%
Ophthalmology	13	2.9%	7	1.6%	7	1.5%	27	2.0%
Oral and Maxillofacial Surgery	2	0.4%	2	0.4%	–	–	4	0.3%
Paediatrics and Child Health	71	15.8%	71	15.7%	71	15.4%	213	15.6%
Pain Medicine	–	–	2	0.4%			2	0.1%
Palliative Medicine	1	0.2%	2	0.4%	2	0.4%	5	0.4%
Pathology	8	1.8%	3	0.7%	8	1.7%	19	1.4%
Psychiatry	19	4.2%	25	5.5%	13	2.8%	57	4.2%
Public Health Medicine	9	2.0%	8	1.8%	5	1.1%	22	1.6%
Radiation Oncology	*		2	0.4%	7	1.5%	9	0.7%
Radiology	7	1.6%	5	1.1%	5	1.1%	17	1.2%
Rehabilitation medicine	2	0.4%	1	0.2%	1	0.2%	4	0.3%
Rural and Remote Medicine	3	0.7%	1	0.2%	8	1.7%	12	0.9%
Sexual Health Medicine	–	–	2	0.4%	–	–	2	0.1%
Sports & Exercise Medicine	*		12	2.7%	9	1.9%	21	1.5%
Surgery	113	25.2%	116	25.7%	122	26.4%	351	25.8%
Other	14	3.1%	17	3.8%	16	3.5%	47	3.5%
<b>Total responses</b>	<b>449</b>	<b>100.0%</b>	<b>451</b>	<b>100.0%</b>	<b>462</b>	<b>100.0%</b>	<b>1,362</b>	<b>100.0%</b>
Missing	58		49		34		141	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

Base: all respondents

\*was not an option for 2013 respondents

**Table 40.** Second preference of specialisation for **all** respondents

Area of medicine	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Addiction Medicine	3	0.8%	4	1.3%	1	0.3%	8	0.8%
Adult / Internal Medicine	14	3.9%	14	4.4%	8	2.5%	36	3.6%
Anaesthesia	25	7.0%	14	4.4%	27	8.3%	66	6.6%
Dermatology	9	2.5%	11	3.4%	16	4.9%	36	3.6%
Emergency Medicine	42	11.8%	37	11.6%	48	14.7%	127	12.7%
General Practice	50	14.1%	31	9.7%	33	10.1%	114	11.4%
Indigenous Health	7	2.0%	5	1.6%	4	1.2%	16	1.6%
Intensive Care Medicine	17	4.8%	15	4.7%	6	1.8%	38	3.8%
Medical Administration	2	0.6%	3	0.9%	4	1.2%	9	0.9%
Non-specialist Hospital Practice	2	0.6%	1	0.3%	–	–	3	0.3%
Obstetrics and Gynaecology	19	5.4%	23	7.2%	18	5.5%	60	6.0%
Occupational Medicine	1	0.3%	–	–	–	–	1	0.1%
Ophthalmology	7	2.0%	6	1.9%	7	2.1%	20	2.0%
Oral and Maxillofacial Surgery	2	0.6%	2	0.6%	1	0.3%	5	0.5%
Paediatrics and Child Health	46	13.0%	40	12.5%	34	10.4%	120	12.0%
Pain Medicine	1	0.3%	1	0.3%	–	–	2	0.2%
Palliative Medicine	2	0.6%	2	0.6%	2	0.6%	6	0.6%
Pathology	12	3.4%	4	1.3%	4	1.2%	20	2.0%
Psychiatry	15	4.2%	12	3.8%	17	5.2%	44	4.4%
Public Health Medicine	5	1.4%	11	3.4%	10	3.1%	26	2.6%
Radiation Oncology	*		5	1.6%	7	2.1%	12	1.2%
Radiology	7	2.0%	6	1.9%	5	1.5%	18	1.8%
Rehabilitation medicine	1	0.3%	1	0.3%	1	0.3%	3	0.3%
Rural and Remote Medicine	4	1.1%	5	1.6%	9	2.8%	18	1.8%
Sexual Health Medicine	3	0.8%	2	0.6%	–	–	5	0.5%
Sports & Exercise Medicine	*		16	5.0%	12	3.7%	28	2.8%
Surgery	55	15.5%	40	12.5%	44	13.5%	139	13.9%
Other	4	1.1%	9	2.8%	8	2.5%	21	2.1%
<b>Total responses</b>	<b>355</b>	<b>100.0%</b>	<b>320</b>	<b>100.0%</b>	<b>326</b>	<b>100.0%</b>	<b>1,001</b>	<b>100.0%</b>
Missing	152		180		170		502	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

Base: all respondents

\*was not an option for 2013 respondents

**Table 41.** Third preference of specialisation for **all** respondents

Area of medicine	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Addiction Medicine	2	0.6%	–	–	1	0.3%	3	0.3%
Adult / Internal Medicine	16	4.6%	12	3.8%	15	4.7%	43	4.4%
Anaesthesia	18	5.1%	19	6.1%	17	5.3%	54	5.5%
Dermatology	9	2.6%	14	4.5%	8	2.5%	31	3.2%
Emergency Medicine	41	11.7%	21	6.7%	44	13.8%	106	10.8%
General Practice	63	18.0%	44	14.1%	55	17.2%	162	16.5%
Indigenous Health	7	2.0%	3	1.0%	4	1.3%	14	1.4%
Intensive Care Medicine	9	2.6%	4	1.3%	10	3.1%	23	2.3%
Medical Administration	6	1.7%	5	1.6%	3	0.9%	14	1.4%
Non-specialist Hospital Practice	7	2.0%	6	1.9%	2	0.6%	15	1.5%
Obstetrics and Gynaecology	18	5.1%	17	5.4%	8	2.5%	43	4.4%
Occupational Medicine	1	0.3%	1	0.3%	–	–	2	0.2%
Ophthalmology	9	2.6%	8	2.6%	8	2.5%	25	2.5%
Oral and Maxillofacial Surgery	4	1.1%	3	1.0%	3	0.9%	10	1.0%
Paediatrics and Child Health	34	9.7%	27	8.7%	25	7.8%	86	8.8%
Pain Medicine	2	0.6%	2	0.6%	–	–	4	0.4%
Palliative Medicine	5	1.4%	2	0.6%	3	0.9%	10	1.0%
Pathology	10	2.9%	9	2.9%	7	2.2%	26	2.6%
Psychiatry	19	5.4%	15	4.8%	11	3.4%	45	4.6%
Public Health Medicine	10	2.9%	18	5.8%	5	1.6%	33	3.4%
Radiation Oncology	*		9	2.9%	12	3.8%	21	2.1%
Radiology	5	1.4%	5	1.6%	10	3.1%	20	2.0%
Rehabilitation medicine	6	1.7%	4	1.3%	1	0.3%	11	1.1%
Rural and Remote Medicine	11	3.1%	8	2.6%	13	4.1%	32	3.3%
Sexual Health Medicine	1	0.3%	2	0.6%	3	0.9%	6	0.6%
Sports & Exercise Medicine	*		17	5.4%	12	3.8%	29	3.0%
Surgery	35	10.0%	29	9.3%	34	10.6%	98	6.5%
Other	2	0.6%	8	2.6%	6	1.9%	16	1.6%
<b>Total responses</b>	<b>350</b>	<b>100.0%</b>	<b>312</b>	<b>100.0%</b>	<b>320</b>	<b>100.0%</b>	<b>982</b>	<b>100.0%</b>
Missing	157		188		176		521	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

Base: all respondents

\*was not an option for 2013 respondents

**Table 42.** Specialisation preference of respondents who **had decided** on their speciality

Area of medicine	n 2013	% 2013	n 2014	% 2014	n 2015	% 2015	n total	% total
Addiction Medicine	–	–	1	0.8%	–	–	1	0.3%
Adult / Internal Medicine	9	8.0%	1	0.8%	3	2.3%	13	3.5%
Anaesthesia	–	–	3	2.4%	2	1.5%	5	1.4%
Dermatology	1	0.9%	3	2.4%	4	3.1%	8	2.2%
Emergency Medicine	11	9.7%	7	5.6%	11	8.5%	29	7.9%
General Practice	15	13.3%	12	9.5%	19	14.6%	46	12.5%
Indigenous Health	–	–	–	–	1	0.8%	1	0.3%
Non-specialist Hospital Practice	1	0.9%	1	0.8%	–	–	2	0.5%
Obstetrics and Gynaecology	4	3.5%	9	7.1%	6	4.6%	19	5.1%
Ophthalmology	2	1.8%	3	2.4%	–	–	5	1.4%
Paediatrics and Child Health	19	16.8%	21	16.7%	18	13.8%	58	15.7%
Pain Medicine	–	–	1	0.8%	–	–	1	0.3%
Palliative Medicine	–	–	1	0.8%	–	–	1	0.3%
Pathology	–	–	–	–	2	1.5%	2	0.5%
Psychiatry	4	3.5%	12	9.5%	5	3.8%	21	5.7%
Public Health Medicine	4	3.5%	3	2.4%	1	0.8%	8	2.2%
Radiology	1	0.9%	–	–	1	0.8%	2	0.5%
Rural and Remote Medicine	1	0.9%	–	–	3	2.3%	4	1.1%
Sports & Exercise Medicine	*		1	0.8%	3	2.3%	4	1.1%
Surgery	30	26.5%	39	31.0%	44	33.8%	113	30.6%
Other	11	9.7%	8	6.3%	7	5.4%	26	7.0%
<b>Total responses</b>	<b>113</b>	<b>100.0%</b>	<b>126</b>	<b>100.0%</b>	<b>130</b>	<b>100.0%</b>	<b>369</b>	<b>100.0%</b>
Missing	0		1		1		2	
<b>Total</b>	<b>113</b>		<b>127</b>		<b>131</b>		<b>371</b>	

*Base: respondents who had decided on their speciality*

*\*was not an option for 2013 respondents*

**Table 43.** First preference in specialisation of respondents who **had not decided** on their speciality

Area of medicine	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Addiction Medicine	–	–	–	–	1	0.3%	1	0.1%
Adult / Internal Medicine	31	9.2%	14	4.3%	16	4.8%	61	6.1%
Anaesthesia	9	2.7%	18	5.5%	14	4.2%	41	4.1%
Dermatology	7	2.1%	8	2.5%	6	1.8%	21	2.1%
Emergency Medicine	33	9.8%	34	10.5%	30	9.0%	97	9.8%
General Practice	41	12.2%	47	14.5%	48	14.5%	136	13.7%
Indigenous Health	1	0.3%	3	0.9%	4	1.2%	8	0.8%
Intensive Care Medicine	6	1.8%	3	0.9%	4	1.2%	13	1.3%
Medical Administration	3	0.9%	–	–	1	0.3%	4	0.4%
Non-specialist Hospital Practice	2	0.6%	–	–	–	–	2	0.2%
Obstetrics and Gynaecology	12	3.6%	10	3.1%	18	5.4%	40	4.0%
Occupational and Environmental Medicine	1	0.3%	1	0.3%	–	–	2	0.2%
Ophthalmology	11	3.3%	4	1.2%	7	2.1%	22	2.2%
Oral and Maxillofacial Surgery	2	0.6%	2	0.6%	–	–	4	0.4%
Paediatrics and Child Health	52	15.5%	50	15.4%	53	16.0%	155	15.6%
Pain Medicine	–	–	1	0.3%			1	0.1%
Palliative Medicine	1	0.3%	1	0.3%	2	0.6%	4	0.4%
Pathology	8	2.4%	3	0.9%	6	1.8%	17	1.7%
Psychiatry	15	4.5%	13	4.0%	8	2.4%	36	3.6%
Public Health Medicine	5	1.5%	5	1.5%	4	1.2%	14	1.4%
Radiation Oncology	*		2	0.6%	6	1.8%	8	0.8%
Radiology	6	1.8%	5	1.5%	5	1.5%	16	1.6%
Rehabilitation Medicine	2	0.6%	1	0.3%	1	0.3%	4	0.4%
Rural and Remote Medicine	2	0.6%	1	0.3%	5	1.5%	8	0.8%
Sexual Health Medicine	–	–	2	0.6%	–	–	2	0.2%
Sports & Exercise Medicine	*		11	3.4%	6	1.8%	17	1.7%
Surgery	83	24.7%	77	23.7%	78	23.5%	238	24.0%
Other	3	0.9%	9	2.8%	9	2.7%	21	2.1%
<b>Total responses</b>	<b>336</b>	<b>100.0%</b>	<b>325</b>	<b>100.0%</b>	<b>332</b>	<b>100.0%</b>	<b>993</b>	<b>100.0%</b>
Missing	58		42		31		131	
<b>Total</b>	<b>394</b>		<b>367</b>		<b>363</b>		<b>1,124</b>	

Base: respondents who had **not** decided on their speciality

\*was not an option for 2013 respondents

**Table 44.** Second preference in specialisation of respondents who **had not decided** on their specialty

Area of medicine	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Addiction Medicine	3	0.9%	4	1.3%	1	0.3%	8	0.8%
Adult / Internal Medicine	11	3.3%	14	4.4%	8	2.5%	33	3.4%
Anaesthesia	23	6.9%	14	4.4%	27	8.3%	64	6.5%
Dermatology	9	2.7%	11	3.4%	16	4.9%	36	3.7%
Emergency Medicine	41	12.3%	37	11.6%	48	14.7%	126	12.9%
General Practice	46	13.9%	31	9.7%	33	10.1%	110	11.2%
Indigenous Health	5	1.5%	5	1.6%	4	1.2%	14	1.4%
Intensive Care Medicine	16	4.8%	15	4.7%	6	1.8%	37	3.8%
Medical Administration	2	0.6%	3	0.9%	4	1.2%	9	0.9%
Non-specialist Hospital Practice	1	0.3%	1	0.3%	–	–	2	0.2%
Obstetrics and Gynaecology	19	5.7%	23	7.2%	18	5.5%	60	6.1%
Occupational and Environmental Medicine	1	0.3%	–	–	3	0.9%	4	0.4%
Ophthalmology	7	2.1%	6	1.9%	7	2.1%	20	2.0%
Oral and Maxillofacial Surgery	2	0.6%	2	0.6%	1	0.3%	5	0.5%
Paediatrics and Child Health	40	12.0%	40	12.5%	34	10.4%	114	11.7%
Pain Medicine	1	0.3%	1	0.3%	–	–	2	0.2%
Palliative Medicine	2	0.6%	2	0.6%	2	0.6%	6	0.6%
Pathology	12	3.6%	4	1.3%	4	1.2%	20	2.0%
Psychiatry	15	4.5%	12	3.8%	17	5.2%	44	4.5%
Public Health Medicine	5	1.5%	11	3.4%	10	3.1%	26	2.7%
Radiation Oncology	*		5	1.6%	6	1.8%	11	1.1%
Radiology	7	2.1%	6	1.9%	5	1.5%	18	1.8%
Rehabilitation Medicine	1	0.3%	1	0.3%	1	0.3%	3	0.3%
Rural and Remote Medicine	4	1.2%	5	1.6%	9	2.8%	18	1.8%
Sexual Health Medicine	3	0.9%	2	0.6%	–	–	5	0.5%
Sports & Exercise Medicine	*		16	5.0%	12	3.7%	28	2.9%
Surgery	52	15.7%	40	12.5%	44	13.5%	136	13.9%
Other	4	1.2%	9	2.8%	6	1.8%	19	1.9%
<b>Total responses</b>	<b>332</b>	<b>100.0%</b>	<b>320</b>	<b>100.0%</b>	<b>326</b>	<b>100.0%</b>	<b>978</b>	<b>100.0%</b>
Missing	62		47		37		146	
<b>Total</b>	<b>394</b>		<b>367</b>		<b>363</b>		<b>1,124</b>	

Base: respondents who had **not** decided on their specialty

\*was not an option for 2013 respondents

**Table 45.** Third preference in specialisation of respondents who **had not decided** on their specialty

Area of medicine	n	%	n	%	n	%	n	%
	2013	2013	2014	2014	2015	2015	total	total
Addiction Medicine	2	0.6%	–	–	1	0.3%	3	0.3%
Adult / Internal Medicine	15	4.5%	12	3.8%	15	4.7%	42	4.4%
Anaesthesia	18	5.4%	19	6.1%	17	5.3%	54	5.6%
Dermatology	8	2.4%	14	4.5%	8	2.5%	30	3.1%
Emergency Medicine	34	10.3%	21	6.7%	44	13.8%	99	10.3%
General Practice	61	18.4%	44	14.1%	55	17.2%	160	16.6%
Indigenous Health	5	1.5%	3	1.0%	4	1.3%	12	1.2%
Intensive Care Medicine	9	2.7%	4	1.3%	10	3.1%	23	2.4%
Medical Administration	6	1.8%	5	1.6%	3	0.9%	14	1.5%
Non-specialist Hospital Practice	7	2.1%	6	1.9%	2	0.6%	15	1.6%
Obstetrics and Gynaecology	18	5.4%	17	5.4%	8	2.5%	43	4.5%
Occupational and Environmental Medicine	1	0.3%	1	0.3%	–	–	2	0.2%
Ophthalmology	9	2.7%	8	2.6%	8	2.5%	25	2.6%
Oral and Maxillofacial Surgery	4	1.2%	3	1.0%	3	0.9%	10	1.0%
Paediatrics and Child Health	33	10.0%	27	8.7%	25	7.8%	85	8.8%
Pain Medicine	2	0.6%	2	0.6%	–	–	4	0.4%
Palliative Medicine	5	1.5%	2	0.6%	3	0.9%	10	1.0%
Pathology	10	3.0%	9	2.9%	7	2.2%	26	2.7%
Psychiatry	17	5.1%	15	4.8%	11	3.4%	43	4.5%
Public Health Medicine	10	3.0%	18	5.8%	5	1.6%	33	3.4%
Radiation Oncology	*		9	2.9%	12	3.8%	21	2.2%
Radiology	5	1.5%	5	1.6%	10	3.1%	20	2.1%
Rehabilitation Medicine	6	1.8%	4	1.3%	1	0.3%	11	1.1%
Rural and Remote Medicine	10	3.0%	8	2.6%	13	4.1%	31	3.2%
Sexual Health Medicine	1	0.3%	2	0.6%	3	0.9%	6	0.6%
Sports & Exercise Medicine	*		17	5.4%	12	3.8%	29	3.0%
Surgery	33	10.0%	29	9.3%	34	10.6%	96	10.0%
Other	2	0.6%	8	2.6%	6	1.9%	16	1.7%
<b>Total responses</b>	<b>331</b>	<b>100.0%</b>	<b>312</b>	<b>100.0%</b>	<b>320</b>	<b>100.0%</b>	<b>963</b>	<b>100.0%</b>
Missing	63		55		43		161	
<b>Total</b>	<b>394</b>		<b>367</b>		<b>363</b>		<b>1,124</b>	

Base: respondents who had **not** decided on their specialty

\*was not an option for 2013 respondents

Less than half (44%) of the respondents indicated an interest in medical teaching, and a slightly larger proportion (47%) in medical research, with significant proportions undecided on each prospect (48% and 39% respectively).

**Table 46.** Respondents interest in medical teaching

<b>Interest in medical teaching</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
	<b>2013</b>	<b>2013</b>	<b>2014</b>	<b>2014</b>	<b>2015</b>	<b>2015</b>	<b>total</b>	<b>total</b>
Yes	203	40.3%	221	44.5%	236	47.7%	660	44.1%
No	40	7.9%	45	9.1%	34	6.9%	119	8.0%
Undecided	261	51.8%	231	46.5%	225	45.5%	717	47.9%
<b>Total responses</b>	<b>504</b>	<b>100.0%</b>	<b>497</b>	<b>100.0%</b>	<b>495</b>	<b>100.0%</b>	<b>1,496</b>	<b>100.0%</b>
Missing	3		3		1		7	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*

**Table 47.** Respondents interest in research

<b>Interest in research</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
	<b>2013</b>	<b>2013</b>	<b>2014</b>	<b>2014</b>	<b>2015</b>	<b>2015</b>	<b>total</b>	<b>total</b>
Yes	233	46.1%	228	45.9%	249	50.3%	710	47.4%
No	59	11.7%	67	13.5%	78	15.8%	204	13.6%
Undecided	213	42.2%	202	40.6%	168	33.9%	583	38.9%
<b>Total responses</b>	<b>505</b>	<b>100.0%</b>	<b>497</b>	<b>100.0%</b>	<b>495</b>	<b>100.0%</b>	<b>1,497</b>	<b>100.0%</b>
Missing	2		3		1		6	
<b>Total</b>	<b>507</b>		<b>500</b>		<b>496</b>		<b>1,503</b>	

*Base: all respondents*



## 4. Discussion

This is the first report of cumulative national data on medical student demographics and career intentions at commencement of their programmes, based on the years 2013-2015.

### Demographics

Ninety-two percent of commencing University of Auckland and University of Otago medical students completed CMSQs between 2013 and 2015. Of the responders, 57% were female, 92% were New Zealand citizens or Permanent Residents, 62% had been born in New Zealand, and 91% were under 25 years of age. Just under a third (29%) held a tertiary qualification.

Twelve percent of respondents identified as Māori and 6% as Pacific people, this is an under-representation compared with 2015 New Zealand projected population figures of 16% and 8% respectively<sup>1</sup>.

A quarter (25%) of students reported coming from a rural background, though one in five of these had resided longer in a major city than in locations with smaller populations.

### Future career intentions

Given the response rates and no reason to suggest the data are inherently biased, the data are robust. The results should still be interpreted with caution because, over the course of the programme:

- Students' career intentions may change significantly; and,
- Students levels of certainty may change<sup>2</sup>.

Some early observations are possible from this cumulative data:

1. There is remarkable stability in the student demography and choices from cohort to cohort.
2. Where there are trends they are slight.
  - a. More students had attended school in Auckland and intend to return there.  
This may represent the increasing population there.
  - b. More student intending to stay in New Zealand to practice.
3. Students from a rural background are more likely to choose to work outside a major urban centre than those from non-rural backgrounds.
4. Approximately three-quarters of the students had not yet decided on a specialty preference. This is not an unexpected finding as students at entry have limited knowledge about what the different medical disciplines are.
5. At the beginning of medical school, surgery is the most popular first choice of career, both for those who have decided, and for those who are undecided on their future career. Paediatrics and General Practice round out the top three choices for both groups of students.

The real value of the MSOD project is longitudinal follow up of each student to determine changes in patterns, such as career intentions over time. This way, we can determine associations with medical school and postgraduate experiences. The results in this report, from students who have just entered medical school, can only reflect the effects of self-selection and admission activities, and cannot represent any effects of the curricula. Once the project has been running long enough to understand the effects of demographics, initial career choices, curricula and postgraduate experience on eventual career, these datasets will be far more informative.

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<sup>1</sup> New Zealand in Profile 2015, Statistics New Zealand, Tauranga Aotearoa, 2015

<sup>2</sup> Goldacre M, Laxton L, Lambert T. Medical graduates' early career choices of specialty and their eventual specialty destinations: UK prospective cohort studies. *BMJ* 2010;341:c3199.