

National report on students graduating medical school in New Zealand in 2012-2014

April 2017

Prepared by:

The New Zealand MSOD Steering Group.

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msod
medical schools outcomes database



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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April 2017 updates:

- Title changed, ISSN added
- Number of students graduating University of Otago corrected
- Age of respondents recalculated as at 30 November of survey year
- Tables 6 and 8 added

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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 and three year(s) after completion of their medical studies (PGY1, PGY3).

Information on student placements and electives will be collected directly from medical schools throughout the duration of the programme. In coming years, data will also be collected at five 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 2012-2014 EQ for University of Auckland and University of Otago medical students.

2. Method

At the end of their final year of their medical programme students were invited to participate in the MSOD EQ 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 2012-2014. This is the first cumulative report.

2.1. Questionnaire

The 19-question EQ gathers respondent information about basic demographics, future medical practice, and internship placements. The majority of the questions are quantitative, with three qualitative questions (relating to partner occupation, additional qualifications and internship placement).

'General medical school experiences' was added to the set of career influences surveyed in 2013 (see **Table 31**. Factors influencing choice of specialty), otherwise the questionnaires were stable throughout this reporting period.

2.2. Response rate

The NZ MSOD Governance Group is working with MCNZ and HWNZ to link the EQ to the MCNZ workforce survey in an attempt to coordinate activities but also to improve response rates in the future.

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

Medical School/ Programme	Pool 2012	EQs 2012	% 2012	Pool 2013	EQs 2013	% 2013	Pool 2014	EQs 2014	% 2014	Pool total	EQs total	% total
University of Auckland	162	146	90.1%	192	160	83.9%	186	148	79.6%	540	454	84.1%
University of Otago	246	157	63.8%	249	211	84.7%	238	153	64.3%	733	521	71.1%
Total	408	303	74.3%	441	371	84.1%	424	301	71.0%	1,273	975	76.6%

Table 2. Number of respondents by university

Medical School/Programme	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
University of Auckland	146	48.2%	160	43.1%	148	49.2%	454	46.6%
University of Otago	157	51.8%	211	56.9%	153	50.8%	521	53.4%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

3. Results

3.1. Respondents characteristics

More respondents in each year were female than were male.

Table 3. Gender of respondents

Gender	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Female	171	56.4%	217	58.5%	163	54.2%	551	56.5%
Male	131	43.2%	154	41.5%	136	45.2%	421	43.2%
Total responses	302	99.7%	371	100.0%	299	99.3%	972	99.7%
Missing	1	0.3%	–	–	2	0.7%	3	0.3%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Respondent ages, as calculated at 30 November 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	%
	2012	2012	2013	2013	2014	2014	total	total
20-24 years	194	64.0%	217	58.5%	182	60.5%	593	60.8%
25-29 years	100	33.0%	117	31.5%	96	31.9%	313	32.1%
30-34 years	5	1.7%	24	6.5%	8	2.7%	37	3.8%
35-39 years	2	0.7%	6	1.6%	4	0.7%	12	1.2%
40 years and over	1	0.3%	3	0.8%	3	1.0%	7	0.7%
Total responses	302	99.7%	367	98.9%	293	96.7%	962	98.7%
Missing	1	0.3%	4	1.1%	8	2.7%	13	1.3%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 5. Mean age (standard deviation) of respondents

Age	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
	2012	2012	2013	2013	2014	2014	total	total
Total	25.1	2.0	25.7	3.2	25.5	3.0	25.4	2.8

Base: all respondents for whom age is known

Table 6. Ethnicity of respondents

Ethnicity	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
New Zealand European	175	57.8%	198	53.4%	180	59.8%	553	56.7%
Māori	23	7.6%	29	7.8%	21	7.0%	73	7.5%
Pacific peoples	12	4.0%	16	4.3%	18	6.0%	46	4.7%
Other	124	40.9%	159	42.9%	112	37.2%	395	40.5%
Missing	2	0.7%	7	1.9%	2	0.7%	11	1.1%

Base: all respondents

Percentages total more than 100% as multiple responses were accepted

Table 7. Citizenship of respondents

Citizenship	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
New Zealand citizen	240	79.2%	301	81.1%	269	89.4%	810	83.1%
New Zealand Permanent Resident	16	5.3%	22	5.9%	10	3.3%	48	4.9%
Australian citizen	4	1.3%	4	1.1%	2	0.7%	10	1.0%
Student Visa holder	36	11.9%	28	7.5%	13	4.3%	77	7.9%
Temporary entry permit	2	0.7%	9	2.4%	–	–	11	1.1%
Total responses	298	98.3%	364	98.1%	294	97.7%	956	98.1%
Missing	5	1.7%	7	1.9%	7	2.3%	19	1.9%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 8. Ethnicity of domestic student respondents

Ethnicity	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
New Zealand European	174	66.9%	196	59.9%	177	63.0%	547	63.0%
Māori	21	8.1%	28	8.6%	21	7.5%	70	8.1%
Pacific peoples	12	4.6%	16	4.9%	16	5.7%	44	5.1%
Other	84	32.3%	118	36.1%	99	35.2%	301	34.7%
Missing	2	0.8%	6	1.8%	0	0.0%	8	0.9%

Base: respondents identifying as domestic students (NZ citizens, NZ Permanent Residents, Australians)

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 9. Marital status of respondents

Marital status	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Single	158	52.1%	190	51.2%	151	50.2%	499	51.2%
In a relationship but not living with partner	49	16.2%	75	20.2%	62	20.6%	186	19.1%
Living with partner	70	23.1%	71	19.1%	59	19.6%	200	20.5%
Married	23	7.6%	34	9.2%	24	8.0%	81	8.3%
Separated	–	–	–	–	1	0.3%	1	0.1%
Divorced	–	–	–	–	1	0.3%	1	0.1%
Widowed	–	–	–	–	–	–	0	0.0%
Total responses	300	99.0%	370	99.5%	298	99.0%	968	99.3%
Missing	3	1.0%	1	0.5%	3	1.0%	7	0.7%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

The number of respondents with children under the age of 16 is shown in **Table 10**.

Ninety-six percent (96%) of respondents reported having no dependents (people who are financially dependent on them excluding children under the age of 16 – see **Table 11**).

Table 10. Number of children reported by respondents

Number of children	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
0	295	97.4%	358	96.5%	288	95.7%	941	96.5%
1	3	1.0%	6	1.6%	1	0.3%	10	1.0%
2	2	0.7%	6	1.6%	5	1.7%	13	1.3%
3	–	–	1	0.3%	2	0.7%	3	0.3%
Total responses	300	99.0%	371	100.0%	296	98.3%	967	99.2%
Missing	3	1.0%	–	–	5	1.7%	8	0.8%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 11. Number of dependents reported by respondents

Number of dependents	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
0	294	97.0%	357	96.2%	282	93.7%	933	95.7%
1	4	1.3%	10	2.7%	8	2.7%	22	2.3%
2	1	0.3%	4	1.1%	2	0.7%	7	0.7%
3	–	–	–	–	1	0.3%	1	0.1%
Total responses	299	98.7%	371	100.0%	293	97.3%	963	98.8%
Missing	4	1.3%	–	–	8	2.7%	12	1.2%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

3.3. Employment

Respondents were asked to indicate “the average number of hours worked per week in all paid employment (full time, part-time, casual and/or vacation) while undertaking your medical degree.” The results are shown in **Table 12**.

Table 12. Hours of paid employment undertaken while completing medical degree

Hours per week of paid employment	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
No paid employment	152	50.2%	153	41.2%	133	44.2%	438	44.9%
1-4 hrs	37	12.2%	95	25.6%	52	17.3%	184	18.9%
5-9 hrs	58	19.1%	56	15.1%	56	18.6%	170	17.4%
10-14 hrs	29	9.6%	35	9.4%	33	11.0%	97	9.9%
15-19 hrs	6	2.0%	15	4.0%	7	2.3%	28	2.9%
20-24 hrs			12	3.2%	6	2.0%		
25-29 hrs	16	5.3%	1	0.3%	–	–	45	4.6%
30+ hrs			4	1.1%	6	2.0%		
Total responses	298	98.3%	371	100.0%	293	97.3%	962	98.7%
Missing	5	1.7%	–	–	8	2.7%	13	1.3%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

3.4. Future medical practice

Ninety-three percent (93%) of respondents indicated a first preference to practise in New Zealand.

Table 13 shows respondents' first, second and third preferences for location of practice on completion of their basic medical degree.

Table 13. First preference of country of future practice

Country	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Within New Zealand	273	90.1%	340	91.6%	290	96.3%	903	92.6%
Country other than NZ	25	8.3%	22	5.9%	10	3.3%	57	5.8%
Total responses	298	98.3%	362	97.6%	300	99.7%	960	98.5%
Missing	5	1.7%	9	2.4%	1	0.3%	15	1.5%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 14. Second preference of country of future practice

Country	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Within New Zealand	242	79.9%	309	83.3%	250	83.1%	801	82.2%
Country other than NZ	32	10.6%	19	5.1%	22	7.3%	73	7.5%
Total responses	274	90.4%	328	88.4%	272	90.4%	854	87.6%
Missing	29	9.6%	43	11.6%	29	9.6%	101	10.4%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 15. Third preference of country of future practice

Country	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Within New Zealand	201	66.3%	258	69.5%	209	69.4%	668	68.5%
Country other than NZ	52	17.2%	50	13.5%	41	13.6%	143	14.7%
Total responses	253	83.5%	308	83.0%	250	83.0%	811	83.2%
Missing	50	16.5%	63	17.0%	51	16.9%	164	16.8%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

The preferred region of practice reflects the population demographics, though 2014 saw more intending to practise in the Auckland region compared with 2012 and 2013.

Table 16. First preference for region of future practice

Region	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Auckland	97	32.0%	118	31.8%	124	41.2%	339	34.8%
Bay of Plenty	28	9.2%	26	7.0%	18	6.0%	72	7.4%
Canterbury	25	8.3%	43	11.6%	35	11.6%	103	10.6%
Gisborne	6	2.0%	6	1.6%	3	1.0%	15	1.5%
Hawkes Bay	10	3.3%	15	4.0%	11	3.7%	36	3.7%
Manawatu-Whanganui	7	2.3%	6	1.6%	4	1.3%	17	1.7%
Marlborough	1	0.3%	2	0.5%	2	0.7%	5	0.5%
Nelson	9	3.0%	10	2.7%	7	2.3%	26	2.7%
Northland	15	5.0%	15	4.0%	12	4.0%	42	4.3%
Otago	16	5.3%	9	2.4%	11	3.7%	36	3.7%
Southland	1	0.3%	4	1.1%	6	2.0%	11	1.1%
Taranaki	7	2.3%	8	2.2%	9	3.0%	24	2.5%
Tasman	1	0.3%	–	–	–	–	1	0.1%
Waikato-Taupo	19	6.3%	22	5.9%	24	8.0%	65	6.7%
Wellington region	31	10.2%	56	15.1%	24	8.0%	111	11.4%
Westland	–	–	–	–	–	–	0	0.0%
Country other than NZ	25	8.3%	22	5.9%	10	3.3%	57	5.8%
Total responses	298	98.3%	362	97.6%	300	99.7%	960	98.5%
Missing	5	1.7%	9	2.4%	1	0.3%	15	1.5%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 17. Second preference for region of future practice

Region	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Auckland	49	16.2%	68	18.3%	43	14.3%	160	16.4%
Bay of Plenty	28	9.2%	39	10.5%	31	10.3%	98	10.1%
Canterbury	16	5.3%	17	4.6%	23	7.6%	56	5.7%
Gisborne	3	1.0%	4	1.1%	4	1.3%	11	1.1%
Hawkes Bay	11	3.6%	17	4.6%	13	4.3%	41	4.2%
Manawatu-Whanganui	4	1.3%	11	3.0%	–	–	15	1.5%
Marlborough	6	2.0%	4	1.1%	2	0.7%	12	1.2%
Nelson	20	6.6%	9	2.4%	10	3.3%	39	4.0%
Northland	17	5.6%	16	4.3%	18	6.0%	51	5.2%
Otago	7	2.3%	8	2.2%	7	2.3%	22	2.3%
Southland	3	1.0%	3	0.8%	2	0.7%	8	0.8%

Taranaki	8	2.6%	14	3.8%	14	4.7%	36	3.7%
Tasman	1	0.3%	1	0.3%	1	0.3%	3	0.3%
Waikato-Taupo	33	10.9%	40	10.8%	41	13.6%	114	11.7%
Wellington region	35	11.6%	53	14.3%	40	13.3%	128	13.1%
Westland	1	0.3%	5	1.3%	1	0.3%	7	0.7%
Country other than NZ	32	10.6%	19	5.1%	22	7.3%	73	7.5%
Total responses	274	90.4%	328	88.4%	272	90.4%	874	89.6%
Missing	29	9.6%	43	11.6%	29	9.6%	101	10.4%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 18. Third preference for region of future practice

Region	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Auckland	25	8.3%	21	5.7%	16	5.3%	62	6.4%
Bay of Plenty	20	6.6%	27	7.3%	27	9.0%	74	7.6%
Canterbury	11	3.6%	16	4.3%	21	7.0%	48	4.9%
Gisborne	6	2.0%	6	1.6%	9	3.0%	21	2.2%
Hawkes Bay	16	5.3%	21	5.7%	14	4.7%	51	5.2%
Manawatu-Wanganui	3	1.0%	11	3.0%	3	1.0%	17	1.7%
Marlborough	8	2.6%	4	1.1%	3	1.0%	15	1.5%
Nelson	6	2.0%	15	4.0%	15	5.0%	36	3.7%
Northland	21	6.9%	22	5.9%	17	5.6%	60	6.2%
Otago	9	3.0%	17	4.6%	9	3.0%	35	3.6%
Southland	5	1.7%	3	0.8%	–	–	8	0.8%
Taranaki	13	4.3%	20	5.4%	13	4.3%	46	4.7%
Tasman	–	–	1	0.3%	1	0.3%	2	0.2%
Waikato-Taupo	21	6.9%	25	6.7%	24	8.0%	70	7.2%
Wellington region	32	10.6%	42	11.3%	31	10.3%	105	10.8%
Westland	5	1.7%	7	1.9%	6	2.0%	18	1.8%
Country other than NZ	52	17.2%	50	13.5%	41	13.6%	143	14.7%
Total responses	253	83.5%	308	83.0%	250	83.1%	811	83.2%
Missing	50	16.5%	63	17.0%	51	16.9%	164	16.8%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Respondents indicated that major cities were the most preferred for future practice. The percentage of respondents expressing a preference for a population centre decreased as the population of the centre decreased (**Table 19**).

Table 19. Preferred population centre size of future practice

Location within New Zealand	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Major city (population over 100,000)	160	52.8%	229	61.7%	200	66.4%	589	60.4%
Regional city or large town (population 25,000-100,000)	99	32.7%	93	25.1%	67	22.3%	259	26.6%
Town (population 10,000-24,999)	17	5.6%	19	5.1%	17	5.6%	53	5.4%
Small town (population under 10,000)	5	1.7%	7	1.9%	3	1.0%	15	1.5%
Not applicable, not intending to work in New Zealand	7	2.3%	5	1.3%	2	0.7%	14	1.4%
Total responses	288	95.0%	353	95.1%	289	96.0%	930	95.4%
Missing	15	5.0%	18	4.9%	12	4.0%	45	4.6%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Students were asked whether they had decided on their specialisation (Table 18). At graduation, the majority was undecided.

Table 20. Decided on specialisation

Response	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Yes	132	43.6%	159	42.9%	142	47.2%	433	44.4%
No	171	56.4%	208	56.1%	156	51.8%	535	54.9%
Total responses	303	100.0%	367	98.9%	298	99.0%	968	99.3%
Missing	–	–	4	1.1%	3	1.0%	7	0.7%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

The following three tables show the preferred specialisation respondents reported being most interested in on completion of their basic medical degree, with results group by: all respondents regardless of whether they indicated they have decided on which specialisation they would pursue (**Table 21**); those who indicated they had decided on the specialisation they are interested in pursuing (**Table 24**); and those who had not yet decided (**Table 25**). The specialty clusters are broad, particularly for Internal Medicine, and we hope to have finer-grained categories in the future.

Table 21 shows the first, second and third preference, regardless of whether the respondent had decided what specialisation they would pursue.

Even though most respondents had not decided on a specialisation for future practice, if asked to indicate a preference, General Practice, Surgery and Internal Medicine were the most popular.

Table 21. First preference of specialisation for all respondents

Area of medicine	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Addiction Medicine	2	0.7%	3	0.8%	–	–	5	0.5%
Adult / Internal Medicine	33	10.9%	46	12.4%	40	13.3%	119	12.2%
Anaesthesia	20	6.6%	20	5.4%	17	5.6%	57	5.8%
Dermatology	2	0.7%	5	1.3%	3	1.0%	10	1.0%
Emergency Medicine	17	5.6%	16	4.3%	18	6.0%	51	5.2%
General Practice	59	19.5%	52	14.0%	72	23.9%	183	18.8%
Indigenous Health	–	–	–	–	1	0.3%	1	0.1%
Intensive Care Medicine	2	0.7%	4	1.1%	5	1.7%	11	1.1%
Medical Administration	1	0.3%	–	–	1	0.3%	2	0.2%
Non-specialist Hospital Practice	1	0.3%	2	0.5%	–	–	3	0.3%
Obstetrics and Gynaecology	19	6.3%	24	6.5%	21	7.0%	64	6.6%
Occupational and Environmental Medicine	–	–	–	–	–	–	0	0.0%
Ophthalmology	6	2.0%	5	1.3%	6	2.0%	17	1.7%
Oral and Maxillofacial Surgery	–	–	1	0.3%	1	0.3%	2	0.2%
Paediatrics and Child Health	35	11.6%	30	8.1%	21	7.0%	86	8.8%
Pain Medicine	–	–	–	–	1	0.3%	1	0.1%
Palliative Medicine	1	0.3%	1	0.3%	2	0.7%	4	0.4%
Pathology	–	–	3	0.8%	2	0.7%	5	0.5%
Psychiatry	2	0.7%	9	2.4%	4	1.3%	15	1.5%
Public Health Medicine	3	1.0%	1	0.3%	1	0.3%	5	0.5%
Radiation Oncology	4	1.3%	2	0.5%	–	–	6	0.6%
Radiology	11	3.6%	9	2.4%	8	2.7%	28	2.9%
Rehabilitation medicine	–	–	–	–	–	–	0	0.0%
Rural and Remote Medicine	–	–	6	1.6%	9	3.0%	15	1.5%
Sexual Health Medicine	8	2.6%	1	0.3%	–	–	9	0.9%
Sports Medicine	1	0.3%	4	1.1%	6	2.0%	11	1.1%
Surgery	45	14.9%	76	20.5%	41	13.6%	162	16.6%
Other	10	3.3%	12	3.2%	5	1.7%	27	2.8%
Total responses	282	93.1%	332	89.5%	285	94.7%	899	92.2%
Missing	21	6.9%	39	10.5%	16	5.3%	76	7.8%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 22. Second preference of specialisation for **all** respondents

Area of medicine	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Addiction Medicine	–	–	–	–	–	–	0	0.0%
Adult / Internal Medicine	27	8.9%	29	7.8%	27	9.0%	83	8.5%
Anaesthesia	12	4.0%	15	4.0%	12	4.0%	39	4.0%
Dermatology	7	2.3%	5	1.3%	3	1.0%	15	1.5%
Emergency Medicine	29	9.6%	28	7.5%	11	3.7%	68	7.0%
General Practice	24	7.9%	31	8.4%	26	8.6%	81	8.3%
Indigenous Health	–	–	1	0.3%	–	–	1	0.1%
Intensive Care Medicine	8	2.6%	8	2.2%	4	1.3%	20	2.1%
Medical Administration	2	0.7%	–	–	–	–	2	0.2%
Non-specialist Hospital Practice	–	–	1	0.3%	–	–	1	0.1%
Obstetrics and Gynaecology	11	3.6%	21	5.7%	6	2.0%	38	3.9%
Occupational and Environmental Medicine	–	–	2	0.5%	–	–	2	0.2%
Ophthalmology	2	0.7%	5	1.3%	2	0.7%	9	0.9%
Oral and Maxillofacial Surgery	–	–	–	–	1	0.3%	1	0.1%
Paediatrics and Child Health	18	5.9%	16	4.3%	15	5.0%	49	5.0%
Pain Medicine	–	–	–	–	–	–	0	0.0%
Palliative Medicine	–	–	3	0.8%	2	0.7%	5	0.5%
Pathology	1	0.3%	–	–	–	–	1	0.1%
Psychiatry	1	0.3%	5	1.3%	8	2.7%	14	1.4%
Public Health Medicine	6	2.0%	5	1.3%	1	0.3%	12	1.2%
Radiation Oncology	2	0.7%	2	0.5%	–	–	4	0.4%
Radiology	1	0.3%	7	1.9%	5	1.7%	13	1.3%
Rehabilitation medicine	–	–	–	–	–	–	0	0.0%
Rural and Remote Medicine	–	–	3	0.8%	7	2.3%	10	1.0%
Sexual Health Medicine	9	3.0%	1	0.3%	1	0.3%	11	1.1%
Sports Medicine	2	0.7%	5	1.3%	1	0.3%	8	0.8%
Surgery	17	5.6%	10	2.7%	7	2.3%	34	3.5%
Other	6	2.0%	4	1.1%	3	1.0%	13	1.3%
Total responses	185	61.1%	207	55.8%	142	47.2%	534	54.8%
Missing	118	38.9%	164	44.2%	159	52.8%	441	45.2%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 23. Third preference of specialisation for **all** respondents

Area of medicine	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Addiction Medicine	1	0.3%	–	–	1	0.3%	2	0.2%
Adult / Internal Medicine	26	8.6%	20	5.4%	14	4.7%	60	6.2%
Anaesthesia	6	2.0%	10	2.7%	5	1.7%	21	2.2%
Dermatology	5	1.7%	–	–	2	0.7%	7	0.7%
Emergency Medicine	19	6.3%	22	5.9%	15	5.0%	56	5.7%
General Practice	35	11.6%	38	10.2%	20	6.6%	93	9.5%
Indigenous Health	1	0.3%	–	–	–	–	1	0.1%
Intensive Care Medicine	11	3.6%	5	1.3%	6	2.0%	22	2.3%
Medical Administration	4	1.3%	3	0.8%	3	1.0%	10	1.0%
Non-specialist Hospital Practice	1	0.3%	2	0.5%	–	–	3	0.3%
Obstetrics and Gynaecology	11	3.6%	9	2.4%	6	2.0%	26	2.7%
Occupational and Environmental Medicine	–	–	–	–	–	–	0	0.0%
Ophthalmology	3	1.0%	4	1.1%	1	0.3%	8	0.8%
Oral and Maxillofacial Surgery	–	–	2	0.5%	1	0.3%	3	0.3%
Paediatrics and Child Health	10	3.3%	22	5.9%	9	3.0%	41	4.2%
Pain Medicine	–	–	–	–	–	–	0	0.0%
Palliative Medicine	–	–	–	–	2	0.7%	2	0.2%
Pathology	3	1.0%	1	0.3%	3	1.0%	7	0.7%
Psychiatry	–	–	5	1.3%	2	0.7%	7	0.7%
Public Health Medicine	7	2.3%	2	0.5%	2	0.7%	11	1.1%
Radiation Oncology	3	1.0%	1	0.3%	1	0.3%	5	0.5%
Radiology	4	1.3%	7	1.9%	6	2.0%	17	1.7%
Rehabilitation medicine	–	–	–	–	1	0.3%	1	0.1%
Rural and Remote Medicine	1	0.6%	8	2.2%	2	0.7%	11	1.1%
Sexual Health Medicine	6	2.0%	3	0.8%	1	0.3%	10	1.0%
Sports Medicine	1	0.3%	2	0.5%	3	1.0%	6	0.6%
Surgery	12	4.0%	19	5.1%	11	3.7%	42	4.3%
Other	3	1.0%	4	1.1%	10	3.3%	17	1.7%
Total responses	173	57.1%	189	50.9%	127	42.2%	489	50.2%
Missing	130	42.9%	182	49.1%	174	57.8%	486	49.8%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 24 shows the first preference for respondents who stated they **had decided** what specialisation they would pursue.

Amongst those who have decided, Surgery, General Practice and Internal Medicine are the most popular.

Table 24. Specialisation preference of respondents who **had decided** on their speciality

Area of medicine	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Addiction Medicine	1	0.8%	2	1.3%	–	–	3	0.7%
Adult / Internal Medicine	12	9.1%	13	8.2%	19	13.4%	44	10.2%
Anaesthesia	12	9.1%	10	6.3%	5	3.5%	27	6.2%
Dermatology	–	–	4	2.5%	1	0.7%	5	1.2%
Emergency Medicine	6	4.5%	7	4.4%	7	4.9%	20	4.6%
General Practice	26	19.7%	19	11.9%	37	26.1%	82	18.9%
Intensive Care Medicine	2	1.5%	2	1.3%	3	2.1%	7	1.6%
Non-specialist Hospital Practice	1	0.8%	1	0.6%	–	–	2	0.5%
Obstetrics and Gynaecology	5	3.8%	10	6.3%	12	8.5%	27	6.2%
Ophthalmology	4	3.0%	4	2.5%	5	3.5%	13	3.0%
Oral and Maxillofacial Surgery	–	–	1	0.6%	1	0.7%	2	0.5%
Paediatrics and Child Health	17	12.9%	8	5.0%	7	4.9%	32	7.4%
Pain Medicine	–	–	–	–	1	0.7%	1	0.2%
Palliative Medicine	1	0.8%	1	0.6%	1	0.7%	3	0.7%
Pathology	1	0.8%	3	1.9%	2	1.4%	6	1.4%
Psychiatry	3	2.3%	5	3.1%	2	1.4%	10	2.3%
Public Health Medicine	1	0.8%	1	0.6%	–	–	2	0.5%
Radiology	9	6.8%	6	3.8%	5	3.5%	20	4.6%
Rural and Remote Medicine	–	–	2	1.3%	4	2.8%	6	1.4%
Sports Medicine	–	–	2	1.3%	4	2.8%	6	1.4%
Surgery	24	18.2%	47	29.6%	22	15.5%	93	21.5%
Other	7	5.3%	6	3.8%	4	2.8%	17	3.9%
Total responses	132	100.0%	154	96.9%	142	100.0%	428	98.8%
Missing	–	–	5	3.1%	–	–	5	1.2%
Total	132	100.0%	159	100.0%	142	100.0%	433	100.0%

Base: respondents who had decided on their speciality

Those who stated they **had not decided** what specialisation they would pursue were still asked to rank the areas in terms of their interest. The first, second and third preferences for these respondents are shown in **Table 17**. Amongst the undecided, General Practice then Internal Medicine and are the most frequent specialties under consideration.

Table 25. First preference in specialisation of respondents who **had not decided** on their speciality

Area of medicine	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Addiction Medicine	1	0.6%	1	0.5%	–	–	2	0.4%
Adult / Internal Medicine	21	12.3%	33	15.9%	21	13.5%	75	14.0%
Anaesthesia	8	4.7%	10	4.8%	12	7.7%	30	5.6%
Dermatology	2	1.2%	1	0.5%	2	1.3%	5	0.9%
Emergency Medicine	11	6.4%	9	4.3%	11	7.1%	31	5.8%
General Practice	33	19.3%	33	15.9%	35	22.4%	101	18.9%
Indigenous Health	–	–	–	–	1	0.6%	1	0.2%
Intensive Care Medicine	–	–	2	1.0%	2	1.3%	4	0.7%
Medical Administration	1	0.6%	–	–	1	0.6%	2	0.4%
Non-specialist Hospital Practice	–	–	1	0.5%	–	–	1	0.2%
Obstetrics and Gynaecology	14	8.2%	14	6.7%	9	5.8%	37	6.9%
Occupational and Environmental Medicine	–	–	–	–	–	–	0	0.0%
Ophthalmology	2	1.2%	1	0.5%	1	0.6%	4	0.7%
Oral and Maxillofacial Surgery	–	–	–	–	–	–	0	0.0%
Paediatrics and Child Health	18	10.5%	22	10.6%	14	9.0%	54	10.1%
Pain Medicine	–	–	–	–	–	–	0	0.0%
Palliative Medicine	–	–	–	–	1	0.6%	1	0.2%
Pathology	1	0.6%	–	–	–	–	1	0.2%
Psychiatry	–	–	4	1.9%	2	1.3%	6	1.1%
Public Health Medicine	3	1.8%	–	–	1	0.6%	4	0.7%
Radiation Oncology	–	–	2	1.0%	–	–	2	0.4%
Radiology	2	1.2%	3	1.4%	3	1.9%	8	1.5%
Rehabilitation Medicine	–	–	–	–	–	–	0	0.0%
Rural and Remote Medicine	8	4.7%	4	1.9%	5	3.2%	17	3.2%
Sexual Health Medicine	1	0.6%	1	0.5%	–	–	2	0.4%
Sports Medicine	–	–	2	1.0%	2	1.3%	4	0.7%
Surgery	21	12.3%	29	13.9%	19	12.2%	69	12.9%
Other	3	1.8%	6	2.9%	1	0.6%	10	1.9%
Total responses	150	87.7%	178	85.6%	143	91.7%	471	88.0%
Missing	21	12.3%	30	14.4%	13	8.3%	64	12.0%
Total	171	100.0%	208	100.0%	156	100.0%	535	100.0%

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

Table 26. Second preference in specialisation of respondents who **had not decided** on their specialty

Area of medicine	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Addiction Medicine	–	–	–	–	–	–	0	0.0%
Adult / Internal Medicine	19	11.1%	22	10.6%	27	17.3%	68	12.7%
Anaesthesia	10	5.8%	12	5.8%	12	7.7%	34	6.4%
Dermatology	4	2.3%	5	2.4%	3	1.9%	12	2.2%
Emergency Medicine	29	17.0%	22	10.6%	11	7.1%	62	11.6%
General Practice	19	11.1%	29	13.9%	26	16.7%	74	13.8%
Indigenous Health	–	–	1	0.5%	–	–	1	0.2%
Intensive Care Medicine	5	2.9%	6	2.9%	4	2.6%	15	2.8%
Medical Administration	2	1.2%	–	–	–	–	2	0.4%
Non-specialist Hospital Practice	–	–	1	0.5%	–	–	1	0.2%
Obstetrics and Gynaecology	9	5.3%	18	8.7%	6	3.8%	33	6.2%
Occupational and Environmental Medicine	–	–	2	1.0%	–	–	2	0.4%
Ophthalmology	2	1.2%	5	2.4%	2	1.3%	9	1.7%
Oral and Maxillofacial Surgery	–	–	–	–	1	0.6%	1	0.2%
Paediatrics and Child Health	15	8.8%	13	6.3%	15	9.6%	43	8.0%
Pain Medicine	–	–	–	–	–	–	0	0.0%
Palliative Medicine	–	–	2	1.0%	2	1.3%	4	0.7%
Pathology	–	–	–	–	–	–	0	0.0%
Psychiatry	6	3.5%	5	2.4%	8	5.1%	19	3.6%
Public Health Medicine	2	1.2%	4	1.9%	1	0.6%	7	1.3%
Radiation Oncology	–	–	2	1.0%	–	–	2	0.4%
Radiology	1	0.6%	5	2.4%	5	3.2%	11	2.1%
Rehabilitation Medicine	–	–	–	–	–	–	0	0.0%
Rural and Remote Medicine	6	3.5%	3	1.4%	7	4.5%	16	3.0%
Sexual Health Medicine	2	1.2%	1	0.5%	1	0.6%	4	0.7%
Sports Medicine	–	–	4	1.9%	1	0.6%	5	0.9%
Surgery	14	8.2%	9	4.3%	7	4.5%	30	5.6%
Other	3	1.8%	4	1.9%	3	1.9%	10	1.9%
Total responses	148	86.5%	175	84.1%	142	91.0%	465	86.9%
Missing	23	13.5%	33	15.9%	14	9.0%	70	13.1%
Total	171	100.0%	208	100.0%	156	100.0%	535	100.0%

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

Table 27. Third preference in specialisation of respondents who **had not decided** on their speciality

Area of medicine	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Addiction Medicine	1	0.6%	–	–	1	0.6%	2	0.4%
Adult / Internal Medicine	20	11.7%	16	7.7%	14	9.0%	50	9.3%
Anaesthesia	6	3.5%	8	3.8%	5	3.2%	19	3.6%
Dermatology	5	2.9%	–	–	2	1.3%	7	1.3%
Emergency Medicine	19	11.1%	20	9.6%	15	9.6%	54	10.1%
General Practice	26	15.2%	33	15.9%	20	12.8%	79	14.8%
Indigenous Health	1	0.6%	–	–	–	–	1	0.2%
Intensive Care Medicine	8	4.7%	3	1.4%	6	3.8%	17	3.2%
Medical Administration	3	1.8%	2	1.0%	3	1.9%	8	1.5%
Non-specialist Hospital Practice	1	0.6%	1	0.5%	–	–	2	0.4%
Obstetrics and Gynaecology	10	5.8%	9	4.3%	6	3.8%	25	4.7%
Occupational and Environmental Medicine	–	–	–	–	–	–	0	0.0%
Ophthalmology	3	1.8%	2	1.0%	1	0.6%	6	1.1%
Oral and Maxillofacial Surgery	–	–	1	0.5%	1	0.6%	2	0.4%
Paediatrics and Child Health	8	4.7%	19	9.1%	9	5.8%	36	6.7%
Pain Medicine	–	–	–	–	–	–	0	0.0%
Palliative Medicine	3	1.8%	–	–	2	1.3%	5	0.9%
Pathology	–	–	1	0.5%	3	1.9%	4	0.7%
Psychiatry	5	2.9%	5	2.4%	2	1.3%	12	2.2%
Public Health Medicine	3	1.8%	2	1.0%	2	1.3%	7	1.3%
Radiation Oncology	–	–	1	0.5%	1	0.6%	2	0.4%
Radiology	4	2.3%	5	2.4%	6	3.8%	15	2.8%
Rehabilitation Medicine	1	0.6%	–	–	1	0.6%	2	0.4%
Rural and Remote Medicine	5	2.9%	8	3.8%	2	1.3%	15	2.8%
Sexual Health Medicine	1	0.6%	2	1.0%	1	0.6%	4	0.7%
Sports Medicine	–	–	2	1.0%	3	1.9%	5	0.9%
Surgery	8	4.7%	18	8.7%	11	7.1%	37	6.9%
Other	3	1.8%	4	1.9%	10	6.4%	17	3.2%
Total responses	144	84.2%	162	77.9%	127	81.4%	433	80.9%
Missing	27	15.8%	46	22.1%	29	18.6%	102	19.1%
Total	171	100.0%	208	100.0%	156	100.0%	535	100.0%

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

When respondents were asked if they were interested in becoming involved with medical teaching, the majority indicated they would be interested, though a substantial proportion was undecided (**Table 28**). When asked if they were interested in becoming involved with research, just over half the respondents indicated they would be interested while over a quarter were undecided (**Table 29**).

Table 28. Respondents interest in medical teaching

Interest in medical teaching	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Yes	225	74.3%	283	76.3%	221	73.4%	729	74.8%
No	17	5.6%	17	4.6%	14	4.7%	48	4.9%
Undecided	59	19.5%	61	16.4%	60	19.9%	180	18.5%
Total responses	301	99.3%	361	97.3%	295	98.0%	957	98.2%
Missing	2	0.7%	10	2.7%	6	2.0%	18	1.8%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 29. Respondents interest in research

Interest in research	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Yes	154	50.8%	207	55.8%	160	53.2%	521	53.4%
No	56	18.5%	59	15.9%	57	18.9%	172	17.6%
Undecided	90	29.7%	96	25.9%	79	26.2%	265	27.2%
Total responses	300	99.0%	362	97.6%	296	98.3%	958	98.3%
Missing	3	1.0%	9	2.4%	5	1.7%	17	1.7%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Respondents were asked to indicate how certain they were that they would practise within their most preferred specialisation (**Table 30**). The results confirm that most are still very undecided about future career plans at the time of leaving medical school.

Table 30. Certainty of practising in preferred specialisation

Certainty	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Absolutely certain	36	11.9%	43	11.6%	32	10.6%	111	11.4%
Moderately certain	179	59.1%	187	50.4%	159	52.8%	525	53.8%
Not at all certain	80	26.4%	127	34.2%	98	32.6%	305	31.3%
Total responses	295	97.4%	357	96.2%	289	96.0%	941	96.5%
Missing	8	2.6%	14	3.8%	12	4.0%	34	3.5%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Respondents were asked to rate on a scale of one to five (where 0=not at all and 5=a great deal) how a certain factor would influence entering their most preferred specialisation. **Table 31** lists each factor along with the mean score and SD.

Although students are generally undecided about career choices by the time they leave medical school, the culture of the discipline and the experience of the specialty gained through medical school seem influential factors.

Table 31. Factors influencing choice of specialty

Factor	Mean influence score 2012		Mean influence score 2013		Mean influence score 2014		Mean influence score total	
	SD	SD	SD	SD	SD	SD	SD total	SD total
Atmosphere/work culture typical of the discipline	4.07	1.04	3.91	1.14	4.13	0.89	4.03	1.04
Experience of specialty as a medical student	3.99	1.05	3.93	1.17	3.95	1.06	3.96	1.10
Interest in helping people	3.88	1.21	3.99	1.12	3.96	1.01	3.95	1.12
Intellectual content of the specialty	3.93	1.03	3.69	1.19	3.82	1.02	3.80	1.09
Influence of consultants/mentors	3.82	1.04	3.74	1.17	3.77	1.02	3.77	1.08
General medical school experiences*	–	–	3.74	1.18	3.73	1.01	3.74	1.10
Self-appraisal of own skills/aptitudes	3.87	0.98	3.69	1.09	3.61	0.92	3.72	1.01
Opportunity for procedural work	3.58	1.21	3.57	1.44	3.67	1.21	3.61	1.30
Perceived opportunity to work flexible hours	3.73	1.27	3.34	1.28	3.55	1.23	3.53	1.27
Perceived amount of working hours	3.67	1.18	3.29	1.22	3.51	1.14	3.48	1.19
Type of patients typical of the discipline	3.42	1.23	3.41	1.26	3.33	1.13	3.39	1.21
Self-appraisal of own domestic circumstances	3.40	1.22	3.09	1.27	3.18	1.14	3.21	1.22
Perceived career advancement prospects	3.11	1.23	3.11	1.29	3.13	1.21	3.12	1.24
Availability of a vocational training placement	3.17	1.23	2.98	1.27	3.15	1.15	3.09	1.22
Perceived job security	3.10	1.31	2.67	1.56	3.13	1.16	2.95	1.38

Factor	Mean influence score 2012		Mean influence score 2013		Mean influence score 2014		Mean influence score total	SD total
	SD 2012	SD 2013	SD 2014	SD 2014				
Opportunity for research and /or teaching	2.76	1.21	2.77	1.32	2.81	1.25	2.78	1.26
Geographical location of most preferred specialty	2.91	1.31	2.68	1.35	2.74	1.25	2.77	1.31
Number of years required to complete training	2.71	1.22	2.66	1.30	2.69	1.27	2.69	1.27
Perceived financial prospects	2.63	1.16	2.39	1.23	2.47	1.18	2.49	1.20
Perceived prestige of the discipline	2.33	1.15	2.28	1.25	2.35	1.23	2.32	1.21
Risk of litigation and associated insurance costs	2.08	1.11	1.96	1.13	1.89	1.05	1.98	1.10
Influence of parents/relatives	1.93	1.11	1.90	1.13	1.82	1.06	1.89	1.10
Financial costs of medical school education and/or debt	1.73	0.99	1.76	1.10	1.74	0.99	1.74	1.03
Financial costs of vocational training	1.73	0.93	1.70	1.08	1.64	0.91	1.69	0.99
Other ¹	1.33	1.76	1.82	1.32	2.03	1.52	1.65	1.60

* 'General medical school experiences' was added to the set of responses in 2013
Base: all respondents)

¹ Indicative only, due to missing data

3.5. Medical programme and internships

Respondents' satisfaction with their medical programmes is presented in **Table 32**. The majority of respondents were either *satisfied* or *very satisfied* with their medical programme. Five percent of respondents were either *dissatisfied* or *very dissatisfied*.

Table 32. Satisfaction with medical programme

Satisfaction	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Very satisfied	50	16.5%	77	20.8%	59	19.6%	186	19.1%
Satisfied	193	63.7%	219	59.0%	181	60.1%	593	60.8%
Neither satisfied nor dissatisfied	41	13.5%	35	9.4%	39	13.0%	115	11.8%
Dissatisfied	12	4.0%	13	3.5%	11	3.7%	36	3.7%
Very dissatisfied	4	1.3%	5	1.3%	4	1.3%	13	1.3%
Total responses	300	99.0%	349	94.1%	294	97.7%	943	96.7%
Missing	3	1.0%	22	5.9%	7	2.3%	32	3.3%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Respondents were asked to list, in order of preference, the regions within New Zealand in which they have applied for an internship (**Table 33**).

Table 33. First preference for internship

Region	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Auckland	95	31.4%	106	28.6%	120	39.9%	321	32.9%
Bay of Plenty	33	10.9%	37	10.0%	22	7.3%	92	9.4%
Canterbury	24	7.9%	38	10.2%	31	10.3%	93	9.5%
Gisborne	7	2.3%	4	1.1%	4	1.3%	15	1.5%
Hawkes Bay	5	1.7%	13	3.5%	13	4.3%	31	3.2%
Manawatu-Wanganui	6	2.0%	11	3.0%	4	1.3%	21	2.2%
Marlborough	3	1.0%	3	0.8%	2	0.7%	8	0.8%
Nelson	8	2.6%	10	2.7%	8	2.7%	26	2.7%
Northland	14	4.6%	9	2.4%	11	3.7%	34	3.5%
Otago	14	4.6%	7	1.9%	7	2.3%	28	2.9%
Southland	3	1.0%	5	1.3%	5	1.7%	13	1.3%
Taranaki	8	2.6%	9	2.4%	12	4.0%	29	3.0%
Tasman	–	–	–	–	–	–	0	0.0%
Waikato-Taupo	21	6.9%	25	6.7%	19	6.3%	65	6.7%
Wellington region	35	11.6%	49	13.2%	25	8.3%	109	11.2%
Westland	–	–	–	–	–	–	0	0.0%

Region	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Country other than NZ	11	3.6%	7	1.9%	4	1.3%	22	2.3%
Total responses	287	94.7%	333	89.8%	287	95.3%	907	93.0%
Missing	16	5.3%	38	10.2%	14	4.7%	68	7.0%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 34. Second preference for internship

Region	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Auckland	110	36.3%	137	36.9%	143	47.5%	390	40.0%
Bay of Plenty	22	7.3%	24	6.5%	16	5.3%	62	6.4%
Canterbury	11	3.6%	21	5.7%	17	5.6%	49	5.0%
Gisborne	8	2.6%	6	1.6%	7	2.3%	21	2.2%
Hawkes Bay	12	4.0%	19	5.1%	12	4.0%	43	4.4%
Manawatu-Whanganui	8	2.6%	12	3.2%	4	1.3%	24	2.5%
Marlborough	7	2.3%	6	1.6%	4	1.3%	17	1.7%
Nelson	5	1.7%	7	1.9%	5	1.7%	17	1.7%
Northland	9	3.0%	4	1.1%	8	2.7%	21	2.2%
Otago	8	2.6%	5	1.3%	7	2.3%	20	2.1%
Southland	5	1.7%	2	0.5%	6	2.0%	13	1.3%
Taranaki	6	2.0%	22	5.9%	12	4.0%	40	4.1%
Tasman	1	0.3%	–	–	1	0.3%	2	0.2%
Waikato-Taupo	14	4.6%	16	4.3%	13	4.3%	43	4.4%
Wellington region	16	5.3%	31	8.4%	16	5.3%	63	6.5%
Westland	–	–	–	–	–	–	0	0.0%
Country other than NZ	9	3.0%	4	1.1%	4	1.3%	17	1.7%
Total responses	251	82.8%	316	85.2%	275	91.4%	842	86.4%
Missing	52	17.2%	55	14.8%	26	8.6%	133	13.6%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 35. Third preference for internship

Region	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Auckland	108	35.6%	129	34.8%	129	42.9%	366	37.5%
Bay of Plenty	18	5.9%	22	5.9%	19	6.3%	59	6.1%
Canterbury	14	4.6%	19	5.1%	19	6.3%	52	5.3%
Gisborne	3	1.0%	6	1.6%	6	2.0%	15	1.5%
Hawkes Bay	14	4.6%	14	3.8%	10	3.3%	38	3.9%
Manawatu-Whanganui	4	1.3%	13	3.5%	3	1.0%	20	2.1%
Marlborough	1	0.3%	2	0.5%	7	2.3%	10	1.0%
Nelson	7	2.3%	6	1.6%	6	2.0%	19	1.9%
Northland	5	1.7%	13	3.5%	8	2.7%	26	2.7%
Otago	6	2.0%	11	3.0%	13	4.3%	30	3.1%
Southland	4	1.3%	2	0.5%	3	1.0%	9	0.9%
Taranaki	8	2.6%	9	2.4%	7	2.3%	24	2.5%
Tasman	–	–	–	–	1	0.3%	1	0.1%
Waikato-Taupo	22	7.3%	25	6.7%	16	5.3%	63	6.5%
Wellington region	13	4.3%	18	4.9%	15	5.0%	46	4.7%
Westland	–	–	–	–	–	–	0	0.0%
Country other than NZ	4	1.3%	2	0.5%	5	1.7%	11	1.1%
Total responses	231	76.2%	292	78.7%	267	88.7%	790	81.0%
Missing	72	23.8%	79	21.3%	34	11.3%	185	19.0%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Table 36. Fourth preference for internship

Region	n	%	n	%	n	%	n	%
	2012	2012	2013	2013	2014	2014	total	total
Auckland	45	14.9%	56	15.1%	35	11.6%	136	13.9%
Bay of Plenty	18	5.9%	28	7.5%	31	10.3%	77	7.9%
Canterbury	11	3.6%	15	4.0%	22	7.3%	48	4.9%
Gisborne	6	2.0%	8	2.2%	8	2.7%	22	2.3%
Hawkes Bay	7	2.3%	10	2.7%	19	6.3%	36	3.7%
Manawatu-Whanganui	2	0.7%	9	2.4%	3	1.0%	14	1.4%
Marlborough	4	1.3%	5	1.3%	3	1.0%	12	1.2%
Nelson	7	2.3%	7	1.9%	7	2.3%	21	2.2%
Northland	4	1.3%	13	3.5%	13	4.3%	30	3.1%
Otago	5	1.7%	10	2.7%	3	1.0%	18	1.8%
Southland	1	0.3%	3	0.8%	–	–	4	0.4%

Region	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Taranaki	9	3.0%	9	2.4%	6	2.0%	24	2.5%
Tasman	–	–	–	–	1	0.3%	1	0.1%
Waikato-Taupo	32	10.6%	35	9.4%	62	20.6%	129	13.2%
Wellington region	13	4.3%	24	6.5%	20	6.6%	57	5.8%
Westland	–	–	–	–	–	–	0	0.0%
Country other than NZ	5	1.7%	2	0.5%	4	1.3%	11	1.1%
Total responses	169	55.8%	234	63.1%	237	78.7%	640	65.6%
Missing	134	44.2%	137	36.9%	64	21.3%	335	34.4%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

Respondents were then asked to indicate which region they had been accepted to undertake their internship (Table 37).

Table 37. Internship acceptance

Region	n 2012	% 2012	n 2013	% 2013	n 2014	% 2014	n total	% total
Auckland	85	28.1%	82	22.1%	88	29.2%	255	26.2%
Bay of Plenty	20	6.6%	28	7.5%	17	5.6%	65	6.7%
Canterbury	27	8.9%	39	10.5%	30	10.0%	96	9.8%
Gisborne	5	1.7%	7	1.9%	8	2.7%	20	2.1%
Hawkes Bay	10	3.3%	14	3.8%	13	4.3%	37	3.8%
Manawatu-Wanganui	13	4.3%	13	3.5%	10	3.3%	36	3.7%
Marlborough	4	1.3%	5	1.3%	3	1.0%	12	1.2%
Nelson	6	2.0%	7	1.9%	6	2.0%	19	1.9%
Northland	9	3.0%	10	2.7%	13	4.3%	32	3.3%
Otago	12	4.0%	10	2.7%	10	3.3%	32	3.3%
Southland	5	1.7%	5	1.3%	9	3.0%	19	1.9%
Taranaki	7	2.3%	10	2.7%	9	3.0%	26	2.7%
Tasman	–	–	–	–	1	0.3%	1	0.1%
Waikato-Taupo	24	7.9%	20	5.4%	22	7.3%	66	6.8%
Wellington region	29	9.6%	32	8.6%	22	7.3%	83	8.5%
Westland	–	–	–	–	–	–	0	0.0%
Country other than NZ	12	4.0%	7	1.9%	2	0.7%	21	2.2%
Total responses	268	88.4%	289	77.9%	263	87.4%	820	84.1%
Missing	35	11.6%	82	22.1%	38	12.6%	155	15.9%
Total	303	100.0%	371	100.0%	301	100.0%	975	100.0%

Base: all respondents

4. Discussion

This is the first report of cumulative national data on medical student demographics and career intentions at exit from New Zealand medical schools, based on the years 2012-2014.

Given the response rates and no reason to suggest the data are inherently biased, the data are robust. The main limitation is that these data reflect career intentions at exit from medical school and not actual practice. Actual career choices, and their influences will take several years to determine. Nonetheless, as they stand, these data give a flavour of the shape of the future NZ medical workforce.

These data allow a preliminary description and analysis of trends, with several broad conclusions possible:

1. Responses to most demographic and intention questions seem relatively stable over time.
2. Among the early trends are:
 - a. An increase in New Zealand citizens over time, along with fewer students on visas
 - b. More graduates wanting to practise in New Zealand, and in major cities
3. The proportion of students intending a career in General Practice is increasing, especially among students who have decided on their career (26% in 2014).
4. Most students, at graduation, are very undecided on a career choice. But even amongst these undecided students, the strongest preference was for General Practice (22%), with a further 10% listing this as their second or third preference.

To strengthen these findings several analyses are possible. These may point to demographic, curricular, or socio-political factors that might be amenable to change:

- Modelling based on the current data sets to find factors associated with specific career choices.
- Conduct paired analyses i.e. comparing career choices at the beginning of medical school with those at exit and in PGY1, 2, and 5 to see what changes, when it changes, and what factors are associated with those changes.
- Inclusion in the database of information about student electives and attachments during medical school.
- Comparison of these data with that published in the literature or from other New Zealand workforce surveys (MCNZ, MTB, HWNZ).
- Comparison of the location preferences of students with population proportions both now and in 10 years' time, as a way of assessing the match of future workforce to health needs.