

National report on doctors one year after graduating from New Zealand medical schools in 2011–2015

March 2019

Prepared by:

The New Zealand MSOD Steering Group.

University of Otago:

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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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EXECUTIVE SUMMARY

This report provides the findings from Medical Schools Outcomes Database (MSOD) questionnaires administered between 2012 and 2016 to doctors who had graduated from a New Zealand medical school the previous year. A total of 1,004 from the cohort of 1,980 doctors (51%) completed the survey.

Over this time there has been stability in the age of the doctors (median 25 years) as well as the proportion of women (~60%). The self-identified ethnicity of responders has remained relatively constant with underrepresentation of Māori and Pacific doctors.

One year after graduating, around 80% of doctors are satisfied or very satisfied with their medical programme, and around 90% are satisfied or very satisfied that their internship is preparing them for work as a doctor. Over 90% intend to work in New Zealand: 60% in a major city, 30% in a regional centre or large town, and the remainder in smaller areas or overseas.

Over the past five years the first preference for specialty shows very little change, with the top three preferences being General Practice, Surgery, and Internal Medicine. Between 50% and 60% of graduating students selected one of these three as their first-choice preference. It should be noted that there is still considerable uncertainty in career choice one year after graduation, with just over half reporting they had decided on a specialty. The great majority (83%) plan to undertake an additional year as a junior medical officer.

One year after graduation, doctors indicated training and the work environments influence their specialty preference with the highest ranked factors being *atmosphere/work culture typical of the discipline, influence of consultants/mentors* and *self-appraisal of own skills/aptitudes*, in addition to *interest in helping people*. By comparison, the least influential factors include *financial costs of vocational training, financial costs of medical school education and/or debt, perceived financial prospects* and *risk of litigation and associated insurance costs*.

INTRODUCTION

The Medical Schools Outcomes Database and Longitudinal Tracking Project (MSOD) is an on-going collaborative longitudinal study conducted by Medical Deans Australia and New Zealand (MDANZ). The project has been operating in New Zealand (NZ) since 2005 and has appropriate ethics committee approvals. The purpose of the MSOD is to gain a better understanding of the factors that influence career choices from selection to medical school, and throughout the continuum of training, to inform policy decisions of the various stakeholders in medical education and training.

In New Zealand, students are invited to complete surveys at entry to their medical school/programme (Year 2) 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). In coming years, data will be collected eight years after completion of medical studies (PGY8).

This report presents summary and trend data for five years (2012 to 2016) of those who graduated medical school from the University of Auckland or the University of Otago the previous year (PGY1 data). For more details on response rates and methods, see Appendices A and B. Note, not all students answered each question so the numbers in each table vary.

RESULTS

Demographics

Table 1. Gender of respondents

Gender	2012*		2013		2014		2015		2016	
	n	%	n	%	N	%	n	%	n	%
Female	90	65.7%	134	60.4%	115	61.5%	112	54.1%	141	59.0%
Male	47	34.3%	88	39.6%	72	38.5%	95	45.9%	98	41.0%
Total	137	100%	222	100%	187	100%	207	100%	239	100%

*Data from University of Otago graduates only;

Table 2. Age range of respondents

Age group†	2012*		2013		2014		2015		2016	
	n	%	n	%	N	%	n	%	n	%
Under 25 years	36	26.3%	53	24.0%	60	31.4%	50	23.8%	61	25.1%
25-29 years	87	63.5%	157	71.0%	111	58.1%	144	68.6%	160	65.8%
30-34 years	14	10.2%	9	4.1%	12	6.3%	11	5.2%	12	4.9%
35-39 years	–	–	1	0.5%	5	2.6%	1	0.5%	8	3.3%
40+ years and	–	–	1	0.5%	3	1.6%	4	1.9%	2	0.8%
Total responses	137	100%	221	100%	191	100%	210	100%	243	100%

*Data from University of Otago graduates only;

†Age calculated at 30 November in the year surveyed, grouped into five-year age ranges

Table 3. Median age and age range of respondents

Age in years†	2012*	2013	2014	2015	2016
Median	25	25	25	25	25
Minimum	23	23	23	23	23
Maximum	34	41	48	48	41

*Data from University of Otago graduates only; †Age calculated at 30 November in the year surveyed

Table 4. Self-identified ethnicity of domestic students

Ethnicity†	2012*		2013		2014		2015		2016	
	n	%	n	%	N	%	n	%	n	%
New Zealand European	86	62.8%	164	73.9%	135	70.3%	145	69.0%	171	70.4%
Māori	11	8.0%	21	9.5%	10	5.2%	16	7.6%	20	8.2%
Pacific peoples	4	2.9%	4	1.8%	8	4.2%	12	5.7%	4	1.6%
Other	53	38.7%	60	27.0%	59	30.7%	66	31.4%	74	30.5%

*Data from University of Otago graduates only;

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

Table 5. Citizenship of respondents

Citizenship	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
New Zealand citizen	113	83.7%	197	89.1%	174	91.6%	189	90.4%	231	95.5%
New Zealand Permanent Resident	9	6.7%	10	4.5%	11	5.8%	12	5.7%	6	2.5%
Australian citizen	4	3.0%	3	1.4%	1	0.5%	3	1.4%	2	0.8%
Student Visa holder†	9	6.7%	11	5.0%	4	2.1%	–	–	–	–
Visa holder†	–	–	–	–	–	–	5	2.4%	3	1.2%
Total	135	100%	221	100%	190	100%	209	100%	242	100%

*Data from University of Otago graduates only; †Immigration categories changed.

Relationships and dependents

Table 6. Relationship status of respondents

Relationship status	2012*		2013		2014		2015		2016	
	n	%	n	%	N	%	n	%	n	%
Single	64	46.7%	84	37.8%	74	38.9%	83	39.7%	88	36.2%
In a relationship but not living with partner	20	14.6%	43	19.4%	38	20.0%	41	19.6%	50	20.6%
Living with partner	36	26.3%	65	29.3%	58	30.5%	53	25.4%	72	29.6%
Married	16	11.7%	30	13.5%	20	10.5%	30	14.4%	31	12.8%
Separated	–	–	–	–	–	–	2	1.0%	–	–
Divorced	1	0.7%	–	–	–	–	–	–	–	–
Widowed	–	–	–	–	–	–	–	–	2	0.8%
Total	137	100%	222	100%	190	100%	209	100%	243	100%

*Data from University of Otago graduates only

Table 7. Number of children and other dependents

Dependents	2012*		2013		2014		2015		2016	
	n	%	n	%	N	%	n	%	n	%
Children										
0	132	96.4%	210	95.5%	185	96.9%	196	94.7%	225	93.8%
1	3	2.2%	7	3.2%	5	2.6%	5	2.4%	9	3.8%
2	1	0.7%	2	0.9%	1	0.5%	3	1.4%	4	1.7%
3 or more	1	0.7%	1	0.5%	–	–	3	1.4%	2	0.8%
Total	137	100%	220	100%	191	100%	207	100%	240	100%
Other dependents										
0	123	91.1%	203	92.3%	184	96.8%	192	94.6%	227	95.4%
1	9	6.7%	15	6.8%	5	2.6%	10	4.9%	9	3.8%
2	3	2.2%	1	0.5%	1	0.5%	1	0.5%	–	–
3 or more	–	–	1	0.5%	–	–	–	–	2	0.8%
Total	135	100%	220	100%	190	100%	203	100%	238	100%

*Data from University of Otago graduates only

Additional tertiary qualifications

Table 8. Number of additional university qualifications started, continued or completed since completing medical school

Qualifications started, continued or completed	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
0	188	87.0%	143	79.0%	166	79.8%	207	85.2%	188	87.0%
1	28	13.0%	36	19.9%	39	18.8%	34	14.0%	28	13.0%
2	–	–	2	1.1%	3	1.4%	2	0.8%	–	–
Total	216	100%	181	100%	208	100%	243	100%	216	100%

*Data from University of Otago graduates only

Current clinical placement situation

Table 9. Currently have a clinical placement within New Zealand

Clinical placement in New Zealand	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Yes	126	92.0%	212	96.4%	180	94.2%	199	97.1%	236	97.1%
No	11	8.0%	8	3.6%	11	5.8%	6	2.9%	7	2.9%
Total	137	100%	220	100%	191	100%	205	100%	243	100%

*Data from University of Otago graduates only

Table 10. For those not currently in clinical placement in New Zealand, intent to return to a clinical placement within New Zealand

Intend to return to a clinical placement in New Zealand	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Yes	4	36.4%	5	62.5%	7	53.8%	4	57.1%	4	57.1%
No	3	27.3%	1	12.5%	2	15.4%	1	14.3%	1	14.3%
Unsure	4	36.4%	2	25.0%	4	30.8%	2	28.6%	2	28.6%
Total	11	100.0%	8	100.0%	13	100%	7	100%	7	100%

*Data from University of Otago graduates only

Table 11. Current situation of those not currently in clinical placement in New Zealand

Current situation	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Working outside New Zealand in a clinical role	8	5.8%	4	1.8%	6	3.1%	2	1.0%	4	1.6%
Extended leave	2	1.5%	2	0.9%	1	0.5%	–	–	1	0.4%
Primary carer/parental leave	–	–	1	0.5%	–	–	2	1.0%	1	0.4%
Home duties / childcare	–	–	–	–	–	–	–	–	1	0.4%
Doing non-medical work in New Zealand	–	–	–	–	1	0.5%	2	1.0%	–	–
Working outside New Zealand in a non-medical role	1	0.7%	–	–	–	–	2	1.0%	–	–
Doing medical work in New Zealand that is non-clinical	1	0.7%	–	–	1	0.5%	–	–	–	–
Enrolled as a student	–	–	–	–	2	1.0%	–	–	–	–
Working outside New Zealand in a non-clinical, but medical role	–	–	–	–	1	0.5%	–	–	1	0.4%
Retired from medical activity	–	–	–	–	–	–	–	–	–	–

*Data from University of Otago graduates only

Table 12. Intentions for the second postgraduate year

Descriptor	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Undertake an additional year as a junior medical officer	–	–	174	79.8%	146	77.7%	175	84.1%	205	87.2%
Enter a vocational training programme	–	–	16	7.3%	23	12.2%	15	7.2%	18	7.7%
Go on a vacation/leave/ taking a break	–	–	14	6.4%	3	1.6%	5	2.4%	4	1.7%
Work outside New Zealand in a clinical role	–	–	5	2.3%	4	2.1%	3	1.4%	3	1.3%
Primary carer leave/ parental leave/ home duties/childcare	–	–	5	2.3%	4	2.1%	4	1.9%	1	0.4%
Continue a vocational training programme	–	–	1	0.5%	5	2.7%	5	2.4%	–	–
Undertake research	–	–	1	0.5%	1	0.5%	–	–	2	0.9%
Planning to return to do internship	–	–	1	0.5%	1	0.5%	–	–	1	0.4%
Leave medicine as a career	–	–	–	–	–	–	–	–	1	0.4%
Other	–	–	1	0.5%	1	0.5%	1	0.5%	–	–
Total	–	–	218	100%	188	100%	208	100%	235	100%

*Question added in 2013

Table 13. Intentions for the third postgraduate year

Descriptor	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Enter a vocational training programme	–	–	92	42.0%	67	34.9%	78	37.7%	76	32.3%
Undertake an additional year as a junior medical officer	–	–	70	32.0%	61	31.8%	80	38.6%	92	39.1%
Go on a vacation/leave/ taking a break	–	–	18	8.2%	23	12.0%	21	10.1%	36	15.3%
Continue a vocational training programme	–	–	11	5.0%	22	11.5%	15	7.2%	15	6.4%
Work outside New Zealand in a clinical role	–	–	10	4.6%	9	4.7%	8	3.9%	6	2.6%
Undertake research	–	–	2	0.9%	1	0.5%	1	0.5%	4	1.7%
Primary carer leave/ parental leave/ home duties/childcare	–	–	1	0.5%	3	1.6%	1	0.5%	1	0.4%
Do non-clinical/ non-medical work	–	–	2	0.9%	1	0.5%	2	1.0%	–	–
Enrol as a student in another course	–	–	2	0.9%	2	1.0%	–	–	1	0.4%
Planning to return to do internship	–	–	1	0.5%	1	0.5%	–	–	1	0.4%
Leave medicine as a career	–	–	–	–	–	–	–	–	1	0.4%
Other	–	–	10	4.6%	2	1.0%	1	0.5%	2	0.9%
Total	–	–	219	100%	192	100%	207	100%	235	100%

*Question added in 2013

Table 14. First preference of country of future practice

Country of future practice	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
New Zealand	119	90.2%	203	91.9%	182	95.3%	206	98.6%	217	95.2%
Country other than New Zealand	13	9.8%	18	8.1%	9	4.7%	3	1.4%	11	4.8%
Total	132	100%	221	100%	191	100%	209	100%	228	100%

*Data from University of Otago graduates only

Table 15. First preference for region of future practice

First preference for region of future practice	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Auckland	24	18.2%	67	30.3%	53	27.7%	49	23.4%	56	24.6%
Bay of Plenty	12	9.1%	20	9.0%	18	9.4%	15	7.2%	21	9.2%
Canterbury	25	18.9%	25	11.3%	25	13.1%	45	21.5%	48	21.1%
Gisborne	3	2.3%	4	1.8%	1	0.5%	1	0.5%	1	0.4%
Hawkes Bay	10	7.6%	4	1.8%	10	5.2%	7	3.4%	6	2.6%
Manawatu-Wanganui	3	2.3%	8	3.6%	2	1.0%	5	2.4%	2	0.9%
Marlborough	1	0.8%	–	–	–	–	3	1.5%	1	0.4%
Nelson	5	3.8%	12	5.4%	10	5.2%	5	2.4%	17	7.5%
Northland	3	2.3%	8	3.6%	4	2.1%	6	2.9%	6	2.6%
Otago	6	4.5%	9	4.1%	6	3.1%	12	5.8%	15	6.6%
Southland	5	3.8%	1	0.5%	2	1.0%	4	1.9%	3	1.3%
Taranaki	1	0.8%	5	2.3%	6	3.1%	8	3.9%	5	2.2%
Tasman	–	–	1	0.5%	–	–	–	–	1	0.4%
Waikato (inc. Taupo)	2	1.5%	9	4.1%	8	4.2%	12	5.8%	7	3.1%
Wellington region	18	13.6%	30	13.6%	37	19.4%	31	15.0%	27	11.8%
Westland	1	0.8%	–	–	–	–	–	–	1	0.4%
Country other than New Zealand	13	9.8%	18	8.1%	9	4.7%	3	1.5%	11	4.8%
Total	132	100%	221	100%	191	100%	206	100%	228	100%

*Data from University of Otago graduates only

Table 16. Preferred population centre size of future practice

Preferred population centre size	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Major city	70	58.3%	113	52.8%	119	64.3%	127	63.2%	133	58.1%
Regional city or large town	41	34.2%	79	36.9%	52	28.1%	55	27.4%	78	34.1%
Town	7	5.8%	14	6.5%	10	5.4%	12	6.0%	15	6.6%
Small town	2	1.7%	8	3.7%	4	2.2%	7	3.5%	3	1.3%
Total	120	100%	214	100%	185	100%	201	100%	229	100%

*Data from University of Otago graduates only

[Future medical specialty](#)

Table 17. Decided on future medical specialty

Decided on future medical specialty	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Yes	60	45.8%	104	47.1%	109	57.4%	126	60.3%	136	58.1%
No	71	54.2%	117	52.9%	81	42.6%	83	39.7%	98	41.9%
Total	131	100%	221	100%	190	100%	209	100%	234	100%

*Data from University of Otago graduates only

Table 18. First preference of medical specialty irrespective of whether a future medical specialty had been decided (ordered by 2016 ranks)

First preference of medical specialty	2012*		2013		2014		2015		2016	
	n=129		n=221		n=190		n=205		n=233	
	%	Rank†	%	Rank	%	Rank	%	Rank	%	Rank
General Practice	12.4%	3	19.5%	2	20.5%	1	24.4%	1	23.6%	1
Surgery	19.4%	1	16.7%	3	20.0%	2	19.5%	2	15.9%	2
Adult Medicine / Internal Medicine / Physician	17.1%	2	21.7%	1	17.4%	3	14.6%	3	15.0%	3
Anaesthesia	8.5%	6	6.3%	5	8.4%	4	6.8%	4	6.9%	4
Paediatrics and Child Health	9.3%	4=	10.0%	4	6.3%	6	4.4%	6=	5.6%	5=
Radiology	3.1%	8=	2.7%	7=	1.6%	10=	3.4%	9	5.6%	5=
Obstetrics and Gynaecology	9.3%	4=	3.6%	6	7.9%	5	2.9%	10	5.2%	7
Emergency Medicine	7.0%	7	2.7%	7=	2.6%	8=	5.9%	5	4.3%	8
Psychiatry	2.3%	10=	2.3%	9=	3.2%	7	1.5%		3.0%	9
Rural and Remote Medicine	–		2.3%	9=	1.6%	10=	4.4%	6=	2.6%	10
Other	1.6%		1.8%		1.1%		1.5%		2.1%	
Pathology	0.8%		0.9%		1.6%	10=	1.0%		1.7%	
Dual Vocational Training Programme	–		0.5%		0.5%		1.0%		1.7%	
Intensive Care Medicine	3.1%	8=	1.8%		2.6%	8=	0.5%		1.7%	
Ophthalmology	2.3%	10=	0.9%		0.5%		3.9%	8	1.3%	
Dermatology	2.3%	10=	1.4%		1.6%	10=	2.0%		0.9%	
Public Health Medicine	0.8%		1.8%		0.5%		1.0%		0.9%	
Sport and Exercise Medicine	–		0.9%		–		1.0%		0.9%	
Palliative Medicine	–		0.9%		0.5%		–		0.9%	
Sexual Health Medicine	–		0.5%		–		–		0.4%	
Rehabilitation Medicine	–		–		–		0.5%		–	
Oral and Maxillofacial Surgery	0.8%		–		0.5%		–		–	
Addiction Medicine	–		–		0.5%		–		–	
Non-Specialist Hospital Practice	–		–		0.5%		–		–	
Medical Administration (e.g. managing a hospital)	–		0.9%		–		–		–	
Total	100%		100%		100%		100%		100%	

*Data from University of Otago graduates only; †Only top 10 ranks given due to small numbers thereafter

Table 19. First preference of medical specialty for those who HAVE decided on a future medical specialty (ordered by 2016 ranks)

First preference of medical specialty	2012*		2013		2014		2015		2016	
	n=60		n=104		n=109		n=126		n=135	
	%	Rank†	%	Rank	%	Rank	%	Rank	%	Rank
General Practice	6.7%	5=	23.1%	1	18.3%	2	27.8%	1	25.9%	1
Surgery	21.7%	1	21.2%	2	24.8%	1	22.2%	2	21.5%	2
Adult Medicine / Internal Medicine / Physician	15.0%	3	19.2%	3	17.4%	3	14.3%	3	8.9%	3
Anaesthesia	10.0%	4	7.7%	4=	10.1%	4	4.0%	5=	6.7%	4
Radiology	3.3%	9=	2.9%	6=	2.8%	7=	4.0%	5=	5.9%	5
Obstetrics and Gynaecology	6.7%	5=	2.9%	6=	7.3%	5	3.2%	9	5.2%	6
Emergency Medicine	5.0%	7=	2.9%	6=	1.8%	9=	4.8%	4	3.7%	7=
Psychiatry	5.0%	7=	1.0%		2.8%	7=	–		3.7%	7=
Paediatrics and Child Health	16.7%	2	7.7%	4=	3.7%	6	4.0%	5=	3.0%	9=
Rural and Remote Medicine	–		1.9%		–		4.0%	5=	3.0%	9=
Pathology	1.7%		1.0%		1.8%	9=	1.6%		2.2%	
Intensive Care Medicine	3.3%	9=	–		1.8%	9=	0.8%		2.2%	
Dermatology	1.7%		1.0%		1.8%	9=	2.4%	10=	1.5%	
Ophthalmology	1.7%		1.0%		0.9%		2.4%	10=	1.5%	
Other	–		2.9%	6=	0.9%		1.6%		1.5%	
Sport and Exercise Medicine	–		–		–		0.8%		1.5%	
Palliative Medicine	–		–		–		–		1.5%	
Dual Vocational Training Programme	–		–		0.9%		1.6%		0.7%	
Rehabilitation Medicine	–		–		–		0.8%		–	
Public Health Medicine	1.7%		2.9%	6=	0.9%		–		–	
Addiction Medicine	–		–		0.9%		–		–	
Oral and Maxillofacial Surgery	–		–		0.9%		–		–	
Medical Administration (e.g. managing a hospital)	–		1.0%		–		–		–	
Total	100%		100%		100%		100%		100%	

*Data from University of Otago graduates only; †Only top 10 ranks given due to small numbers thereafter

Table 20. First preference of medical specialty for those who HAVE NOT decided on a future medical specialty (ordered by 2016 ranks)

First preference of medical specialty	2012*		2013		2014		2015		2016	
	n=69		n=117		n=81		n=79		n=98	
	%	Rank†	%	Rank	%	Rank	%	Rank	%	Rank
Adult Medicine / Internal Medicine / Physician	18.8%	1	23.9%	1	17.3%	2	15.2%	2=	23.5%	1
General Practice	17.4%	2=	16.2%	2	23.5%	1	19.0%	1	20.4%	2
Paediatrics and Child Health	2.9%	7=	12.0%	4	9.9%	4	5.1%	7=	9.2%	3
Surgery	17.4%	2=	12.8%	3	13.6%	3	15.2%	2=	8.2%	4
Anaesthesia	7.2%	6	5.1%	5	6.2%	6	11.4%	4	7.1%	5
Emergency Medicine	8.7%	5	2.6%	9=	3.7%	7=	7.6%	5	5.1%	6=
Obstetrics and Gynaecology	11.6%	4	4.3%	6	8.6%	5	2.5%	10=	5.1%	6=
Radiology	2.9%	7=	2.6%	9=	–	–	2.5%	10=	5.1%	6=
Other	2.9%	7=	0.9%	–	1.2%	–	1.3%	–	3.1%	9=
Dual Vocational Training Programme	–	–	0.9%	–	–	–	–	–	3.1%	9=
Rural and Remote Medicine	–	–	2.6%	9=	3.7%	7=	5.1%	7=	2.0%	–
Psychiatry	–	–	3.4%	7=	3.7%	7=	3.8%	9	2.0%	–
Public Health Medicine	–	–	0.9%	–	–	–	2.5%	10=	2.0%	–
Ophthalmology	2.9%	7=	0.9%	–	–	–	6.3%	6	1.0%	–
Intensive Care Medicine	2.9%	7=	3.4%	7=	3.7%	7=	–	–	1.0%	–
Pathology	–	–	0.9%	–	1.2%	–	–	–	1.0%	–
Sexual Health Medicine	–	–	0.9%	–	–	–	–	–	1.0%	–
Dermatology	2.9%	7=	1.7%	–	1.2%	–	1.3%	–	–	–
Sport and Exercise Medicine	–	–	1.7%	–	–	–	1.3%	–	–	–
Palliative Medicine	–	–	1.7%	–	1.2%	–	–	–	–	–
Non-Specialist Hospital Practice	–	–	–	–	1.2%	–	–	–	–	–
Medical Administration (e.g. managing a hospital)	–	–	0.9%	–	–	–	–	–	–	–
Oral and Maxillofacial Surgery	1.4%	–	–	–	–	–	–	–	–	–
Total	100%		100%		100%		100%		100%	

*Data from University of Otago graduates only; †Only top 10 ranks given due to small numbers thereafter

Table 21. Interest in medical teaching

Interest in medical teaching	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Yes	88	66.2%	160	72.7%	137	71.7%	157	75.5%	170	73.9%
No	9	6.8%	15	6.8%	10	5.2%	12	5.8%	10	4.3%
Undecided	36	27.1%	45	20.5%	44	23.0%	39	18.8%	50	21.7%
Total	133	100%	220	100%	191	100%	208	100%	230	100%

*Data from University of Otago graduates only

Table 22. Interest in research

Interest in research	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Yes	59	44.4%	118	53.6%	105	55.3%	117	56.3%	112	48.7%
No	32	24.1%	35	15.9%	32	16.8%	37	17.8%	44	19.1%
Undecided	42	31.6%	67	30.5%	53	27.9%	54	26.0%	74	32.2%
Total	133	100%	220	100%	190	100%	208	100%	230	100%

*Data from University of Otago graduates only

Table 23. Certainty of practising in most preferred medical specialty

Certainty of practising most preferred medical specialty	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Absolutely certain	21	15.8%	33	15.1%	23	12.1%	35	16.8%	33	14.3%
Moderately certain	62	46.6%	116	53.0%	108	56.8%	119	57.2%	132	57.1%
Not at all certain	50	37.6%	70	32.0%	59	31.1%	54	26.0%	66	28.6%
Total	133	100%	219	100%	190	100%	208	100%	231	100%

*Data from University of Otago graduates only

Factors influencing specialty choice

Respondents were asked to rate on a scale from 1 (=not at all) to 5 (=a great deal) how a certain factor would influence their most preferred specialty.

Table 24. Factors influencing choice of specialty (ordered by 2016 ranks)

Factor influencing choice of specialty	2012*		2013		2014		2015		2016	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Atmosphere/work culture typical of the discipline:	4.19	1	4.08	1	3.93	1	4.1	1	4.11	1
Influence of training experiences (e.g. mentors, consultants) as a doctor†:	–	–	3.91	2	3.85	2	3.9	2	4.00	2
Interest in helping people:	3.65	6	3.87	3	3.85	3	3.8	3	3.88	3
Self-appraisal of own skills/aptitudes:	3.92	2	3.80	5	3.78	4	3.6	6	3.79	4
Intellectual content of the specialty:	3.92	3	3.83	4	3.76	5	3.7	4	3.72	5
Perceived opportunity to work flexible hours:	3.73	5	3.55	8	3.37	10	3.6	7	3.67	6
Opportunity for procedural work†:	–	–	3.50	10	3.58	7	3.5	8	3.66	7
Perceived amount of working hours†:	–	–	3.61	6	3.37	11	3.7	5	3.61	8
Work experience since graduation:	3.61	7	3.40	11	3.55	8	3.5	9	3.53	9
Experience of specialty as a medical student†:	–	–	3.59	7	3.63	6	3.4	10	3.52	10
Type of patients typical of the discipline:	3.73	4	3.52	9	3.49	9	3.4	11	3.48	11
Self-appraisal of own domestic circumstances:	3.47	9	3.33	12	3.16	13	3.2	12	3.40	12
General medical school experiences (e.g. mentors, discipline placements):	3.42	10	3.14	13	3.35	12	3.1	13	3.33	13
Availability of a vocational training placement:	2.88	11	3.03	16	2.88	16	2.9	16	3.09	14
Perceived job security†:	–	–	3.08	14	3.01	15	3.1	14	3.04	15
Other reasons:	2.45	15	2.19	21	1.98	22	1.9	22	3.03	16
Perceived career advancement prospects:	3.52	8	3.04	15	3.05	14	3.0	15	3.02	17
Geographical location of most preferred specialty†:	–	–	2.75	17	2.57	17	2.7	17	2.81	18
Opportunity for research and/or teaching:	2.51	13	2.65	18	2.51	18	2.6	19	2.80	19
Number of years required to complete training:	2.68	12	2.59	19	2.43	19	2.6	18	2.71	20
Perceived financial prospects:	2.46	14	2.42	20	2.33	20	2.4	20	2.53	21

Factor influencing choice of specialty	2012*		2013		2014		2015		2016	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Perceived prestige of the discipline:	2.32	16	2.15	22	2.09	21	2.2	21	2.17	22
Influence of parents/relatives:	1.76	17	1.78	23	1.75	23	1.8	23	2.01	23
Risk of litigation and associated insurance costs:	1.75	18	1.78	24	1.61	24	1.6	24	1.74	24
Financial costs of medical school education and/or debt†:	–	–	1.58	25	1.49	25	1.5	25	1.73	25
Financial costs of vocational training:	1.71	19	1.45	26	1.39	26	1.4	26	1.55	26

*Data from University of Otago graduates only; †question not asked in 2012

Internships

Table 25. Location of internship

Location of internship	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Auckland	–	–	58	27.5%	41	21.4%	45	22.8%	52	21.7%
Bay of Plenty	–	–	18	8.5%	13	6.8%	17	8.6%	19	7.9%
Blenheim	–	–	–	–	1	0.5%	–	–	–	–
Canterbury	–	–	24	11.4%	29	15.1%	38	19.3%	50	20.8%
Christchurch	–	–	–	–	1	0.5%	–	–	–	–
Gisborne	–	–	6	2.8%	5	2.6%	1	0.5%	3	1.3%
Hamilton	–	–	6	2.8%	6	3.1%	–	–	–	–
Hawke's Bay	–	–	7	3.3%	11	5.7%	11	5.6%	10	4.2%
Manawatu-Whanganui	–	–	13	6.2%	9	4.7%	11	5.6%	16	6.7%
Marlborough	–	–	4	1.9%	4	2.1%	3	1.5%	2	0.8%
Nelson	–	–	9	4.3%	8	4.2%	6	3.0%	10	4.2%
New Plymouth	–	–	1	0.5%	–	–	–	–	–	–
Northland	–	–	–	–	5	2.6%	5	2.5%	1	0.4%
Otago	–	–	14	6.6%	6	3.1%	10	5.1%	19	7.9%
Palmerston North	–	–	1	0.5%	–	–	–	–	–	–
Southland	–	–	3	1.4%	2	1.0%	6	3.0%	7	2.9%
Taranaki	–	–	5	2.4%	6	3.1%	7	3.6%	5	2.1%
Tasman	–	–	–	–	–	–	1	0.5%	1	0.4%
Tauranga	–	–	4	1.9%	3	1.6%	–	–	–	–
Waikato	–	–	5	2.4%	3	1.6%	9	4.6%	12	5.0%
Wellington region	–	–	27	12.8%	25	13.0%	27	13.7%	31	12.9%
Whakatane	–	–	1	0.5%	–	–	–	–	–	–
Whangarei	–	–	4	1.9%	3	1.6%	–	–	–	–
Country other than New Zealand	–	–	1	0.5%	–	–	–	–	2	0.8%
Total	–	–	211	100%	192	100%	197	100%	240	100%

*Question not asked in 2012

Table 26. Additions to core rotations

Addition to core rotation	2012*		2013		2014		2015		2016	
	n=137		n=222		n=192		n=210		n=243	
	n	%	n	%	n	%	n	%	n	%
Community	1	0.7%	7	3.2%	5	2.6%	9	4.3%	14	5.8%
Rural medicine	6	4.4%	10	4.5%	8	4.2%	15	7.1%	12	4.9%
General practice	4	2.9%	14	6.3%	13	6.8%	27	12.9%	32	13.2%
Psychiatry	27	19.7%	57	25.7%	41	21.4%	67	31.9%	68	28.0%

*Data from University of Otago graduates only

Table 27. Geographic location of core rotations

Location of core rotations	2012*		2013		2014		2015		2016	
	n=137		n=222		n=192		n=210		n=243	
	n	%	n	%	n	%	n	%	n	%
Major city	64	46.7%	137	61.7%	129	67.2%	128	61.0%	163	67.1%
Regional centre	50	36.5%	69	31.1%	85	44.3%	72	34.3%	81	33.3%
Small town / community	10	7.3%	20	9.0%	43	22.4%	18	8.6%	26	10.7%

*Data from University of Otago graduates only

Table 28. “My basic medical degree prepared me for my work as a doctor”

Response	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Strongly agree	18	15.9%	23	10.8%	14	7.7%	21	10.6%	22	9.1%
Agree	62	54.9%	137	64.6%	121	66.9%	118	59.3%	172	70.8%
Neutral	24	21.2%	39	18.4%	36	19.9%	38	19.1%	32	13.2%
Disagree	8	7.1%	10	4.7%	10	5.5%	18	9.0%	14	5.8%
Strongly disagree	1	0.9%	3	1.4%	–	–	4	2.0%	3	1.2%
Total	113	100%	212	100%	181	100%	199	100%	243	100%

*Data from University of Otago graduates only

Table 29. “My internship is preparing me for my work as a doctor”

Response	2012*		2013		2014		2015		2016	
	n	%	n	%	n	%	n	%	n	%
Strongly agree	–	–	88	41.5%	79	43.6%	78	39.6%	99	40.9%
Agree	–	–	106	50.0%	96	53.0%	104	52.8%	131	54.1%
Neutral	–	–	12	5.7%	4	2.2%	8	4.1%	7	2.9%
Disagree	–	–	5	2.4%	2	1.1%	6	3.0%	4	1.7%
Strongly disagree	–	–	1	0.5%	–	–	1	0.5%	1	0.4%
Total	–	–	212	100%	181	100%	197	100%	242	100%

*Question added in 2013

Appendix A: Response rate

The number of doctors graduating from the Universities of Otago and Auckland between 2011 and 2015 was 1,980. These cohorts were eligible to participate in the MSOD one year after graduation surveys (PGY1), and every effort was made to contact everyone in the pool. The number of respondents across the time period 2012 to 2016 was 1,004 giving an overall response rate of 51%. The response rates for each graduating year are presented in Table 30. Given the two universities cover different geographical areas, the low response rate from the University of Auckland is likely skewing location intentions.

Table 30. Response rate by university of students completing study (pool) and questionnaires (PGY1)

Medical School/ Programme		2012		2013		2014		2015		2016	
		n	%	n	%	n	%	n	%	n	%
University of Auckland	PGY1	–	–	65	33.9%	49	25.5%	40	21.5%	47	23.9%
	Pool	–	–	192		192		186		197	
University of Otago	PGY1	137	56.4%	157	64.6%	143	57.9%	170	71.1%	196	79.4%
	Pool	237		243		247		239		247	
Total	PGY1	137	56.4%	222	51.0%	192	43.7%	210	49.4%	243	54.7%
	Pool	237		435		439		425		444	

Table 31. Number of respondents by university

Medical School/ Programme		2012		2013		2014		2015		2016	
		n	%	n	%	n	%	n	%	n	%
University of Auckland	–	–	65	29.3%	49	25.5%	40	19.0%	47	19.3%	
University of Otago	137	100%	157	70.7%	143	74.5%	170	81.0%	196	80.7%	
Total	137	100%	222	100%	192	100%	210	100%	243	100%	

Appendix B: Method

In 2012 the University of Otago conducted the first survey of doctors one year after graduation. Additional questions were added for the 2013 survey of both University of Otago and University of Otago graduates. The questionnaire has since remained stable throughout this reporting period, and gathers respondent information about basic demographics, future medical practice, and internship placements. The majority of the questions are quantitative.

University of Otago study data were collected and managed using the Research Electronic Data Capture (REDCap) tool hosted at the University of Otago¹. REDCap is a secure, web-based application designed to support data capture for research studies, providing 1) an intuitive interface for validated data entry; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for importing data from external sources.

University of Auckland administered a paper version of the questionnaire to their graduates.

The two sets of data from each year were combined to form national data sets.

¹ Paul A. Harris, Robert Taylor, Robert Thielke, Jonathon Payne, Nathaniel Gonzalez, Jose G. Conde, Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support, *J Biomed Inform.* 2009 Apr;42(2):377-81