msod

medical schools outcomes database

NATIONAL DATA REPORT 2013-2017

DATA FROM GRADUATES OF AUSTRALIAN MEDICAL SCHOOLS

SEPTEMBER 2018

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MEDICAL SCHOOLS OUTCOMES DATABASE

National Data Report 2013-17

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BACKGROUND

The Medical Schools Outcomes Database (MSOD) is an annual national data collection run by Medical Deans Australia and New Zealand (Medical Deans). The data is collected through an annual survey administered to final-year medical students from all medical schools across Australia. The survey collects information on graduate demographics, previous and current education, medical school experiences, rural background, career intentions and practice preferences.

The MSOD project commenced in 2005 and has been run each year, providing a valuable, unique national resource of comprehensive data and insight on Australian medical graduates.

The MSOD currently contains over 32,000 participants and is stored and managed by the Australian Institute of Health and Welfare (AIHW) on behalf of Medical Deans.

Medical Deans would like to express our thanks to all the graduates over the years who have taken time to provide data and contribute to the development of this resource, to inform and shape the development of evidence-based and effective medical education policy.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This report provides the findings that have been captured by the 2017 Medical Schools Outcomes Database (MSOD) survey, with data presented from the periods 2013 to 2017. 58% of graduating students from medical schools across Australia (2,147) responded to this survey which was administered in the latter part of 2017.

Two new tables have been added into this year's report – rural background (Table 7) and rural club membership (Table 14) – reflecting the ongoing work to encourage, develop and train graduates with an interest in future rural practice. Nearly 36% of medical graduates expressed their preference for future practice outside a capital city. There has consistently been a gradual increase to this number, with a 2.1% increase from the previous year. This statement from the future medical workforce provides an important opportunity to design and implement policies and strategies to realise this potential and grow the number of doctors living and working in regional and rural Australia.

This positive outcome, and the continuing high numbers of students coming from a rural background (23% in 2017) and strong levels of participation in rural clubs (38% in 2017), reflects the work undertaken by medical schools on aspects such as student selection policies, ensuring well-supported, stimulating and rewarding rural clinical placements, fostering positive perspectives and attitudes to rural practice, and delivering substantial levels of training in regionally-based settings.

This year's report shows very little change to graduates' preferred specialty (Table 21), with the top 13 mirroring last year's responses. Neither have there been any changes to the responses about the factors that influence graduate preference of future specialty; with "atmosphere/work culture typical of the discipline" topping the list for the last 5 years. The desire to have a career involving teaching and/or research remains very high, and over 43% also want Indigenous health as a part of their future clinical practice.

The levels of satisfaction with the program at their medical school remain consistently high. Responses this year show a slight increase in the proportion who were either very satisfied or satisfied and very dissatisfied or dissatisfied. Similarly, although there was a slight increase in those disagreeing or strongly disagreeing, nearly three quarters of graduates agreed or strongly agreed that their medical degree prepared them well to work as an intern.

SECTION 1: DEMOGRAPHICS

Graduate Age

Graduating students in 2017 were most commonly aged between 25 to 29 years old, with over 47% of respondents falling into this category (Table 1). Nearly 85% of graduates were aged under 30 years old. Only 1.3% of respondents were over the age of 40, which was the lowest proportion of over-40s in this data range.

Table 1. Respondents by age group

Age	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
<25	1,191	41.7	1,002	40.5	807	40.4	794	35.1	799	37.3
25-29	1,312	45.9	1,114	45.0	905	45.3	1,084	48.0	1,014	47.3
30-34	218	7.6	242	9.8	194	9.7	278	12.3	225	10.5
35-39	79	2.8	71	2.9	60	3.0	60	2.7	79	3.7
40-44	34	1.2	26	1.1	17	0.9	28	1.2	17	0.8
45+	25	0.9	18	0.7	17	0.9	15	0.7	10	0.5
Total	2,859	100.0	2,473	100.0	2,000	100.0	2,259	100.0	2,144	100.0

The median age of respondents was 25 years old (Table 2). The 2017 cohort had the youngest minimum age (19) since 2014 and youngest maximum age (54) in this range of data.

Table 2. Median age and age range of respondents

Age	2013	2014	2015	2016	2017
Median	25	25	25	25	25
Minimum	20	18	20	20	19
Maximum	57	63	60	55	54

Relationship and Dependants

The proportion of respondents identifying as having a partner has remained consistent across the previous five years (Table 3). The data shows that 48% of graduating students from the 2017 cohort were partnered (i.e. in a relationship or married) at the time of completing the survey, with this figure varying by less than 1 percentage point across the previous 5 years.

Table 3. Partner status

Marital status	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Not partnered	1,500	52.6	1,281	51.7	1,025	51.1	1,185	52.4	1,114	51.9
Partnered	1,350	47.4	1,199	48.3	982	48.9	1,078	47.6	1,033	48.1
Total	2,850	100.0	2,480	100.0	2,007	100.0	2,263	100.0	2,147	100.0

The vast majority of respondents had no dependant children (Table 4). This number remains consistently around this high level. Compared to the previous four cohorts, the 2017 graduates had the highest proportion of students stating they had no “other dependents” (98%).

Table 4. Number of dependant children and other dependants

Dependant children & other dependants	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Children										
0	2,697	94.8	2,273	92.0	1,874	95.6	2,109	95.2	2,021	95.6
1	62	2.2	125	5.1	39	2.0	52	2.3	42	2.0
2	50	1.8	42	1.7	32	1.6	30	1.4	37	1.8
3 or more	36	1.3	31	1.3	16	0.8	25	1.1	13	0.6
Total	2,845	100.0	2,471	100.0	1,961	100.0	2,216	100.0	2,113	100.0
Other dependants										
0	2,773	97.5	2,327	94.2	1,880	95.9	2,161	97.5	2,070	98.0
1	49	1.7	126	5.1	62	3.2	41	1.9	33	1.6
2	10	0.4	12	0.5	13	0.7	6	0.3	6	0.3
3 or more	13	0.5	6	0.2	6	0.3	8	0.4	4	0.2
Total	2,845	100.0	2,471	100.0	1,961	100.0	2,216	100.0	2,113	100.0

Country of birth

Just over 64% of graduating students in 2017 were born in Australia, the highest percentage of Australian-born respondents across the last five years (Table 5). The next four most common countries of birth are unchanged from 2016; Singapore, Canada, United States of America and Malaysia. The numbers from Canada have gradually increased and the numbers from Malaysia have dropped somewhat, particularly between 2014 and 2015. The marked increase of final year students indicating their country of birth as the United States of America in 2016 can be explained by that year being the first time substantial numbers had graduated from the US-based Ochsner campus of the University of Queensland.

Table 5. Country of birth

Birth Country	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Australia	1,646	63.4	1,538	62.9	1,283	63.9	1,377	60.8	1,380	64.3
Singapore	107	4.1	98	4.0	80	4.0	111	4.9	92	4.3
Canada	57	2.2	65	2.7	89	4.4	88	3.9	80	3.7
United States of America	32	1.2	33	1.3	32	1.6	108	4.8	68	3.2
Malaysia	109	4.2	126	5.2	69	3.4	62	2.7	57	2.7
England	46	1.8	43	1.8	49	2.4	45	2.0	51	2.4
China (excludes SARs and Taiwan)	88	3.4	61	2.5	52	2.6	41	1.8	51	2.4
India	77	3.0	67	2.7	37	1.8	59	2.6	51	2.4
New Zealand	59	2.3	62	2.5	57	2.8	55	2.4	48	2.2
South Africa	26	1.0	40	1.6	26	1.3	29	1.3	28	1.3
Other	348	13.4	313	12.8	233	11.6	288	12.7	241	11.2
Total	2,595	100.0	2,446	100.0	2,007	100.0	2,263	100.0	2,147	100.0

Sources of income

Graduating medical students were asked to indicate sources of income support for their medical school education and/ or living expenses throughout the entirety of their degree (Table 6). Similar to previous years, a majority of respondents in 2017 relied on family (72%) or government (64%) support. However in the last year, the numbers of students who declared they were in paid employment and who have student loans have both increased quite substantially. The increase seen last year in the use of savings and trust funds was sustained this year, and the numbers of students with a personal loan continues to gradually rise. With the exception of scholarships in 2015, all numbers in 2017 were the highest in the data range shown.

Table 6. Sources of income for education and/or living expenses for entire medical degree

Income sources	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Family	1,944	67.7	1,688	67.7	1,412	70.4	1,588	70.2	1,546	72.0
Government	1,711	59.6	1,499	60.1	1,205	60.0	1,412	62.4	1,367	63.7
Paid employment	1,436	50.0	1,219	48.9	1,019	50.8	1,117	49.4	1,194	55.6
HECS / FEE / OS HELP loan	1,193	41.5	1,036	41.6	799	39.8	978	43.2	1,062	49.5
Scholarship	696	24.2	631	25.3	605	30.1	640	28.3	623	29.0
Savings/Trust fund	441	15.4	357	14.3	293	14.6	418	18.5	432	20.1
Personal Loan	285	9.9	270	10.8	245	12.2	320	14.1	330	15.4

Rural background

Table 7 reveals that close to 24% of the 2017 MSOD respondents considered themselves as coming from a rural background. This is an increase from the 20% of respondents indicating this in 2014 and is likely to reflect the continuing work of medical schools to recruit and graduate rural medical students.

Table 7. Respondent considers themself to come from a rural background

Rural Background	2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	474	19.5	467	23.3	539	23.9	508	23.7
No	1,961	80.5	1,538	76.7	1,719	76.1	1,638	76.3
Total	2,435	100.0	2,005	100.0	2,258	100.0	2,146	100.0

23% of students who finished their final year of secondary schooling in Australia did so in a regional area (Table 8). This has grown slightly over the last 4 years, but remains fairly consistent.

Table 8. Final year of secondary schooling in a regional area

Final year of school regional	2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	372	20.0	413	23.4	481	24.4	482	22.9
No	1,484	80.0	1,355	76.6	1,491	75.6	1,621	77.1
Total	1,856	100.0	1,768	100.0	1,972	100.0	2,103	100.0

Note: Excludes students whose final year of schooling was overseas

Location of longest residence in Australia

The MSOD survey asks participants about the type of location they have lived in the longest if they had lived in Australia for more than one year. Table 9 shows that just over 70% of graduating students in 2017 lived the longest in a capital city. The data reflects fairly closely that from the Australian Bureau of Statistics which shows that just under 33% of Australians are currently living outside of a capital city[1].

Table 9. Location where students have lived the longest (for domestic students living in Australia for more than one year)

Location of longest residence[2]	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Capital city	1,582	70.0	1,847	75.8	1,372	69.0	1,595	71.4	1,507	70.6
Major urban centre	197	8.7	194	8.0	231	11.6	203	9.1	226	10.6
Regional city or large town	189	8.4	161	6.6	154	7.7	194	8.7	163	7.6
Smaller town	114	5.0	107	4.4	84	4.2	119	5.3	113	5.3
Small community	179	7.9	128	5.3	148	7.4	122	5.5	125	5.9
Total	2,261	100.0	2,437	100.0	1,989	100.0	2,233	100.0	2,134	100.0

1 Australian Bureau of Statistics 2016, 'National', viewed 23 July 2018, http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Snapshot%20of%20Australia,%202016~2

2 Classification: Major urban centre – (>100,000 population size) e.g. Cairns, Geelong, Gold Coast–Tweed Heads, Gosford, Newcastle, Townsville, Wollongong, Wyong; Regional city or large town (25,000 - 99,999 population size) e.g. Alice Springs, Ballarat, Bunbury, Dubbo, Launceston, Mount Gambier; Smaller town (10,000 – 24,999 population size); Small community (<10,000 population size)

SECTION 2: PREVIOUS EDUCATION

Level of previous degree

Approximately two-thirds (67%) of respondents in 2017 indicated they had completed previous tertiary-level education. For 92% of graduating students this was at a Degree/ Certificate level, which has been consistent over these last 5 years (Table 10a). The number of graduates with a previous Masters degree dropped, whilst nearly 3% of respondents had completed a PhD which is similar to 2013 levels.

Table 10a. Highest level previous degree (based on data collected at commencement)

Highest level previous degree	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Degree/Certificate	1,224	92.7	1,185	91.3	987	91.6	1,229	91.0	1,065	92.0
Masters	57	4.3	94	7.2	70	6.5	98	7.3	61	5.3
PHD	40	3.0	19	1.5	21	1.9	23	1.7	32	2.8
Total	1,321	100.0	1,298	100.0	1,078	100.0	1,350	100.0	1,158	100.0

In 2014, the question regarding the highest level of previous degree was expanded to provide more response options to choose from, as shown in Table 10b. Whilst numbers are relatively stable, the percentage of graduating students who had previously completed a Bachelor degree with Honours dropped from 26% in 2014 to 21% in the 2017 cohort, whilst there has been a gradual increase in those with a diploma or certificate however these numbers remain small.

Table 10b. Highest level previous degree (based on data collected at graduation)

Highest level previous degree	2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Postgraduate degree	146	10.1	107	8.8	144	9.5	138	9.6
Graduate diploma or graduate certificate	48	3.3	38	3.1	56	3.7	53	3.7
Bachelor degree (honours)	372	25.7	275	22.7	322	21.3	299	20.8
Bachelor degree	843	58.3	748	61.7	942	62.3	880	61.2
Diploma	13	0.9	24	2.0	18	1.2	26	1.8
Certificate	24	1.7	21	1.7	31	2.0	43	3.0
Total	1,446	100.0	1,213	100.0	1,513	100.0	1,439	100.0

Note: This level of detail was only asked from the 2014 survey onwards.

Discipline of previous degree

As in previous years, the most common discipline of highest completed tertiary degree was Science (38%) and Medical science (30%). Students who had completed a previous degree in the Health/Allied Health discipline were slightly fewer in this 2017 cohort at 16%, compared to 20% in 2013. The figures have remained fairly consistent in the other fields, with some variability in Physical Sciences.

Table 11a. Discipline of highest previous degree (based on data collected at commencement).

Discipline of highest previous degree	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Science	518	39.2	439	33.8	395	36.6	530	39.3	440	38.0
Medical science	313	23.7	347	26.7	295	27.4	333	24.7	345	29.8
Health/Allied health	267	20.2	266	20.5	216	20.0	231	17.1	186	16.1
Humanities	113	8.6	103	7.9	84	7.8	112	8.3	87	7.5
Commerce/Business/Law	54	4.1	69	5.3	34	3.2	54	4.0	48	4.1
Physical sciences	33	2.5	57	4.4	39	3.6	41	3.0	17	1.5
Other/Unknown	23	1.7	18	1.4	15	1.4	49	3.6	35	3.0
Total	1,321	100.0	1,299	100.0	1,078	100.0	1,350	100.0	1,158	100.0

From 2014, the MSOD survey captured the discipline of the highest previous degree data for graduating students and provided more discipline-specific options for respondents to select (Table 11b). Almost half of all graduating students in 2017 who had completed a previous degree had done so in Natural and Physical Sciences (50%), while 40% completed a degree in a health-related discipline. Medical studies (18%), Pharmacy (4.4%) and Rehabilitation Therapies (4.3%) were the most common health-specific degrees completed.

Table 11b. Discipline of highest previous degree (based on data collected at graduation)

Discipline of highest previous degree	2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Natural and Physical Sciences	680	48.2	568	47.7	690	46.4	700	49.7
Health Total*	558	39.5	485	40.8	588	39.5	567	40.2
-- Medical studies	218	15.4	169	14.2	240	16.1	246	17.5
-- Complementary Therapies	4	0.3	5	0.4	8	0.5	6	0.4
-- Dental Studies	9	0.6	13	1.1	9	0.6	4	0.3
-- Nursing / Midwifery	28	2.0	31	2.6	46	3.1	33	2.3
-- Optical Science	13	0.9	4	0.3	1	0.1	9	0.6
-- Pharmacy	84	5.9	68	5.7	75	5.0	62	4.4
-- Rehabilitation Therapies	88	6.2	63	5.3	72	4.8	60	4.3
-- Radiography	16	1.1	20	1.7	12	0.8	17	1.2
-- Public Health	23	1.6	31	2.6	39	2.6	46	3.3
-- Veterinary Studies	10	0.7	9	0.8	4	0.3	7	0.5
-- Other Health	57	4.0	54	4.5	66	4.4	62	4.4
Society and Culture	131	9.3	88	7.4	119	8.0	118	8.4
Management and Commerce	59	4.2	37	3.1	65	4.4	70	5.0
Engineering and Related Technologies	67	4.7	46	3.9	60	4.0	44	3.1
Creative Arts	39	2.8	33	2.8	48	3.2	41	2.9
Education	21	1.5	10	0.8	21	1.4	19	1.3
Mixed Field Programmes	10	0.7	18	1.5	21	1.4	14	1.0
Information Technology	19	1.3	12	1.0	18	1.2	13	0.9
Agriculture, Environmental and Related Studies	5	0.4	8	0.7	10	0.7	6	0.4
Food, Hospitality and Personal Services	3	0.2	4	0.3	5	0.3	6	0.4
Architecture and Building	7	0.5	3	0.3	2	0.1	2	0.1

Note: This level of detail was only asked from the 2014 survey onwards.

Note: Due to the structure of the question Health total includes those who ticked a row titled 'Health, please specify' and did not specify an area as well as those who specified at least one health area.

SECTION 3: MEDICAL SCHOOL EXPERIENCE

Satisfaction and preparation for internship

Students were asked about their level of satisfaction with the medical program at their university (Table 12) on a Likert scale of 1 to 5. The average level of satisfaction for the 2017 graduating cohort was 3.8 and the median level of satisfaction was 4 (satisfied). More than three-quarters (76%) of respondents indicated they were "satisfied" or "very satisfied" with their medical program in 2017, which is the second most satisfied graduating cohort across the five year period. However the proportion of graduates "dissatisfied" or "highly dissatisfied" has also risen slightly.

Table 12. Overall level of satisfaction with medical program at the university

Level of satisfaction	2013	2014	2015	2016	2017
Average satisfaction	3.8	3.9	3.8	3.8	3.8
Median satisfaction	4	4	4	4	4
Per cent satisfied or very satisfied	74.9	81.0	74.2	74.9	76.4
Per cent dissatisfied or very dissatisfied	9.5	6.5	9.4	9.5	10.0

Scale: 1 = Very Dissatisfied, 2 = Dissatisfied, 3 = Neither Satisfied nor Dissatisfied, 4 = Satisfied, 5 = Very Satisfied

Note: Since previous reports the order of the Likert scale has been reversed

Nearly three-quarters of graduating students in 2017 "Agreed" or "Strongly Agreed" that their basic medical degree was preparing them well to work as an intern, whilst 7.1% of the cohort "Disagreed" or "Strongly Disagreed" with this statement (Table 13), up slightly from previous years. The average and median level of agreement has remained consistent since 2014.

Table 13. Overall level of agreement with the statement 'My BASIC MEDICAL DEGREE is preparing me well to work as an intern.'

Level of agreement	2014	2015	2016	2017
Average agreement	3.9	3.9	3.9	3.8
Median agreement	4	4	4	4
Per cent agreeing or strongly agreeing	78.6	74.2	74.8	74.4
Per cent disagreeing or strongly disagreeing	4.3	6.2	6.5	7.1

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Note: Since previous reports the order of the Likert scale has been reversed

Rural club membership

As part of their medical school experience, students have the opportunity to join rural clubs, which are student-led groups and networks that support and promote initiatives surrounding rural and remote health practice. 38% of respondents to the 2017 MSOD survey indicated they were a member of a rural club, which is a significant increase from the 32% who were members in 2014 (Table 14). It is worth noting that the proportion of rural club members is higher than the 24% of graduates who consider themselves to come from a rural background (Table 8), which highlights that rural club members are not all from rural backgrounds. In fact, 60% of rural club members were respondents who did not consider themselves to come from rural backgrounds, and 35% of students who considered themselves to come from rural backgrounds were not involved with rural clubs. The data shows that graduating students who were part of rural clubs were 3.6 times more likely to prefer to practice outside of capital cities than those not part of rural clubs (OR 3.6 95%CI 3.0-4.3 p<0.001).

Table 14. Respondent is a member of a rural club

Rural club membership	2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	784	31.6	814	40.8	884	39.3	825	38.4
No	1,699	68.4	1,183	59.2	1,367	60.7	1,322	61.6
Total	2,483	100.0	1,997	100.0	2,251	100.0	2,147	100.0

SECTION 4: CAREER INTENTION

Preferred country of future practice

Almost 94% of 2017 final year students indicated Australia as their preferred country of future practice (Table 15). This has remained fairly stable with 2016 being the lowest percentage in this reporting period. The numbers indicating the preference to work in New Zealand have remained below 1%. The marked increase in 2016 of students indicating their preference to practice in countries other than Australia or New Zealand is likely to have been impacted by that year being the first year that substantial numbers had graduated from the US-based Oschner campus of the University of Queensland.

Table 15. Preferred country of future practice

Preferred country of future practice	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Australia	2,734	96.1	2,326	95.3	1,910	95.2	2,073	91.6	2,016	93.9
New Zealand	4	0.1	17	0.7	7	0.3	13	0.6	15	0.7
Other	108	3.8	97	4.0	90	4.5	177	7.8	116	5.4
Total	2,846	100.0	2,440	100.0	2,007	100.0	2,263	100.0	2,147	100.0

Preferred region of future practice

The percentage of graduating students preferring to practice medicine outside of capital cities had an overall increase since 2013 (Table 16) with 36% of respondents in 2017 indicating their preference to practice outside of capital cities. It is worth noting this percentage is greater than the nearly 33% of Australians living outside of capital cities[3]. In addition to this, the MSOD data reveals that graduating students who were part of rural clubs were 3.6 times more likely to intend to practice outside of capital cities than those who were not part of rural clubs. This finding indicates that whilst evidence supports the focus on recruiting and graduating rural students, policies should not overlook students from non-rural backgrounds and their potential to pursue a rural career.

3 Australian Bureau of Statistics 2016, 'National', viewed 23 July 2018, http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Snapshot%20of%20Australia,%202016~2

Table 16. Career intention: first preference of region of future practice for students preferring to practice in Australia

First preference region of future practice	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Capital city	1,819	66.2	1,693	69.9	1,240	63.3	1,408	65.1	1,342	64.2
Major urban centre	427	15.5	352	14.5	367	18.7	361	16.7	365	17.5
Regional city or large town	335	12.2	266	11.0	231	11.8	266	12.3	262	12.5
Smaller town	111	4.0	78	3.2	84	4.3	97	4.5	87	4.2
Small community	54	2.0	33	1.4	36	1.8	32	1.5	35	1.7
Total	2,746	100.0	2,422	100.0	1,958	100.0	2,164	100.0	2,091	100.0

Preferred state of future practice

Victoria (28%), New South Wales (28%) and Queensland (21%) were the most preferred states for their future practice for final year students in 2017 (Table 17). From the previous year, there was a drop in the proportion of graduating students indicating they would prefer to practice in countries outside of Australia and New Zealand, from 8.4% in 2016 to 6.1% in 2017.

Table 17. Career intention: first preference of state of future practice

First preference state of future practice	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
NSW	827	29.0	826	33.9	546	27.2	621	27.4	591	27.5
VIC	771	27.0	537	22.0	549	27.4	589	26.0	607	28.3
QLD	560	19.6	481	19.7	505	25.2	481	21.3	460	21.4
SA	192	6.7	162	6.6	79	3.9	112	4.9	101	4.7
WA	262	9.2	187	7.7	137	6.8	136	6.0	127	5.9
TAS	44	1.5	53	2.2	40	2.0	57	2.5	68	3.2
NT	34	1.2	29	1.2	24	1.2	22	1.0	29	1.4
ACT	44	1.5	51	2.1	30	1.5	55	2.4	33	1.5
Country other than Australia	117	4.1	114	4.7	97	4.8	190	8.4	131	6.1
Total	2,851	100.0	2,440	100.0	2,007	100.0	2,263	100.0	2,147	100.0

Interests for future practice – teaching

A substantial majority of graduating medical students were interested in teaching as part of their future medical career (Table 18). A consistent percentage of approximately 85% of respondents to the MSOD survey from 2013 to 2017 were interested in teaching, with 2017 having the highest percentage at 86%. Only 3.2% of graduating students were not interested in teaching, whilst 11% were undecided.

Table 18. Interest in teaching as part of medical career

Interest in teaching	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	2,400	84.3	2,112	85.1	1,672	83.6	1,917	85.1	1,838	85.6
No	84	3.0	67	2.7	72	3.6	69	3.1	68	3.2
Undecided	363	12.8	304	12.2	256	12.8	266	11.8	241	11.2
Total	2,847	100.0	2,483	100.0	2,000	100.0	2,252	100.0	2,147	100.0

Interests for future practice – research

63% of respondents in 2017 were interested in research as part of their future medical career (Table 19). Almost a quarter of respondents were undecided, whilst a further 14% were not interested.

Table 19. Interest in research as part of medical career

Interest in research	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	1,702	60.0	1,585	64.0	1,229	61.5	1,401	62.2	1,343	62.6
No	402	14.2	320	12.9	305	15.3	340	15.1	295	13.7
Undecided	734	25.9	571	23.1	466	23.3	511	22.7	509	23.7
Total	2,838	100.0	2,476	100.0	2,000	100.0	2,252	100.0	2,147	100.0

Interests for future practice – Indigenous health

More than 43% of graduating students in 2017 were interested in Indigenous health as part of their career (Table 20). This has been the highest percentage of the last three cohorts, with an increase of almost six percentage points since 2014. The percentage of respondents not interested in (22%) or undecided about (35%) Indigenous health was also at its lowest in 2017. This shows a trend toward Australian medical graduates becoming more decisive and interested in Indigenous health as part of their future career.

Table 20. Interest in Indigenous health as part of medical career

Interest in Indigenous health	2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	936	37.9	741	37.1	875	38.9	931	43.4
No	574	23.3	472	23.6	584	25.9	473	22.0
Undecided	957	38.8	787	39.4	793	35.2	743	34.6
Total	2,467	100.0	2,000	100.0	2,252	100.0	2,147	100.0

Preferred specialty of future practice

Adult Medicine has been the most preferred specialty of future practice for graduating students since 2014, with 19% of respondents in 2017 also preferring this (Table 21). General Practice (17%) and Surgery (15%) were respectively the second and third ranked preferred specialty. These three specialties have remained as the most commonly preferred speciality of future practice since 2013; with the top 13 ranked specialties remaining unchanged in 2016 and 2017. The percentage of those preferring to practice in Anaesthesia has had the largest increase over the previous five years, from 7.4% in 2013 to 11% in 2017. Of all the specialties, Occupational and Environmental Medicine has had the lowest numbers of respondents selecting this as a preferred area of future practice across the previous five years.

Table 21. First preference of specialty for future practice

First preference specialty of future practice	2013			2014			2015		
	Number	Per cent	Rank (in year)	Number	Per cent	Rank (in year)	Number	Per cent	Rank (in year)
Adult Medicine/ Internal Medicine/ Physician	456	16.6	2	474	19.5	1	391	19.8	1
General Practice	469	17.0	1	392	16.1	3	351	17.8	2
Surgery	440	16.0	3	393	16.2	2	303	15.3	3
Anaesthesia	193	7.0	6	183	7.5	6	160	8.1	6
Paediatrics and Child Health	264	9.6	4	249	10.2	4	189	9.6	4
Emergency Medicine	229	8.3	5	185	7.6	5	168	8.5	5
Obstetrics and Gynaecology	167	6.1	7	181	7.4	7	122	6.2	7
Psychiatry	82	3.0	9	74	3.0	8	74	3.7	8
Intensive Care Medicine	59	2.1	10	64	2.6	10	39	2.0	10
Ophthalmology	55	2.0	12	69	2.8	9	29	1.5	11
Radiology	51	1.9	13	54	2.2	11	53	2.7	9
Dermatology	44	1.6	14	42	1.7	12	22	1.1	12
Palliative Medicine	13	0.5	17	6	0.2	16	11	0.6	15
Sport and Exercise Medicine	13	0.5	18	9	0.4	15	11	0.6	16
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	5	0.2	21	4	0.2	18	6	0.3	18
Pathology	15	0.5	15	18	0.7	13	17	0.9	13
Public Health Medicine	11	0.4	19	6	0.2	17	12	0.6	14
Radiation Oncology	14	0.5	16	12	0.5	14	5	0.3	19
Addiction Medicine	3	0.1	25	3	0.1	21	1	0.1	22
Medical Administration (e.g. managing a hospital)	1	0.0	27	2	0.1	22	2	0.1	20
Rehabilitation Medicine	5	0.2	22	4	0.2	19	2	0.1	21
Sexual Health Medicine	4	0.1	24	4	0.2	20	8	0.4	17
Pain Medicine	2	0.1	26	2	0.1	23	0	0.0	24
Occupational and Environmental Medicine	1	0.0	28	1	0.0	24	0	0.0	23
Rural and Remote Medicine	57	2.1	11	. .	. .	. .	. .	. .	. .
Oral and Maxillofacial Surgery	8	0.3	20	. .	. .	. .	. .	. .	. .
Indigenous Health	4	0.1	23	. .	. .	. .	. .	. .	. .
Other	90	3.3	8	. .	. .	. .	. .	. .	. .
Total	2,755	100.0	. .	2,431	100.0	. .	1,976	100.0	. .

Note: Survey options for Indigenous Health, Oral and Maxillofacial Surgery, Rural and Remote Medicine, and Other were removed from the 2014 survey onwards.

First preference specialty of future practice	2016			2017		
	Number	Per cent	Rank (in year)	Number	Per cent	Rank (in year)
Adult Medicine/ Internal Medicine/ Physician	428	19.3	1	390	18.5	1
General Practice	356	16.0	2	349	16.5	2
Surgery	342	15.4	3	317	15.0	3
Anaesthesia	221	10.0	4	226	10.7	4
Paediatrics and Child Health	219	9.9	5	189	9.0	5
Emergency Medicine	206	9.3	6	181	8.6	6
Obstetrics and Gynaecology	148	6.7	7	138	6.5	7
Psychiatry	74	3.3	8	84	4.0	8
Intensive Care Medicine	53	2.4	9	54	2.6	9
Ophthalmology	41	1.8	10	45	2.1	10
Radiology	39	1.8	11	43	2.0	11
Dermatology	24	1.1	12	25	1.2	12
Palliative Medicine	13	0.6	13	11	0.5	13
Sport and Exercise Medicine	10	0.5	16	11	0.5	14
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	11	0.5	14	9	0.4	15
Pathology	11	0.5	15	9	0.4	16
Public Health Medicine	7	0.3	17	9	0.4	17
Radiation Oncology	2	0.1	21	6	0.3	18
Addiction Medicine	2	0.1	19	4	0.2	19
Medical Administration (e.g. managing a hospital)	2	0.1	20	3	0.1	20
Rehabilitation Medicine	6	0.3	18	3	0.1	21
Sexual Health Medicine	2	0.1	22	3	0.1	22
Pain Medicine	1	0.0	24	2	0.1	23
Occupational and Environmental Medicine	1	0.0	23	0	0.0	24
Rural and Remote Medicine	. .	. .	. .	. .	. .	. .
Oral and Maxillofacial Surgery	. .	. .	. .	. .	. .	. .
Indigenous Health	. .	. .	. .	. .	. .	. .
Other	. .	. .	. .	. .	. .	. .
Total	2,219	100.0	. .	2,111	100.0	. .

Factors influencing specialty choice for future practice

Table 22 shows the score and rank of various factors influencing the respondents' choice of their most preferred specialty of medicine. Graduating medical students were asked to rank every factor from a scale of 1 ("Not at all" influential) to 5 ("A great deal" of influence). The consistently highest ranked influencing factor across the previous five years was that of "Atmosphere/ work culture" typical of the specialty, which had its highest score in 2017 (4.14). The factor "Alignment with personal values" has become more influential since 2014, where it ranked fourth, to ranking second in 2017. The least influential factors were "Influence of partners' occupation" (1.81), "financial costs of vocational training" (1.81) and "financial costs of medical school education and/or debt" (1.82). These factors have also been the consistently lowest ranked factors across the previous five years.

Table 22. Factors influencing choice of most preferred area of medicine

Mean of factors influencing choice of most preferred area of medicine	2013		2014		2015		2016		2017	
	Influence	Rank (in year)	Influence	Rank (in year)	Influence	Rank (in year)	Influence	Rank (in year)	Influence	Rank (in year)
Atmosphere/work culture typical of the discipline	4.04	1	4.05	1	4.12	1	4.09	1	4.14	1
Alignment with personal values	. .	. .	3.93	4	4.01	3	4.04	3	4.09	2
Experience of specialty as a medical student	3.97	2	4.01	2	4.04	2	4.05	2	4.07	3
Intellectual content of the specialty	3.87	4	3.96	3	3.99	4	3.98	4	4.00	4
General medical school experiences (e.g. mentors, discipline placements)	3.88	3	3.88	6	3.95	5	3.96	5	3.95	5
Influence of consultants/mentors	3.85	5	3.88	5	3.91	6	3.93	6	3.90	6
Self-appraisal of own skills/aptitudes	3.65	7	3.69	8	3.78	7	3.80	7	3.76	7
Opportunity for procedural work	3.70	6	3.70	7	3.69	8	3.69	8	3.71	8
Type of patients typical of the discipline	3.40	9	3.43	10	3.45	10	3.49	9	3.48	9
Perceived opportunity to work flexible hours	3.44	8	3.47	9	3.46	9	3.43	10	3.46	10
Perceived amount of working hours	3.32	11	3.34	11	3.29	14	3.27	13	3.34	11
Perceived job security	3.32	10	3.34	12	3.39	11	3.32	11	3.30	12
Perceived career advancement prospects	3.30	12	3.34	13	3.34	12	3.28	12	3.29	13
Availability of a vocational training placement	3.28	13	3.28	14	3.33	13	3.19	14	3.20	14
Self-appraisal of own domestic circumstances	3.17	14	3.20	15	3.25	15	3.18	15	3.19	15
Opportunity for research and /or teaching	3.08	15	3.16	16	3.04	16	3.02	16	3.00	16
Geographical location of most preferred specialty	2.93	16	3.04	17	3.02	17	2.96	17	2.99	17
Number of years required to complete training	2.93	17	2.96	18	2.93	18	2.87	18	2.87	18
Perceived financial prospects	2.62	18	2.64	19	2.60	19	2.49	19	2.52	19
Perceived prestige of the discipline	2.36	19	2.36	20	2.30	20	2.25	20	2.20	20
Risk of litigation and associated insurance costs	2.24	20	2.23	21	2.10	21	2.06	21	2.02	21
Influence of parents/relatives	2.01	21	2.00	22	1.95	22	1.91	22	1.85	22
Financial costs of medical school education and/or debt	1.84	23	1.90	25	1.85	24	1.85	23	1.82	23
Financial costs of vocational training	1.87	22	1.92	24	1.85	25	1.82	25	1.81	24
Influence of partner's occupation	. .	. .	1.93	23	1.88	23	1.85	24	1.81	25

Note: Influence of partner's occupation and Alignment with personal values were not survey questions in 2013.

SECTION 5: INTERNSHIP

Accepted internships by state

The MSOD survey asks participants about their future internship. It should be noted that the time of year in which schools distributed the survey would have a bearing on whether students had been offered an internship, thus it should be noted that the responses presented in the table below do not reflect the final number of internship positions accepted for the 2017 cohort nor are they a representative sample.

Graduating students were asked to indicate in which state or territory they had accepted an internship position (Table 23). Similarly to the preferred state of practice in Table 16, Victoria was the most common state where internship had been accepted (28%), followed by NSW (27%) and Queensland (24%). Western Australia (6.6%) and South Australia (5.4%) had dropped by approximately four percentage points each since 2013, however it should be reiterated that variations in medical school response rates may have caused such fluctuations.

Table 23. Internship acceptance state

Internship acceptance state	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
NSW	741	27.9	749	32.1	498	26.5	569	27.5	521	26.7
VIC	686	25.8	461	19.8	481	25.6	519	25.0	552	28.3
QLD	537	20.2	502	21.5	510	27.2	506	24.4	463	23.7
SA	238	9.0	199	8.5	94	5.0	101	4.9	105	5.4
WA	268	10.1	191	8.2	139	7.4	128	6.2	128	6.6
TAS	54	2.0	66	2.8	52	2.8	65	3.1	71	3.6
NT	46	1.7	28	1.2	25	1.3	22	1.1	26	1.3
ACT	64	2.4	85	3.6	41	2.2	79	3.8	30	1.5
Country other than Australia	24	0.9	50	2.1	38	2.0	83	4.0	55	2.8
Total	2,658	100.0	2,331	100.0	1,878	100.0	2,072	100.0	1,951	100.0

Note: The increase in numbers of people accepting internships to practice in countries other than Australia in 2016 is contributed to by 2016 being the first year substantial numbers have graduated from the Oschner campus of the University of Queensland.

APPENDIX: 2017 MSOD SURVEY RESPONSE RATES

In 2017, there were 3,697 graduating student across all Australian medical schools (Table 24). Of the graduating students from Australian medical schools in 2017, 58% (or 2,147) responded to the MSOD survey.

Table 24. Number of graduating students across all Australian medical schools by course length

Length of course	2017	
	Number	Per cent
4-year course	2,272	61.5
5-year course	777	21.0
6-year course	648	17.5
Total	3,697	100.0

A comparison of survey responses by medical school state and/or territory from the previous five years is presented in Table 25. More than 80% of respondents in 2017 were graduating from medical schools based in New South Wales (29%), Victoria (27%) and Queensland (26%). It should be reinforced that this table shows the states or territories where students were studying medicine, which may be different to where they identify as their primary residence.

Table 25. Respondents by state

State of completion	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
NSW	847	29.5	857	34.4	546	27.2	646	28.5	611	28.5
VIC	740	25.8	461	18.5	509	25.4	544	24.0	567	26.4
QLD	605	21.1	547	21.9	571	28.5	621	27.4	552	25.7
SA	239	8.3	234	9.4	136	6.8	148	6.5	148	6.9
WA	289	10.1	186	7.5	135	6.7	141	6.2	134	6.2
TAS	99	3.4	108	4.3	74	3.7	81	3.6	86	4.0
ACT	53	1.8	100	4.0	36	1.8	82	3.6	49	2.3
Total	2,872	100.0	2,493	100.0	2,007	100.0	2,263	100.0	2,147	100.0

Note: Data for Flinders Medical School (Darwin) is not separately identified from the Adelaide Campus and responses are therefore included in South Australia.

The breakdown of respondents by medical school is presented in Table 26.

Table 26. Respondents by medical school

School of completion	2013		2014		2015		2016		2017	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Australian National University	53	1.8	100	4.0	36	1.8	82	3.6	49	2.3
Bond University	67	2.3	61	2.4	53	2.6	46	2.0	27	1.3
Deakin University	126	4.4	10	0.4	112	5.6	105	4.6	100	4.7
Flinders University	102	3.6	94	3.8	84	4.2	97	4.3	93	4.3
Griffith University	90	3.1	112	4.5	100	5.0	29	1.3	83	3.9
James Cook University	84	2.9	48	1.9	22	1.1	56	2.5	100	4.7
Monash University	321	11.2	230	9.2	238	11.9	242	10.7	303	14.1
The University of Adelaide	137	4.8	140	5.6	52	2.6	51	2.3	55	2.6
The University of Melbourne	293	10.2	221	8.9	159	7.9	197	8.7	164	7.6
The University of Newcastle / University of New England	160	5.6	117	4.7	103	5.1	54	2.4	79	3.7
The University of New South Wales	204	7.1	193	7.7	88	4.4	126	5.6	127	5.9
The University of Notre Dame (Fremantle)	90	3.1	93	3.7	39	1.9	60	2.7	40	1.9
The University of Notre Dame (Sydney)	76	2.6	80	3.2	8	0.4	81	3.6	51	2.4
The University of Queensland	364	12.7	326	13.1	396	19.7	490	21.7	342	15.9
The University of Sydney	252	8.8	284	11.4	190	9.5	269	11.9	276	12.9
University of Tasmania	99	3.4	108	4.3	74	3.7	81	3.6	86	4.0
The University of Western Australia	199	6.9	93	3.7	96	4.8	81	3.6	94	4.4
University of Western Sydney	84	2.9	110	4.4	97	4.8	43	1.9	25	1.2
University of Wollongong	71	2.5	73	2.9	60	3.0	73	3.2	53	2.5
Total	2,872	100.0	2,493	100.0	2,007	100.0	2,263	100.0	2,147	100.0