



NATIONAL DATA REPORT 2020

2015 - 2019 DATA FROM
FINAL YEAR STUDENTS AT
AUSTRALIAN MEDICAL SCHOOLS

MEDICAL SCHOOLS OUTCOMES DATABASE

National Data Report 2020

BACKGROUND

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

The MSOD project commenced in 2005 and has been run each year, providing a valuable, unique, national resource of comprehensive data and insights on Australian medical final year students. The MSOD currently contains over 36,000 participants and is stored and managed by the Australian Institute of Health and Welfare (AIHW) on behalf of Medical Deans.

A similar project is conducted in New Zealand by the Universities of Auckland and Otago, with similar questions and with the support of the New Zealand Ministry of Health. The New Zealand MSOD reports can be found [here](#). This report does not incorporate the New Zealand data.

Medical Deans would like to express our thanks to all the final year medical students over the years who have taken time to provide this data and contributed to the development of this resource; to inform and shape the development of informed, evidence-based, and effective medical education and health workforce policy. We also gratefully acknowledge the support of the Australian government for its funding support of the MSOD.

Please note, this survey is intended to capture feedback from students exiting medical school. Therefore, for any respondents who repeated their final year, only their latest response is reported.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	4
SECTION 1: DEMOGRAPHICS.....	6
Student age	6
Relationship and dependants.....	7
Country of birth.....	8
Sources of income	9
Rural background	10
SECTION 2: PREVIOUS EDUCATION	12
Level of previous degree	12
Discipline of previous degree	13
SECTION 3: MEDICAL SCHOOL EXPERIENCE	14
Satisfaction and preparation for internship	14
Rural club membership	15
SECTION 4: CAREER INTENTION	16
Preferred country for future practice.....	16
Preferred state for future practice	16
Preferred location for future practice	17
Preferred location for future practice – by rural background	18
Interests for future practice – teaching.....	19
Interests for future practice – research.....	19
Interests for future practice – Indigenous health.....	20
Preferred specialty of future practice	21
Factors influencing specialty choice for future practice	24
SECTION 5: INTERNSHIP.....	26
Accepted internships by state	26
APPENDIX: 2019 MSOD SURVEY RESPONSE RATES	27
Medical school response	28

EXECUTIVE SUMMARY

This report provides the findings that were captured by the 2019 Medical Schools Outcomes Database (MSOD) survey, with data presented that from the 5 years 2015 to 2019.

This survey was administered to final year students in medical schools across Australia towards the end of 2019, with a 53 per cent response rate (2,047 respondents). Demographic characteristics of the respondents remained broadly similar across the years 2015 to 2019. Around 54 per cent of respondents were female; from a cohort where 52 percent were female¹. Compared with 2018, the 2019 final year respondents had a younger minimum and maximum age, with only 13 per cent over 30 years old. Around 5 per cent had 1 or more children and 2.8 per cent had other dependents; with these figures remaining very consistent since this data started being collected in 2013.

Selecting students from, and training in and for rural practice is a key priority for medical schools to improve equity of access to medical education and support the improved geographic distribution of the future medical workforce. 23 per cent of respondents considered themselves as coming from a rural background, and a similar number indicated their final year of schooling was outside a capital city.

At the time of graduation, just under 35 per cent of respondents indicated a preference to practice outside a capital city in their future career; slightly less than last year but similar to the proportion of the general population living outside capital cities in Australia². The MSOD data since 2014 confirms other findings that students from a rural background express higher levels of desire to practice in rural or regional locations. The MSOD also shows that rural-background students indicate a higher interest in Indigenous health being a part of their future medical career. This year's data again confirmed the strong association between rural club membership and a stated preference at the time of graduation for future rural practice, with members of rural clubs 3.1 times more likely to express this preference.

Preferences for future practice across the disciplines have remained consistent over the years of the survey. The category of "Adult medicine/internal medicine/physician" has retained the highest preference since 2014. General practice and surgery have consistently been either the 2nd or 3rd preferred choice, with paediatrics and child health, anaesthesia, and emergency medicine remaining the subsequent 3 choices comprising the top 6.

1 Medical Deans' Student Statistics Snapshot Report 2018-2019 <https://medicaldeans.org.au/md/2020/01/2019-Student-Statistics-Report.pdf>

2 Australian Bureau of Statistics 2016, 'National census', viewed 17/08/2020 <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2071.02016?OpenDocument>

“Atmosphere/work culture typical of the discipline” remained the most highly ranked factor in influencing the preferred choice of discipline. Alignment with personal values and the experience of the specialty as a student have also been consistently highly rated as factors. Along with the “intellectual content of the discipline”, these four factors have been the highest rated in each survey since 2014. Interest in teaching as part of their future continues to grow, as does interest in Indigenous health.

Levels of satisfaction with the medical program at universities dropped slightly, with 71 percent indicating they agreed or strongly agreed that they were satisfied with their courses. The percentage dissatisfied or very dissatisfied increased to 13 per cent. Similarly, the proportion of students in overall agreement that their basic medical degree was preparing them well for work as an intern dropped to just over 70 per cent, with a small increase in the proportion not agreeing.

SECTION 1: DEMOGRAPHICS

Student age

In 2019, final year students who responded to the survey were most commonly aged between 25 and 29, with nearly 47 per cent within this category – slightly lower than last year. Just under 87 per cent were aged under 30 years old, with only 2.1 per cent over 40 years old. These figures vary little from earlier years, although the already low numbers of students aged 45 and over and aged 35-39 have been gradually decreasing.

Table 1. Respondents by age group

Age	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
<25	807	40.4	793	35.1	790	37.4	825	37.4	823	40.2
25-29	905	45.3	1,083	48.0	1,003	47.4	1,070	48.5	955	46.7
30-34	194	9.7	278	12.3	218	10.3	217	9.8	182	8.9
35-39	60	3.0	60	2.7	77	3.6	57	2.6	45	2.2
40-44	17	0.9	28	1.2	16	0.8	22	1.0	30	1.5
45+	17	0.9	15	0.7	10	0.5	13	0.6	12	0.6
Total	2,000	100.0	2,257	100.0	2,114	100.0	2,204	100.0	2,047	100.0

The median age of respondents remained consistent at 25 years old. The 2019 cohort had a minimum age two years lower, and a maximum age four years lower than the previous year.

Table 2. Median age of respondents

Age	2015	2016	2017	2018	2019
Median	25	25	25	25	25
Minimum	20	20	19	21	19
Maximum	60	55	54	62	58

Relationship and dependants

The proportion of respondents identifying as having a partner (i.e. in a relationship or married) is very consistent with the previous year and, in general, with the data across the previous 5 years. The data shows the figure varies by between 1 and 3 per cent across this timeframe, with slightly fewer than half identifying as 'partnered'.

Table 3. Partner status

Partner status	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Not partnered	1,025	51.1	1,184	52.4	1,094	51.7	1,172	53.1	1,101	53.8
Partnered	982	48.9	1,077	47.6	1,023	48.3	1,034	46.9	946	46.2
Total	2,007	100.0	2,261	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Just under 5 per cent of respondents have dependent children (Table 4), with the numbers varying very little from previous years' data. Similarly, the vast majority have no 'other dependants', with little change over the years.

Table 4. Number of dependent children and other dependants

Dependent children & other dependants	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Children										
0	1,874	95.6	2,107	95.2	1,992	95.6	2,092	94.8	1,947	95.1
1	39	2.0	52	2.3	42	2.0	55	2.5	51	2.5
2	32	1.6	30	1.4	36	1.7	44	2.0	33	1.6
3 or more	16	0.8	25	1.1	13	0.6	15	0.7	16	0.8
Total	1,961	100.0	2,214	100.0	2,083	100.0	2,206	100.0	2,047	100.0
Other										
0	1,880	95.9	2,159	97.5	2,043	98.1	2,154	97.6	1,990	97.2
1	62	3.2	41	1.9	30	1.4	32	1.5	40	2.0
2	13	0.7	6	0.3	6	0.3	12	0.5	13	0.6
3 or more	6	0.3	8	0.4	4	0.2	8	0.4	4	0.2
Total	1,961	100.0	2,214	100.0	2,083	100.0	2,206	100.0	2,047	100.0

Country of birth

The proportion of respondents born in Australia continues to increase, with the data showing the highest representation over the last decade. The proportion of students born in Singapore remains consistently high, whilst the proportion born in Malaysia dropped a percentage point. Respondents born in China have also decreased. The representation of Hong Kong-born students dropped outside the top-10 whilst South Africa returned to this list after not being in the top-10 in the 2018 results.

Table 5. Country of birth (top 10)

Birth Country	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Australia	1,283	63.9	1,376	60.9	1,367	64.6	1,450	65.7	1,378	67.3
Singapore	80	4.0	111	4.9	92	4.3	104	4.7	93	4.5
Canada	89	4.4	88	3.9	77	3.6	54	2.4	56	2.7
New Zealand	57	2.8	55	2.4	46	2.2	43	1.9	54	2.6
India	37	1.8	59	2.6	50	2.4	51	2.3	51	2.5
Malaysia	69	3.4	62	2.7	56	2.6	72	3.3	50	2.4
England	49	2.4	45	2.0	51	2.4	37	1.7	37	1.8
China (excludes SARs and Taiwan)	52	2.6	41	1.8	51	2.4	58	2.6	35	1.7
South Africa	26	1.3	29	1.3	27	1.3	30	1.4	34	1.7
United States of America	32	1.6	107	4.7	64	3.0	51	2.3	30	1.5
Other	233	11.6	288	12.7	236	11.1	256	11.6	229	11.2
Total	2,007	100	2,261	100	2,117	100	2,206	100	2,047	100

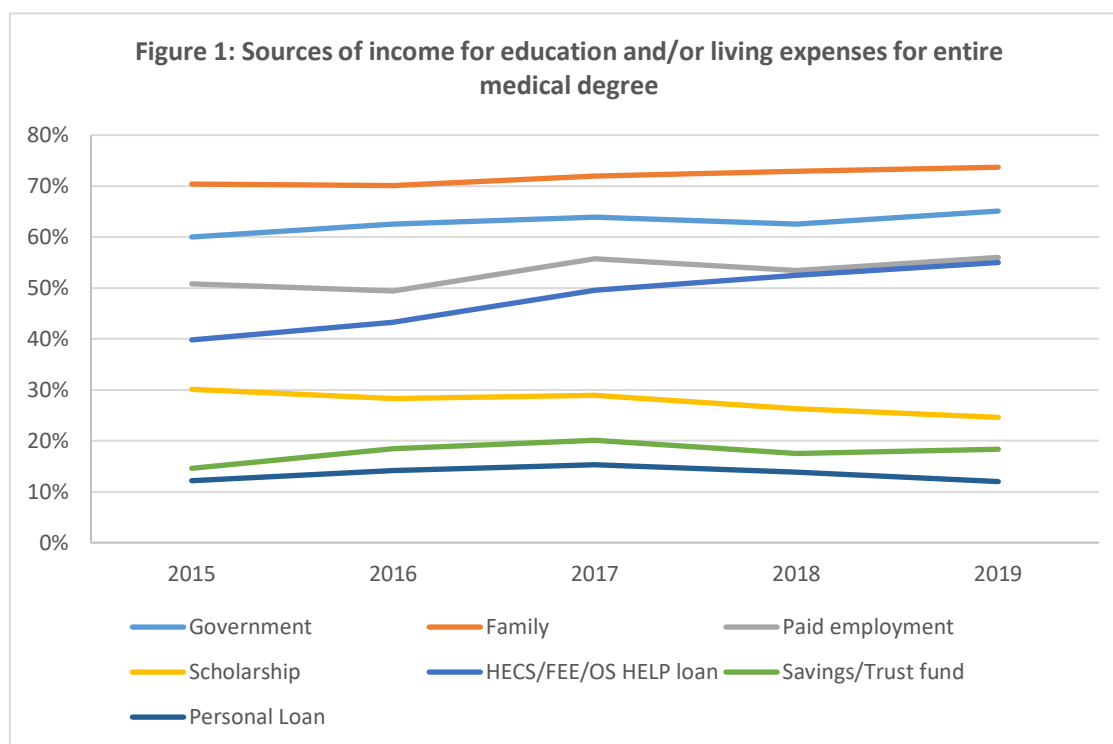
Sources of income

The majority of respondents relied on family (74 per cent). This proportion continues to gradually increase, as does that indicating Government support (65 per cent), paid employment (56 per cent), and HECS / FEE / OS HELP student loans (55 per cent). This student loan figure is the highest seen since this data was first collected in 2013. The figure for scholarships continued its steady fall, while the use of savings and trust funds remained relatively steady. The number with a personal loan dropped back to 2015 levels.

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

Income sources	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Family	1412	70.4%	1586	70.1%	1524	72.0%	1609	72.9%	1509	73.7%
Government	1205	60.0%	1412	62.5%	1352	63.9%	1378	62.5%	1332	65.1%
Paid employment	1019	50.8%	1117	49.4%	1180	55.7%	1178	53.4%	1146	56.0%
HECS/FEE/OS HELP loan	799	39.8%	978	43.3%	1051	49.6%	1158	52.5%	1126	55.0%
Scholarship	605	30.1%	640	28.3%	612	28.9%	580	26.3%	503	24.6%
Savings/Trust fund	293	14.6%	417	18.4%	426	20.1%	385	17.5%	374	18.3%
Personal Loan	245	12.2%	320	14.2%	324	15.3%	305	13.8%	245	12.0%
Total responded	2,007	100%	2,261	100%	2,117	100%	2,206	100%	2,047	100%

Note: Participants can select more than one option. Hence the total is the count of people who reported at least one income source.



Rural background

23 per cent of the 2019 MSOD respondents considered themselves as coming from a rural background (Table 7), and around the same proportion who finished their final year of secondary schooling in Australia did so in a regional area (Table 8). For both these indicators, the numbers have remained fairly consistent from 2015 onwards.

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

Rural background	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	467	23.3	538	23.8	501	23.7	491	22.3	467	22.8
No	1,538	76.7	1,718	76.2	1,615	76.3	1,715	77.7	1,580	77.2
Total	2,005	100.0	2,256	100.0	2,116	100.0	2,206	100.0	2,047	100.0

Note: Includes all respondents, including international students

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

Final year of school is in regional	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	413	23.4	480	24.4	478	23.0	444	23.6	401	22.7
No	1,355	76.6	1,490	75.6	1,596	77.0	1,437	76.4	1,362	77.3
Total	1,768	100.0	1,970	100.0	2,074	100.0	1,881	100.0	1,763	100.0

Note: Excludes students whose final year of schooling was overseas

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 1 year prior to commencing medical school.

Table 9 shows that 70 per cent of final year students in 2018 lived the longest in a capital city. The data reflects fairly closely that from the Australian Bureau of Statistics' most recent census data (2016) which showed that 66.6 per cent per cent of the population were living in a capital city³.

The proportion of students from smaller towns and communities both dropped.

**Table 9. Location where students have lived the longest
(for domestic students living in Australia for more than 1 year)**

Location of longest residence ⁴	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Capital city	1,372	69.0	1,594	71.4	1,484	70.5	1,551	70.7	1,427	69.8
Major urban centre	231	11.6	203	9.1	223	10.6	222	10.1	241	11.8
Regional city or large town	154	7.7	194	8.7	161	7.7	178	8.1	181	8.9
Smaller town	84	4.2	118	5.3	112	5.3	114	5.2	84	4.1
Small community	148	7.4	122	5.5	124	5.9	129	5.9	112	5.5
Total	1,989	100.0	2,231	100.0	2,104	100.0	2,194	100.0	2,045	100.0

3. Australian Bureau of Statistics 2016, 'National census', viewed 17/08/2020, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2071.02016?OpenDocument>

4. 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

The numbers of final year students who have completed a degree, diploma, or certificate prior to undertaking their medical studies has remained relatively stable over this period.

Table 10. Highest level of previous degree

Previous degree highest degree level	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Postgraduate degree	107	5.3	144	6.4	133	6.3	156	7.1	126	6.2
Graduate diploma or graduate certificate level	38	1.9	56	2.5	52	2.5	56	2.5	43	2.1
Bachelor degree (honours)	275	13.7	321	14.2	295	13.9	317	14.4	314	15.3
Bachelor degree	748	37.3	941	41.6	869	41.0	898	40.7	802	39.2
Diploma	24	1.2	18	0.8	25	1.2	23	1.0	13	0.6
Certificate	21	1.0	31	1.4	43	2.0	29	1.3	28	1.4
N/A - no prior tertiary qualifications	794	39.6	750	33.2	700	33.1	727	33.0	721	35.2
Total	2,007	100.0	2,261	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Discipline of previous degree

Just over half of all respondents who had completed a previous degree had done so in Natural and Physical Sciences, whilst 38 per cent had completed a degree in a health-related discipline. Medical studies (16 per cent), Rehabilitation therapies (4 per cent), and Pharmacy (4 per cent) were the most common health-specific degrees completed.

Table 11. Discipline of highest previous degree

Discipline of highest previous degree	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Natural and Physical Sciences	568	47.7%	688	46.3%	689	49.6%	761	52.3%	696	53.3%
Health Total	485	40.8%	588	39.6%	558	40.2%	573	39.4%	495	37.9%
-- Medical studies	169	14.2%	240	16.2%	241	17.4%	240	16.5%	211	16.2%
-- Complementary therapies	5	0.4%	8	0.5%	6	0.4%	0	0.0%	2	0.2%
-- Dental Studies	13	1.1%	9	0.6%	4	0.3%	13	0.9%	8	0.6%
-- Nursing / Midwifery	31	2.6%	46	3.1%	33	2.4%	38	2.6%	32	2.5%
-- Optical Science	4	0.3%	1	0.1%	9	0.6%	6	0.4%	1	0.1%
-- Pharmacy	68	5.7%	75	5.1%	62	4.5%	65	4.5%	47	3.6%
-- Rehabilitation therapies	63	5.3%	72	4.8%	59	4.2%	57	3.9%	50	3.8%
-- Radiography	20	1.7%	12	0.8%	17	1.2%	20	1.4%	18	1.4%
-- Public Health	31	2.6%	39	2.6%	44	3.2%	37	2.5%	41	3.1%
-- Veterinary Studies	9	0.8%	4	0.3%	7	0.5%	10	0.7%	4	0.3%
-- Other Health	54	4.5%	66	4.4%	61	4.4%	64	4.4%	64	4.9%
Society and Culture	88	7.4%	119	8.0%	112	8.1%	110	7.6%	98	7.5%
Engineering and Related Technologies	46	3.9%	60	4.0%	43	3.1%	35	2.4%	49	3.8%
Management & Commerce	37	3.1%	65	4.4%	69	5.0%	47	3.2%	39	3.0%
Creative Arts	33	2.8%	48	3.2%	39	2.8%	34	2.3%	33	2.5%
Education	10	0.8%	21	1.4%	17	1.2%	17	1.2%	14	1.1%
Mixed Field Programmes	18	1.5%	21	1.4%	14	1.0%	17	1.2%	10	0.8%
Information Technology	12	1.0%	18	1.2%	12	0.9%	9	0.6%	8	0.6%
Food, Hospitality and Personal Services	4	0.3%	5	0.3%	6	0.4%	7	0.5%	7	0.5%
Agriculture, Environmental and Related Studies	8	0.7%	10	0.7%	5	0.4%	8	0.6%	4	0.3%
Architecture and Building	3	0.3%	2	0.1%	2	0.1%	2	0.1%	1	0.1%

Note: Due to the structure of the question, the 'Health Total' figure includes those who selected 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

Final year 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. 71 per cent of respondents indicated they were “satisfied” or “very satisfied” with their medical program in 2018, which is the lowest figure since this question started being asked in 2010. The proportion of respondents “dissatisfied” or “highly dissatisfied” has risen, continuing the increase seen since 2011. The average level of satisfaction for the 2018 cohort dropped slightly to 3.7 while the median level of satisfaction was unchanged at 4 (satisfied).

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

Satisfaction	2015	2016	2017	2018	2019
Average satisfaction	3.8	3.8	3.8	3.8	3.7
Median satisfaction	4	4	4	4	4
Per cent satisfied or very satisfied	74.2	74.9	76.8	75.6	71.2
Per cent dissatisfied or very dissatisfied	9.4	9.5	9.8	10.8	13.2

Notes:

Scale: 5 = Very satisfied, 4 = Satisfied, 3 = Neither satisfied nor dissatisfied, 2 = Dissatisfied, 1 = Very dissatisfied
Scales reversed to aid in interpretation

Just over 70 per cent of respondents in 2019 “Agreed” or “Strongly Agreed” that their basic medical degree was preparing them well to work as an intern, a drop from last year. Ten per cent of the cohort said they “Disagreed” or “Strongly Disagreed” with this statement (Table 13), a figure that has been rising over the reported period. The average and median levels of agreement have remained consistent.

Table 13. Overall level of agreement with the statement 'My Basic Medical Degree is preparing me well to work as an intern'

Agreement with statement	2015	2016	2017	2018	2019
Average agreement	3.9	3.9	3.8	3.8	3.8
Median agreement	4	4	4	4	4
Per cent agreeing or strongly agreeing	74.2	74.7	74.8	73.0	70.5
Per cent disagreeing or strongly disagreeing	6.2	6.5	6.8	8.2	10.1

Notes:

Scale: 5 = Very satisfied, 4 = Satisfied, 3 = Neither satisfied nor dissatisfied, 2 = Dissatisfied, 1 = Very dissatisfied
Scales reversed to aid in interpretation

Rural club membership

As part of the medical school experience, students have the opportunity to join rural clubs; student-led groups and networks that promote and develop initiatives surrounding rural and remote health practice. Membership of a rural club has been shown to be strongly associated with a desire at the time of graduation for future practice in a rural location.

In 2019, 30 per cent of respondents indicated that they were a member of a rural club. This number has shown a slow but steady drop over the last few years after an increase seen in 2015 and is now slightly below the rate reported in 2014 (31.6 per cent). It is worth noting that the majority of rural club members (around 60 per cent) are not from rural backgrounds. Of those students who did consider themselves from a rural background 52 per cent were involved with rural clubs, dropping from 59 per cent the previous year.

Using a binary logistic regression analysis, 2019 data showed that respondents who reported being members of rural clubs were 3.1 times more likely to express a preference to practice outside capital cities than those who were not members (OR 3.1 95%CI 2.6-3.8 p<0.001). This has dropped from 3.9 times more likely the previous year.

Table 14. Respondent is a member of a rural club

Rural club membership	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	814	40.8	884	39.3	814	38.5	717	32.5	615	30.0
No	1,183	59.2	1,365	60.7	1,303	61.5	1,489	67.5	1,432	70.0
Total	1,997	100.0	2,249	100.0	2,117	100.0	2,206	100.0	2,047	100.0

SECTION 4: CAREER INTENTION

Preferred country for future practice

The vast majority (97 per cent) of 2019 final-year students indicated Australia as their preferred country for future practice. This has remained fairly stable, with 2016 having the lowest percentage in this reporting period. The numbers indicate the preference to work in New Zealand has dropped back to 2015 levels.

Table 15. Preferred country for future practice

Preferred country for future practice	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Australia	1,910	95.2	2,071	91.6	1,992	94.1	2,093	94.9	1,975	96.5
New Zealand	7	0.3	13	0.6	13	0.6	14	0.6	5	0.2
Other	90	4.5	177	7.8	112	5.3	99	4.5	67	3.3
Total	2,007	100.0	2,261	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Preferred state for future practice

In 2019, New South Wales, Victoria and Queensland continued to be the 3 most preferred states for final year students when considering the location of their intended future practice. WA continues to see an increase, however the proportion choosing 'other country' has fallen slightly.

Table 16. Career intention: first preference of state for future practice

First preference for future practice	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
NSW	546	27.2	619	27.4	582	27.5	585	26.5	617	30.1
VIC	549	27.4	589	26.1	605	28.6	677	30.7	596	29.1
QLD	505	25.2	481	21.3	451	21.3	437	19.8	366	17.9
WA	137	6.8	136	6.0	125	5.9	170	7.7	204	10.0
SA	79	3.9	112	5.0	101	4.8	92	4.2	76	3.7
Other country	97	4.8	190	8.4	125	5.9	113	5.1	72	3.5
TAS	40	2.0	57	2.5	68	3.2	65	2.9	52	2.5
ACT	30	1.5	55	2.4	31	1.5	44	2.0	42	2.1
NT	24	1.2	22	1.0	29	1.4	23	1.0	22	1.1
Total	2,007	100.0	2,261	100.0	2,117	100.0	2,206	100.0	2,047	100.0

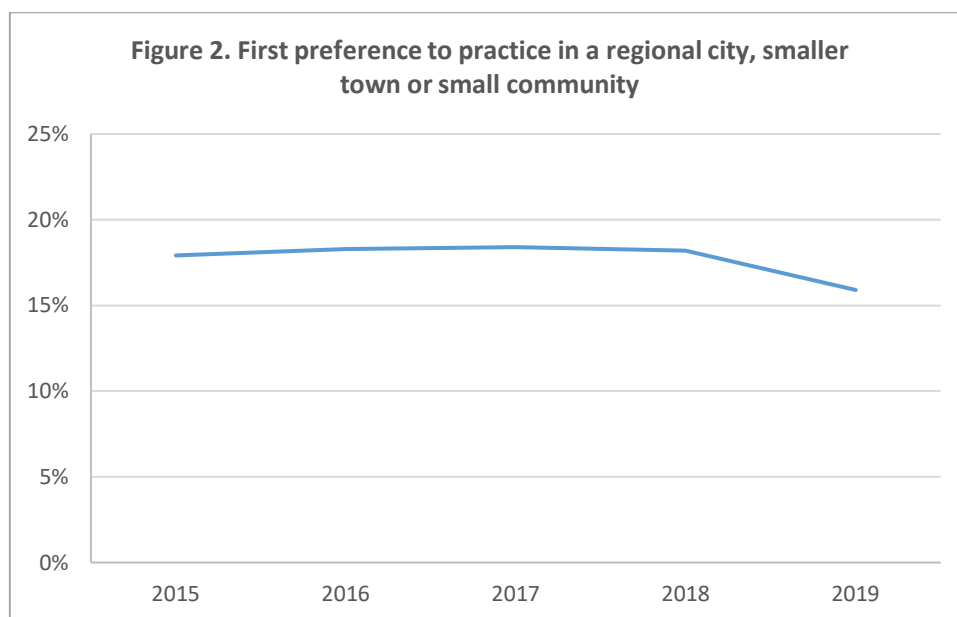
Preferred location for future practice

The percentage of final year students expressing a preference for a future career located outside of capital cities has decreased very slightly this year and is sitting at just under 35 per cent of respondents. This is slightly higher than the proportion of the population reported to be living outside of capital cities⁵, which 33 per cent in the 2016 census. There has been a small increase since last year in the preference to work in capital cities and major urban centres, and a decreased interest for a future practice in regional cities and small towns.

Table 17. Career intention: first preference of location for future practice (for students preferring to practice in Australia)

First preference region for future practice	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Capital city	1,240	63.3	1,406	65.0	1,324	64.2	1,378	64.1	1,325	65.5
Major urban centre	367	18.7	361	16.7	358	17.4	380	17.7	375	18.5
Regional city or large town	231	11.8	266	12.3	260	12.6	276	12.8	229	11.3
Smaller town	84	4.3	97	4.5	86	4.2	88	4.1	68	3.4
Small community	36	1.8	32	1.5	34	1.6	29	1.3	26	1.3
Total	1,958	100.0	2,162	100.0	2,062	100.0	2,151	100.0	2,023	100.0

Note: **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).



5. Australian Bureau of Statistics 2017, <https://www.abs.gov.au/ausstats/abs@.nsf/lookup/Media%20Release10>

Preferred location for future practice – by rural background

The 2019 data shows the preferred location for future practice of students from a non-rural background remained fairly stable, while there was an increase in rural students expressing a preference for future practice in a capital city (to 38 per cent), however this still remains substantially less than the 74% of non-rural students. Just over a quarter of non-rural students state a preference for a future career working outside a capital city. The preference for regional cities or smaller towns declined slightly in both groups.

Table 18. Preferred location for future practice – by rural background (percentage)

Preferred location of future practice (percentage)	2015		2016		2017		2018		2019	
	Non-rural	Rural	Non-rural	Rural	Non-rural	Rural	Non-rural	Rural	Non-rural	Rural
Capital city	72.2	34.3	75.4	32.7	73.5	34.7	73.8	31.5	73.5	38.8
Major urban centre	17.0	24.3	15.4	20.7	16.0	21.8	16.5	21.5	17.3	22.7
Regional city or town	7.0	27.4	6.5	30.4	8.0	27.1	7.2	31.9	6.9	26.0
Smaller town	2.7	9.6	2.0	12.4	1.7	11.9	2.3	10.2	1.9	8.2
Small community	1.1	4.3	0.7	3.8	0.8	4.4	0.3	4.9	0.4	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: **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).

Figure 3: Preferred location for future practice: students from a rural background

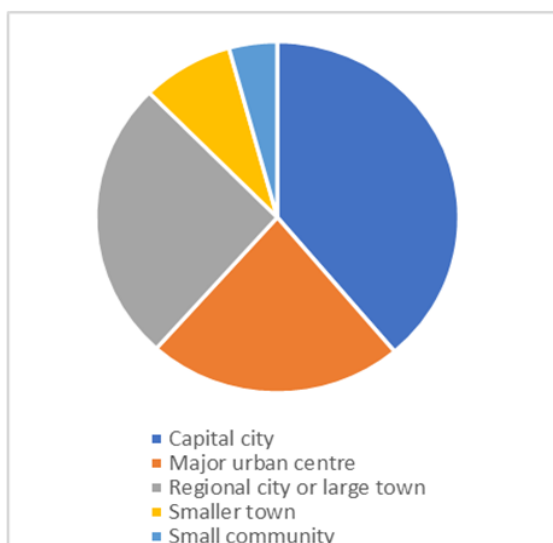
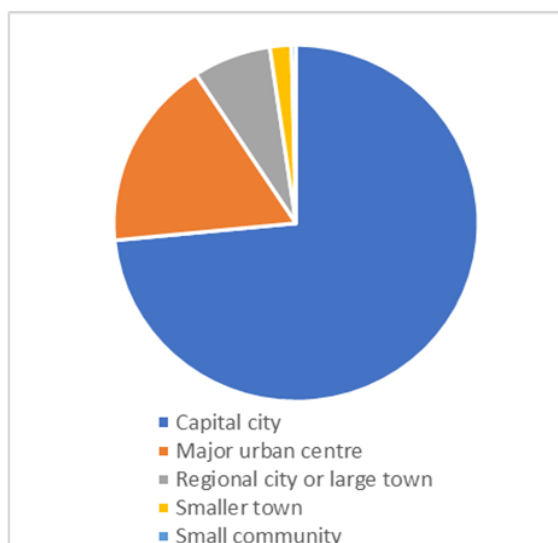


Figure 4: Preferred location for future practice: students from a non-rural background



Interests for future practice – teaching

A substantial majority of final year medical students were interested in teaching as part of their future medical career (Table 19), with this number increasing slightly to 86 per cent. A very low proportion of respondents indicate they are not interested in teaching, whilst consistently 11 to 12 per cent are undecided.

Table 19. Interest in teaching as part of medical career

Interest in teaching	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	1,672	83.6	1,916	85.2	1,813	85.6	1,883	85.4	1,762	86.1
No	72	3.6	69	3.1	66	3.1	79	3.6	59	2.9
Undecided	256	12.8	265	11.8	238	11.2	244	11.1	226	11.0
Total	2,000	100.0	2,250	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Interests for future practice – research

63 per cent of respondents in 2019 were interested in research as part of their future medical career. These numbers have remained very stable over this time period.

Table 20. Interest in research as part of medical career

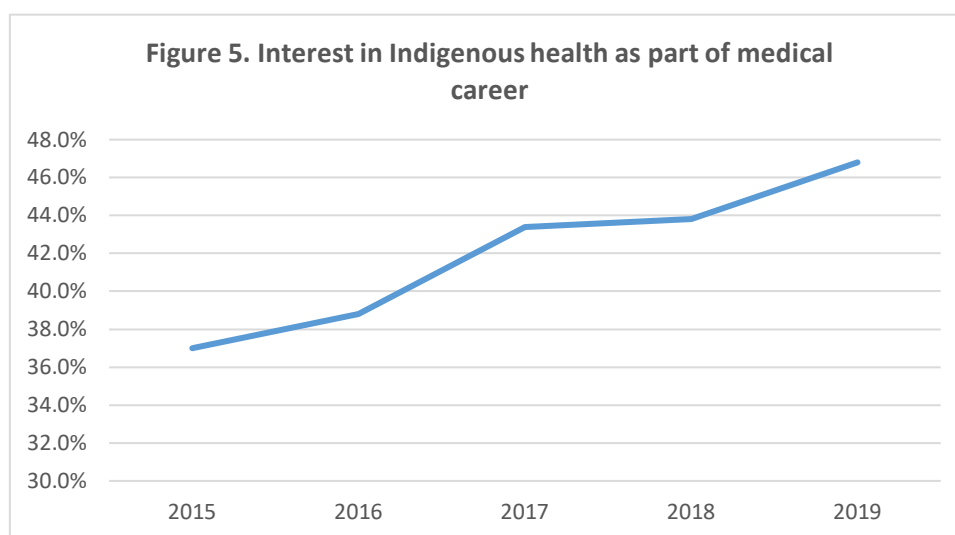
Interest in research	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	1,229	61.5	1,400	62.2	1,325	62.6	1,418	64.3	1,286	62.8
No	305	15.3	339	15.1	290	13.7	342	15.5	332	16.2
Undecided	466	23.3	511	22.7	502	23.7	446	20.2	429	21.0
Total	2,000	100.0	2,250	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Interests for future practice – Indigenous health

Nearly 47 per cent of final year students in 2019 were interested in Indigenous health being a part of their future career. This number continues to gradually grow and is the highest percentage across the reported timeframe, with an increase of almost 10 per cent since 2015.

Table 21. Interest in Indigenous health as part of medical career

Interest in Indigenous health	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Yes	750	37.0	876	38.8	931	43.4	976	43.8	959	46.8
No	481	23.7	585	25.9	473	22.0	508	22.8	416	20.3
Undecided	798	39.3	796	35.3	743	34.6	744	33.4	672	32.8
Total	2,029	100.0	2,257	100.0	2,147	100.0	2,228	100.0	2,047	100.0



Respondents from a rural background were more likely to express interest in Indigenous health than those from a non-rural background. This has been a consistent trend.

Table 22. Interest in Indigenous health by rural background (percentage)

Interest in Indigenous health – by rural background	2015		2016		2017		2018		2019	
	Rural	Non-rural	Rural	Non-rural	Rural	Non-rural	Rural	Non-rural	Rural	Non-rural
Yes	50.5	33.0	51.8	34.7	50.7	41.1	57.3	39.9	56.1	44.1
No	18.9	25.0	21.2	27.4	17.6	23.3	14.8	25.0	16.3	21.5
Undecided	30.5	42.0	27.0	37.9	31.7	35.6	27.9	35.2	27.6	34.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Preferred specialty of future practice

“Adult Medicine/ Internal Medicine/ Physician” has remained the most preferred specialty of future practice for final year students (Table 23), with a slight increase this year to 20 per cent. General Practice moved back up to second most preferred at 15.2 per cent, with Surgery dropping from second to third on 13.8 – a decrease from the previous year percentage. These 3 disciplines have remained the most commonly preferred specialties of future practice since 2014; with Paediatrics and Child Health, Anaesthesia, and Emergency Medicine being consistently the other 3 to comprise the top 6. In the last 4 years, the same 13 specialties have comprised the top 13 preferences.

The interest in Anaesthesia continues to grow, and it is the specialty that has had the largest increase over the previous 5 years, from 8.1 per cent in 2015 to 11 per cent in 2019. Medical Administration has jumped to be ranked 15th in this year’s report, from 21st.

It is worth noting that a small but consistent number of final year students state a preference for a career in Non-Specialist Hospital Practice.

Table 23. First preference of specialty for future practice

First preference specialty of future practice	2015			2016			2017		
	Number	Per cent	Rank	Number	Per cent	Rank	Number	Per cent	Rank
Adult Medicine/ Internal Medicine/ Physician	391	19.8	1	428	19.3	1	385	18.5	1
General Practice	351	17.8	2	356	16.1	2	343	16.5	2
Surgery	303	15.3	3	342	15.4	3	313	15.0	3
Anaesthesia	160	8.1	6	221	10.0	4	226	10.9	4
Paediatrics and Child Health	189	9.6	4	219	9.9	5	187	9.0	5
Emergency Medicine	168	8.5	5	206	9.3	6	179	8.6	6
Obstetrics and Gynaecology	122	6.2	7	148	6.7	7	135	6.5	7
Psychiatry	74	3.7	8	74	3.3	8	83	4.0	8
Intensive Care Medicine	39	2.0	10	53	2.4	9	54	2.6	9
Dermatology	22	1.1	12	24	1.1	12	25	1.2	12
Ophthalmology	29	1.5	11	41	1.8	10	43	2.1	10
Radiology	53	2.7	9	38	1.7	11	42	2.0	11
Palliative Medicine	11	0.6	15	13	0.6	13	11	0.5	13
Sport and Exercise Medicine	11	0.6	16	10	0.5	16	11	0.5	14
Medical Administration (e.g. managing a hospital)	2	0.1	20	2	0.1	20	3	0.1	20
Pathology	17	0.9	13	10	0.5	15	7	0.3	17
Radiation Oncology	5	0.3	19	2	0.1	21	6	0.3	18
Addiction Medicine	1	0.1	22	2	0.1	19	4	0.2	19
Pain Medicine	0	0.0	24	1	0.0	24	2	0.1	22
Public Health Medicine	12	0.6	14	7	0.3	17	9	0.4	16
Sexual Health Medicine	8	0.4	17	2	0.1	22	3	0.1	21
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	6	0.3	18	11	0.5	14	9	0.4	15
Rehabilitation Medicine	2	0.1	21	6	0.3	18	2	0.1	23
Occupational and Environmental Medicine	0	0.0	23	1	0.0	23	0	0.0	24
Total	1,976	100.0	..	2,217	100.0	..	2,082	100.0	..

First preference specialty of future practice	2018			2019		
	Number	Per cent	Rank	Number	Per cent	Rank
Adult Medicine/ Internal Medicine/ Physician	415	19.1	1	387	19.9	1
General Practice	334	15.4	3	296	15.2	2
Surgery	336	15.5	2	269	13.8	3
Anaesthesia	198	9.1	5	214	11.0	4
Paediatrics and Child Health	204	9.4	4	172	8.9	5
Emergency Medicine	174	8.0	6	158	8.1	6
Obstetrics and Gynaecology	155	7.1	7	121	6.2	7
Psychiatry	96	4.4	8	96	4.9	8
Intensive Care Medicine	71	3.3	9	65	3.3	9
Dermatology	21	1.0	12	38	2.0	10
Ophthalmology	49	2.3	10	30	1.5	11
Radiology	36	1.7	11	29	1.5	12
Palliative Medicine	16	0.7	13	17	0.9	13
Sport and Exercise Medicine	11	0.5	15	16	0.8	14
Medical Administration (e.g. managing a hospital)	3	0.1	21	5	0.3	15
Pathology	11	0.5	14	5	0.3	16
Radiation Oncology	10	0.5	16	5	0.3	17
Addiction Medicine	1	0.0	22	4	0.2	18
Pain Medicine	1	0.0	24	4	0.2	19
Public Health Medicine	8	0.4	18	4	0.2	20
Sexual Health Medicine	9	0.4	17	4	0.2	21
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	7	0.3	19	2	0.1	22
Rehabilitation Medicine	5	0.2	20	2	0.1	23
Occupational and Environmental Medicine	1	0.0	23	0	0.0	24
Total	2,172	100.0	..	1,943	100.0	..

Factors influencing specialty choice for future practice

Table 24 shows the score and rank of various factors stated by the respondents' as influencing their choice of most preferred specialty of medicine. The final year medical students were asked to rank each 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 5 years was that of “Atmosphere/ work culture” and continues to score very highly at 4.15. The factor “Alignment with personal values” has become more influential since 2014, where it ranked 4th, to ranking 2nd in 2019 at 4.13.

The least influential factors were “financial costs of medical school education and/or debt” (1.78) which dropped one place, “financial costs of vocational training” (1.79), and “Influence of partners' occupation” (1.82). Across the previous 5 years, these factors have consistently ranked the lowest.

Overall, there continues to be little change in the ranking of these factors.

Table 24. Factors influencing choice of most preferred area of medicine

Factors influencing choice of most preferred area of medicine	2015		2016		2017		2018		2019	
	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean Score	Rank
Atmosphere/work culture typical of the discipline	4.12	1	4.09	1	4.14	1	4.12	1	4.15	1
Alignment with personal values	4.01	3	4.04	3	4.09	2	4.11	2	4.13	2
Experience of specialty as a medical student	4.04	2	4.05	2	4.07	3	4.09	3	4.04	3
Intellectual content of the specialty	3.99	4	3.98	4	4.01	4	4.02	4	4.00	4
General medical school experiences (e.g. mentors, discipline placements)	3.95	5	3.96	5	3.96	5	3.97	5	3.94	5
Influence of consultants/mentors	3.91	6	3.94	6	3.90	6	3.92	6	3.91	6
Self-appraisal of own skills/aptitudes	3.78	7	3.80	7	3.76	7	3.81	7	3.77	7
Opportunity for procedural work	3.69	8	3.69	8	3.71	8	3.70	8	3.69	8
Perceived opportunity to work flexible hours	3.46	9	3.43	10	3.45	10	3.49	9	3.51	9
Perceived amount of working hours	3.29	14	3.27	13	3.34	11	3.37	11	3.42	10
Type of patients typical of the discipline	3.45	10	3.49	9	3.47	9	3.47	10	3.39	11
Perceived job security	3.39	11	3.32	11	3.30	12	3.35	12	3.38	12
Perceived career advancement prospects	3.34	12	3.28	12	3.29	13	3.34	13	3.36	13
Availability of a vocational training placement	3.33	13	3.19	14	3.20	14	3.25	14	3.26	14
Self-appraisal of own domestic circumstances	3.25	15	3.18	15	3.19	15	3.23	15	3.24	15
Geographical location of most preferred specialty	3.02	17	2.96	17	2.98	17	2.97	17	3.00	16
Opportunity for research and /or teaching	3.04	16	3.02	16	3.00	16	3.04	16	2.97	17
Number of years required to complete training	2.93	18	2.87	18	2.87	18	2.94	18	2.96	18
Perceived financial prospects	2.60	19	2.49	19	2.52	19	2.59	19	2.60	19
Perceived prestige of the discipline	2.30	20	2.26	20	2.19	20	2.24	20	2.19	20
Risk of litigation and associated insurance costs	2.10	21	2.06	21	2.02	21	2.06	21	1.98	21
Influence of parents/relatives	1.95	22	1.91	22	1.85	22	1.92	22	1.85	22
Influence of partner's occupation	1.88	23	1.85	24	1.82	23	1.86	25	1.82	23
Financial costs of vocational training	1.85	25	1.82	25	1.81	25	1.87	23	1.79	24
Financial costs of medical school education and/or debt	1.85	24	1.85	23	1.81	24	1.86	24	1.78	25

Note: Scale: 1 = Not at all to 5 = A great deal.

SECTION 5: INTERNSHIP

Accepted internships by state

Final year students were asked to indicate in which state or territory they had accepted an internship position.

It should be noted that the time of year in which schools administer the survey would have a bearing on whether students had been offered an internship, thus the responses presented in the table below do not reflect the final number of internship positions accepted for the 2019 cohort nor are they necessarily a representative sample.

Table 25. Internship acceptance by state

Internship acceptance state/territory	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
NSW	498	26.5	569	27.5	520	26.7	588	27.4	626	31.2
VIC	481	25.6	518	25.0	552	28.4	618	28.8	508	25.3
QLD	510	27.2	506	24.4	461	23.7	466	21.7	404	20.1
WA	139	7.4	128	6.2	126	6.5	177	8.3	205	10.2
SA	94	5.0	101	4.9	105	5.4	96	4.5	83	4.1
TAS	52	2.8	65	3.1	71	3.7	75	3.5	65	3.2
ACT	41	2.2	79	3.8	30	1.5	65	3.0	57	2.8
Other country	38	2.0	83	4.0	54	2.8	41	1.9	36	1.8
NT	25	1.3	22	1.1	26	1.3	19	0.9	23	1.1
Total	1,878	100.0	2,071	100.0	1,945	100.0	2,145	100.0	2,007	100.0

Notes:

1. Low response rates from some states/territories in 2015 affected results, particularly NSW, Western Australia, South Australia, and the ACT
- 2 The time at which graduating students complete the survey will, to some extent, have a bearing on the number that have accepted an internship
3. The increase in numbers of people accepting internships to practice in countries other than Australia in 2016 is likely to have been impacted by the fact that 2016 was the first year substantial numbers graduated from the US-based Ochsner campus of the University of Queensland

APPENDIX: 2019 MSOD SURVEY RESPONSE RATES

In 2019, there were 3,889 final year students across all Australian medical schools of which 53 per cent (or 2,047) responded to the 2019 MSOD survey. The sample is fairly representative of the proportions in the different medical program lengths.

Table 26. Number of final year students across all Australian medical schools, showing course length

Length of Course	Final year students 2019		MSOD 2019	
	Number	Per cent	Number	Per cent
4-year course	2,361	60.7	1,210	59.9
5-year course	902	23.2	613	29.9
6-year course	626	16.1	224	10.9
Total	3,889	100.0	2,047	100.0

Source: Student Statistics 2020 and MSOD data.

It should be remembered that Tables 27 and 28 refer to the location where students were studying medicine (which may be different to where they identify their primary residence to be).

Table 27. Respondents by state/territory

State/territory of completion	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
NSW	546	27.2	645	28.5	598	28.2	590	26.7	645	31.5
VIC	509	25.4	543	24.0	567	26.8	660	29.9	553	27.0
QLD	571	28.5	621	27.5	539	25.5	500	22.7	419	20.5
WA	135	6.7	141	6.2	132	6.2	181	8.2	204	10.0
SA	136	6.8	148	6.5	148	7.0	92	4.2	80	3.9
TAS	74	3.7	81	3.6	86	4.1	97	4.4	75	3.7
ACT	36	1.8	82	3.6	47	2.2	86	3.9	71	3.5
Total	2,007	100.0	2,261	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Notes: Data for Flinders Medical School in Darwin are included in South Australia figures

Table 28. Respondents and students: comparison by state/territory

State/territory of study	Final year students 2019		MSOD respondents 2019	
	Number	Per cent	Number	Per cent
NSW	1,096	28.2	645	31.5
VIC	962	24.7	553	27.0
QLD	984	25.3	419	20.5
WA	335	8.6	204	10.0
SA	307	7.9	80	3.9
TAS	108	2.8	75	3.7
ACT	97	2.5	71	3.5
Total	3,889	100.0	2,047	100.0

Notes: Data for Flinders Medical School in Darwin are included in South Australia figures

Medical school response

The proportion of survey respondents by medical school is presented in Table 29.

Table 29. Respondents by medical school

School of completion	2015		2016		2017		2018		2019	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Australian National University	36	1.8	82	3.6	47	2.2	86	3.9	71	3.5
Bond University	53	2.6	46	2.0	27	1.3	56	2.5	53	2.6
Deakin University	112	5.6	105	4.6	100	4.7	117	5.3	111	5.4
Flinders University	84	4.2	97	4.3	93	4.4	12	0.5	29	1.4
Griffith University	100	5.0	29	1.3	83	3.9	92	4.2	44	2.1
James Cook University	22	1.1	56	2.5	100	4.7	69	3.1	93	4.5
Monash University	238	11.9	242	10.7	303	14.3	350	15.9	347	17.0
The University of Adelaide	52	2.6	51	2.3	55	2.6	80	3.6	51	2.5
The University of Melbourne	159	7.9	196	8.7	164	7.7	193	8.7	95	4.6
The University of Newcastle / University of New England	103	5.1	54	2.4	73	3.4	100	4.5	137	6.7
The University of New South Wales	88	4.4	126	5.6	124	5.9	131	5.9	80	3.9
The University of Notre Dame (Fremantle)	39	1.9	60	2.7	40	1.9	48	2.2	51	2.5
The University of Notre Dame (Sydney)	8	0.4	81	3.6	51	2.4	53	2.4	48	2.3
The University of Queensland	396	19.7	490	21.7	329	15.5	283	12.8	229	11.2
The University of Sydney	190	9.5	268	11.9	273	12.9	252	11.4	256	12.5
University of Tasmania	74	3.7	81	3.6	86	4.1	97	4.4	75	3.7
The University of Western Australia	96	4.8	81	3.6	92	4.3	133	6.0	153	7.5
Western Sydney University	97	4.8	43	1.9	24	1.1	23	1.0	64	3.1
University of Wollongong	60	3.0	73	3.2	53	2.5	31	1.4	60	2.9
Total	2,007	100.0	2,261	100.0	2,117	100.0	2,206	100.0	2,047	100.0

Note: This survey is intended to capture feedback from students exiting medical school. Therefore, for any respondents who repeated their final year, only their latest response is reported in the data used throughout this 2020 Report.

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