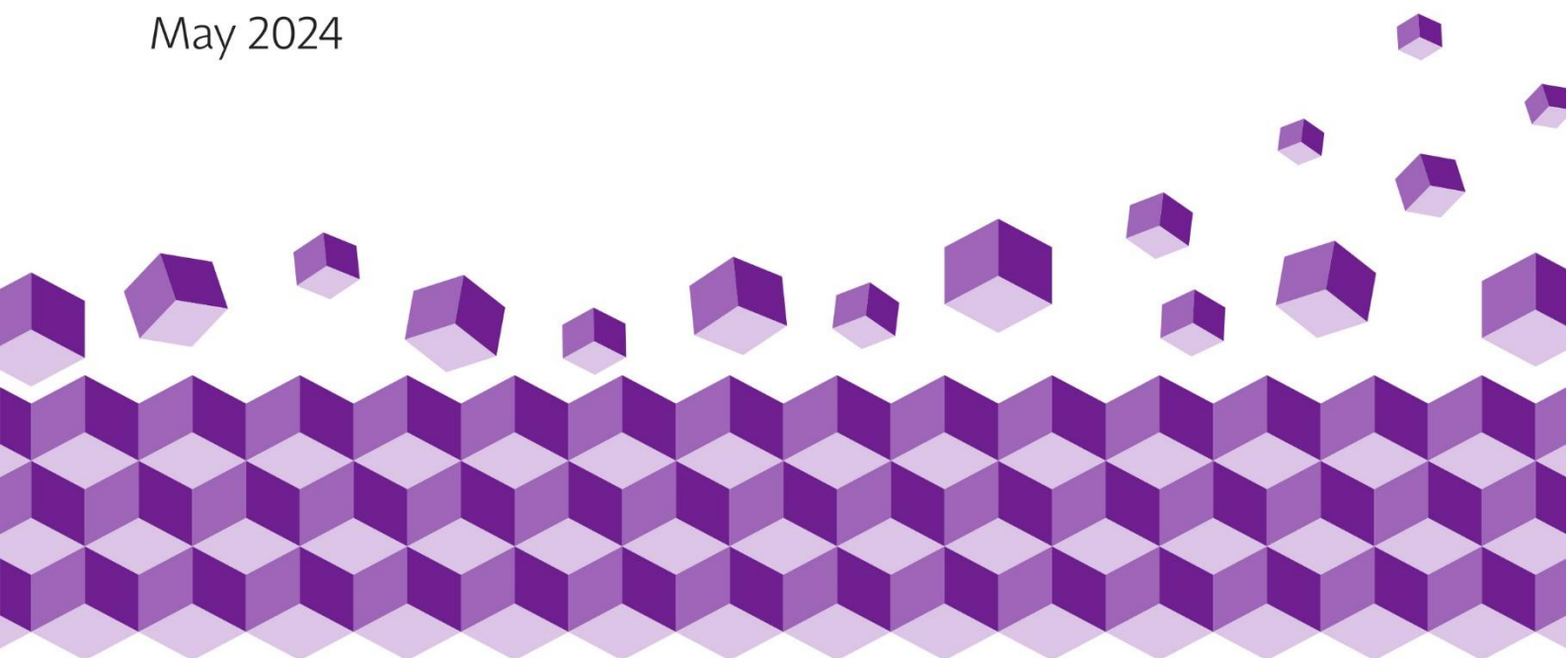


National report on doctors three years after graduating from New Zealand medical schools in 2011–2019

May 2024



Prepared by:

The New Zealand MSOD Steering Group.

University of Otago:

Prof T. Wilkinson, Dr J. Rudland, Dr A Salkeld.

University of Auckland:

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Otago Medical School
Te Kura Hauora o Ōtākou



**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 2014 and 2023 to nine cohorts of doctors who had graduated from a New Zealand medical school three years previously (PGY3), between 2011 and 2019. A total of 1,866 from the 3,918 eligible doctors (47.6%) completed questionnaires.

Over this time there has been stability in the proportion of women ($\approx 58\%$) and men ($\approx 41\%$) responding: this represents a slight over-representation of women, who constitute 55% of the 2011 to 2019 graduates. The median age of the respondents is steady, at about 27.5 years. This also matches the median age of the 2011 to 2019 graduate group at PGY3.

The self-identified ethnicity of respondents indicates a trend toward an increasing prevalence of doctors identifying as Māori and/or Pacific people, however the proportions still underrepresent the proportion of Māori and Pacific people in the New Zealand population.

Three years after graduating, 91% of respondents agree or strongly agree their internship is preparing them for work as a doctor, 52% of respondents are working as a registrar and/or are in training under supervision, 40% are House Officers, and 42% are enrolled in a College training programme.

The majority of those not currently in a vocational training programme intend to enter one in their fourth year post-graduation (PGY4) (43%), or fifth year post-graduation (PGY5) (38%).

Only 3% of respondents intend to work in a clinical role outside New Zealand within the next two years. In the longer term, 97% of respondents intend to work in New Zealand: 62% in a major city, 29% in a regional centre or large town, and the remainder in smaller towns.

The percentage of respondents in PGY3 decided on a future medical specialty is about 84%. Consistently, the top preference is General Practice (22%), followed by Internal Medicine and Surgery. Nearly half the respondents selected one of these three specialties as their first-choice preference. These numbers are not reflected in some current college training enrolments in PGY3, which may be due to selection requirements or delay in committing to a specialty.

Those decided on an Internal Medicine specialty favour the sub-specialties of Cardiology, Gastroenterology and Hepatology, and General Medicine; those decided on Surgery favour General Surgery and Orthopaedic Surgery. Close to three-quarters (72%) of respondents indicated an interest in medical teaching, and nearly a half (47%) an interest in research.

Three years after graduation, respondents indicate both external and internal factors influence their specialty preference, with the highest ranked factors being *atmosphere/work culture typical of the discipline*, *influence of consultants/mentors*, *work experience since graduation*, and *self-appraisal of own skills/aptitudes* in addition to *interest in helping people*. By comparison, the least influential factors influencing specialty preference continue to include *financial costs of vocational training*, *risk of litigation and associated insurance costs*, *financial costs of medical school education and/or debt*, and *influence of parents/relatives*.

Introduction

The Medical Schools Outcomes Database and Longitudinal Tracking Project (MSOD) is an on-going collaborative longitudinal study instigated by Medical Deans Australia and New Zealand (MDANZ)¹. 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, five, and eight year(s) after graduation (PGY1, PGY3, PGY5, PGY8). For each survey after graduation, respondents may not be at the same stage of their medical careers, as some may opt to take time out or be working part time, which may affect career progression.

This report presents PGY3 summary and trend data for nine years of graduates from the University of Auckland and the University of Otago, between 2011 and 2019. For more details on response rates and methods, see Appendices A and B.

¹ Poole P, Wilkinson TJ, Bagg W, Freegard J, Hyland F, Jo E, Kool B, Roberts E, Rudland J, Smith B, Verstappen A. Developing New Zealand's medical workforce: realising the potential of longitudinal career tracking. NZ Med J 2019;132:1495

Results

Some table cells in this report represent small numbers of respondents. Cells reporting on fewer than three respondents have been suppressed (indicated by a “..C” entry, see). To protect respondents’ privacy, frequencies in all tables have been randomly rounded to a multiple of three.

The total frequency and percentage columns for each table do not include suppressed cells. Where a row only contains suppressed cells, the total cell will also be suppressed. Care has been taken to ensure the proportions presented here are a reasonable reproduction of the original data. The methods used are detailed in Appendix B.

Figure 1. Example table with low frequency cells that have been suppressed.

Table 2. Gender of respondents

Gender	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Female	69	62.2%	108	57.1%	132	64.7%	309	61.3%
Gender diverse	..C	..C	-	-	-	-	..C	..C
Male	42	37.8%	81	42.9%	72	35.3%	195	38.7%

Base: all respondents. Question response rate: 97.1%

Not all respondents answered each question, so the numbers in each table vary. Where respondents can provide multiple responses to a question, an additional header line indicating the number of respondents that answered the question (n) is included.

Figure 2. Example table where multiple responses are allowed per respondent.

Table 5. Self-identified ethnicity of respondents. Percentages total more than 100% as respondents may identify with more than one ethnicity. The total number of respondents for each year are provided.

Ethnicity	Survey year							
	2019†		2020		2021		Total	
	n = 114		n = 195		n = 201		n = 510	
	n	%	n	%	n	%	n	%
Māori	9	7.9%	18	9.2%	12	6.0%	39	7.6%
Pacific people	..C	..C	3	1.5%	3	1.5%	6	1.2%
New Zealand European	78	68.4%	138	70.8%	138	68.7%	354	69.4%
Other	36	31.6%	60	30.8%	75	37.3%	171	33.5%

Base: all respondents. Question response rate: 98.3%

Column headings refer to the year in which the questionnaires were completed, except for tables with low total frequencies, where only total columns are presented.

Response rates

The PGY3 questionnaire was first issued to University of Otago graduates in 2014, before proceeding to be administered nationally from 2015. The number of students graduating from these New Zealand medical schools between 2011 and 2019 was 3918. This is the total cohort who were eligible to respond to the PGY3 Questionnaires. Every effort was made to contact all those in the cohort.

The number of respondents across the survey time period (2014 to 2022) was 1866, giving an overall response rate of 47.6%. The response rates for each graduating year are presented in **Table 1**.

Table 1. Response rate by university of students completing study (cohort) and questionnaires

Gender	Survey year																			
	2014		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
University of Auckland	-	-	45	27.8%	54	27.3%	69	35.4%	75	38.5%	84	38.4%	81	36.0%	96	38.1%	117	43.8%	621	36.3%
			162		198		195		195		219		225		252		267		1713	
University of Otago	90	40.5%	159	68.8%	174	71.6%	129	55.1%	171	70.4%	177	64.8%	135	51.7%	114	41.3%	96	43.2%	1245	56.5%
	222		231		243		234		243		273		261		276		222		2205	
Total	90	40.5%	204	51.9%	228	51.7%	198	46.2%	246	56.2%	261	53.0%	216	44.4%	210	39.8%	213	43.6%	1866	47.6%
	222		393		441		429		438		492		486		528		489		3918	

Further details on response rates are available in Appendix A: Response rate.

Demographics

Table 2. Gender of respondents

Gender	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Female	57	63.3%	120	58.8%	138	61.3%	111	56.1%	141	58.0%	141	54.0%	126	59.2%	126	60.9%	120	56.3%	1080	58.3%
Gender diverse	-	-	-	-	-	-	..C	..C	-	-	3	1.1%	-	-	3	1.4%	3	1.4%	9	0.5%
Male	33	36.7%	84	41.2%	87	38.7%	87	43.9%	102	42.0%	117	44.8%	87	40.8%	78	37.7%	90	42.3%	765	41.3%

Base: all respondents. Question response rate: 99.6%.

Table 3. Age range of respondents. Age is calculated at 30 November in the year surveyed, and grouped into five-year ranges.

Age group	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
20-24 years	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1.5%	3	0.2%
25-29 years	75	80.6%	186	92.5%	192	85.3%	171	86.4%	204	84.0%	210	81.4%	171	80.3%	153	79.7%	159	81.5%	1521	83.7%
30-34 years	15	16.1%	15	7.5%	21	9.3%	21	10.6%	24	9.9%	36	14.0%	27	12.7%	24	12.5%	24	12.3%	207	11.4%
35-39 years	3	3.2%	..C	..C	9	4.0%	..C	..C	9	3.7%	12	4.7%	9	4.2%	12	6.2%	6	3.1%	60	3.3%
40 years and over	-	-	..C	..C	3	1.3%	6	3.0%	6	2.5%	..C	..C	6	2.8%	3	1.6%	3	1.5%	27	1.5%

Base: all respondents. Question response rate: 97.3%.

[†] University of Otago data only in 2014.

Table 4. Median age and range of respondents. Age is calculated at 30 November in the year surveyed.

Age in years	Survey year									Total
	2014 [†]	2015	2016	2017	2018	2019	2020	2021	2022	
Median	27.6	27.4	27.4	27.4	27.4	27.4	27.6	27.8	27.5	27.5
Minimum	25.5	25.7	25.2	25.9	25.5	25.6	25.8	26.2	24.9	24.9
Maximum	36.4	43.3	50.7	48.1	43.9	45.1	48.7	45.9	46.6	50.7

Base: all respondents. Question response rate: 97.3%.

Table 5. Self-identified ethnicity of respondents. Percentages total more than 100% as respondents may identify with more than one ethnicity. The total number of respondents for each year are provided.

Ethnic identity	Survey year										Total									
	2014 [†]		2015		2016		2017		2018			2019		2020		2021		2022		
	n	%	n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%	
	n = 90		n = 204		n = 222		n = 198		n = 243		n = 261		n = 213		n = 210		n = 207		n = 1848	
Māori	6	6.7%	15	7.4%	9	4.1%	15	7.6%	24	9.9%	42	16.1%	15	7.0%	27	12.9%	30	14.5%	183	9.9%
Pacific people	3	3.3%	3	1.5%	9	4.1%	9	4.5%	6	2.5%	12	4.6%	12	5.6%	12	5.7%	6	2.9%	72	3.9%
New Zealand European	66	73.3%	147	72.1%	147	66.2%	138	69.7%	171	70.4%	180	69.0%	138	64.8%	135	64.3%	141	68.1%	1263	68.3%
Other	27	30.0%	63	30.9%	81	36.5%	54	27.3%	78	32.1%	81	31.0%	75	35.2%	75	35.7%	75	36.2%	609	33.0%

Base: all respondents. Question response rate: 99.2%.

[†] University of Otago data only in 2014.

Table 6. Citizenship of respondents

Citizenship	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
New Zealand citizen	75	83.3%	183	91.0%	204	90.7%	183	91.0%	234	95.1%	237	90.8%	204	95.8%	204	97.1%	204	97.1%	1728	93.1%
New Zealand Permanent Resident	9	10.0%	3	1.5%	12	5.3%	9	4.5%	9	3.7%	12	4.6%	6	2.8%	3	1.4%	3	1.4%	66	3.6%
Australian citizen	3	3.3%	12	6.0%	3	1.3%	3	1.5%	..C	..C	3	1.1%	..C	..C	-	-	3	1.4%	27	1.5%
Visa holder	3	3.3%	..C	..C	..C	..C	3	1.5%	-	-	3	1.1%	3	1.4%	3	1.4%	..C	..C	15	0.8%
Other	..C	..C	3	1.5%	6	2.7%	3	1.5%	3	1.2%	6	2.3%	-	-	-	-	-	-	21	1.1%

Base: all respondents. Question response rate: 99.8%.

[Relationships and dependents](#)

Table 7. Relationship status of respondents

Relationship status	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Single	33	36.7%	54	26.9%	69	31.1%	42	20.9%	69	28.0%	75	29.1%	57	26.8%	66	31.0%	51	23.9%	516	27.8%
In a relationship but not living with partner	6	6.7%	21	10.4%	27	12.2%	27	13.4%	27	11.0%	24	9.3%	36	16.9%	27	12.7%	27	12.7%	222	12.0%
Living with partner	30	33.3%	60	29.9%	63	28.4%	78	38.8%	84	34.1%	90	34.9%	69	32.4%	90	42.3%	87	40.8%	651	35.1%
Married	21	23.3%	66	32.8%	60	27.0%	51	25.4%	66	26.8%	69	26.7%	51	23.9%	30	14.1%	45	21.1%	459	24.7%
Separated, divorced, widowed	-	-	-	-	3	1.4%	3	1.5%	-	-	-	-	-	-	..C	..C	3	1.4%	9	0.5%

Base: all respondents. Question response rate: 99.8%.

[†] University of Otago data only in 2014.

Table 8. Respondents' number of children, aged 16 years or under

Children	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
0	78	86.7%	174	86.6%	204	89.5%	174	89.2%	219	90.1%	228	86.4%	189	87.5%	189	90.0%	189	90.0%	1644	88.5%
1	9	10.0%	18	9.0%	12	5.3%	15	7.7%	9	3.7%	24	9.1%	15	6.9%	15	7.1%	15	7.1%	132	7.1%
2 or more	3	3.3%	9	4.5%	12	5.3%	6	3.1%	15	6.2%	12	4.5%	12	5.6%	6	2.9%	6	2.9%	81	4.4%

Base: all respondents. Question response rate: 99.4%.

Table 9. Respondents' number of other dependants, excluding children aged 16 years or under

Other dependants	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
0	81	90.0%	180	93.8%	210	93.3%	180	93.8%	228	92.7%	225	88.2%	192	91.4%	192	92.8%	192	92.8%	1680	92.1%
1	9	10.0%	12	6.2%	9	4.0%	9	4.7%	18	7.3%	24	9.4%	12	5.7%	12	5.8%	12	5.8%	117	6.4%
2 or more	-	-	..C	..C	6	2.7%	3	1.6%	-	-	6	2.4%	6	2.9%	3	1.4%	3	1.4%	27	1.5%

Base: all respondents. Question response rate: 98.0%.

[†] University of Otago data only in 2014.

Additional tertiary qualifications

Table 10. Respondents undertaking or completing additional tertiary qualifications since medical school

Additional tertiary qualifications	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
No additional qualifications	45	50.0%	111	56.1%	120	53.3%	108	54.5%	141	57.3%	171	66.3%	132	61.1%	132	62.0%	129	60.6%	1089	58.6%
One additional qualification	42	46.7%	75	37.9%	90	40.0%	69	34.8%	84	34.1%	72	27.9%	72	33.3%	69	32.4%	72	33.8%	645	34.7%
Two or more additional qualifications	3	3.3%	12	6.1%	15	6.7%	21	10.6%	21	8.5%	15	5.8%	12	5.6%	12	5.6%	12	5.6%	123	6.6%

Base: all respondents. Question response rate: 99.6%.

Table 11. Additional tertiary qualifications undertaken or completed by respondents since graduating from medical school, ordered by total column. Percentages total to more than 100%. The total number of respondents for each year are provided.

Additional tertiary qualification type	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Postgraduate Diploma	33	68.8%	72	75.0%	93	83.8%	81	71.1%	90	71.4%	72	68.6%	69	74.2%	66	73.3%	63	70.0%	639	73.2%
Postgraduate Certificate	6	12.5%	9	9.4%	12	10.8%	24	21.1%	24	19.0%	24	22.9%	12	12.9%	9	10.0%	15	16.7%	135	15.5%
Master's Degree	3	6.2%	9	9.4%	6	5.4%	6	5.3%	3	2.4%	6	5.7%	6	6.5%	3	3.3%	9	10.0%	51	5.8%
Doctoral Degree	3	6.2%	3	3.1%	3	2.7%	3	2.6%	..C	..C	-	-	..C	..C	6	6.7%	3	3.3%	21	2.4%
Certificate of Proficiency	-	-	..C	..C	-	-	3	2.6%	..C	..C	6	5.7%	-	-	..C	..C	3	3.3%	12	1.4%
Bachelor's Degree	-	-	3	3.1%	-	-	..C	..C	3	2.4%	3	2.9%	-	-	-	-	-	-	9	1.0%

Base: respondents undertaking or completed one or more additional qualifications since graduation. Question response rate: 98.3%.

[†] University of Otago data only in 2014.

Table 12. “My basic medical degree prepared me for my work as a doctor.”

Response	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Strongly agree	9	9.7%	21	10.4%	21	9.6%	21	10.8%	27	11.1%	27	10.8%	18	8.5%	24	11.3%	15	7.8%	165	10.1%
Agree	66	71.0%	129	64.2%	156	71.2%	132	67.7%	159	65.4%	150	60.2%	138	64.8%	126	59.2%	120	62.5%	1176	64.7%
Neutral	9	9.7%	36	17.9%	30	13.7%	33	16.9%	33	13.6%	45	18.1%	42	19.7%	39	18.3%	39	20.3%	306	16.8%
Disagree or Strongly disagree	9	9.7%	15	7.5%	12	5.5%	9	4.6%	24	9.9%	27	10.8%	15	7.0%	24	11.3%	18	9.4%	153	8.5%

Base: all respondents. Question response rate: 97.3%.

Table 13. “My medical work and training since graduation prepared me for my work as a doctor”

Response	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Strongly agree	36	38.7%	75	37.3%	69	31.1%	63	33.3%	90	37.5%	87	35.8%	75	34.7%	78	38.2%	60	31.2%	633	35.1%
Agree	48	51.6%	108	53.7%	126	56.8%	114	60.3%	132	55.0%	129	53.1%	126	58.3%	111	54.4%	114	59.4%	1008	56.0%
Neutral	6	6.5%	15	7.5%	18	8.1%	12	6.3%	9	3.8%	21	8.6%	12	5.6%	12	5.9%	12	6.2%	117	6.5%
Disagree or Strongly disagree	3	3.2%	3	1.5%	9	4.1%	..C	..C	9	3.8%	6	2.5%	3	1.4%	3	1.5%	6	3.1%	42	2.4%

Base: all respondents. Question response rate: 97.0%.

[†] University of Otago data only in 2014.

[Situation two years after graduation \(PGY2\)](#)

Table 14. Main location in the second year after graduation

Main location	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Working in New Zealand	-	-	192	97.0%	207	98.6%	189	98.4%	231	96.2%	240	98.8%	210	97.2%	207	100%	198	98.5%	1674	98.1%
Working outside New Zealand	-	-	6	3.0%	3	1.4%	3	1.6%	9	3.8%	3	1.2%	6	2.8%	..C	..C	3	1.5%	33	1.9%

Base: all respondents. Question response rate: 96.0%.

Table 15. Main activity in the second year after graduation

Main activity	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
A house officer	-	-	192	94.1%	204	91.9%	186	95.4%	231	96.2%	240	97.6%	204	94.4%	201	95.7%	192	97.0%	1650	95.3%
A registrar	-	-	6	2.9%	9	4.1%	6	3.1%	3	1.2%	3	1.2%	3	1.4%	3	1.4%	..C	..C	33	1.9%
Doing other clinical work	-	-	..C	..C	3	1.4%	..C	..C	3	1.2%	..C	..C	3	1.4%	-	-	-	-	9	0.5%
Not working clinically as a doctor	-	-	6	2.9%	6	2.7%	3	1.5%	3	1.2%	3	1.2%	6	2.8%	6	2.9%	6	3.0%	39	2.3%

Base: all respondents. Question response rate: 97.5%.

[†] Question was not asked in 2014.

Table 16. Situation of those not working clinically as a doctor in the second year after graduation

Situation of those not working medically as a doctor	Total (all years) †	
	n = 36	
	n	%
Doing medically-related work that is non-clinical (e.g., medico-legal, teaching, research, committee work)	6	16.7%
Working in a non-medical role	9	25.0%
Parental leave	12	33.3%
Home duties / childcare / family responsibilities	6	16.7%
Enrolled as a student	6	16.7%
Other extended leave (e.g., sick leave, long service leave, travel, sabbatical)	6	16.7%
Have permanently left the medical profession	6	16.7%

Base: respondents not working medically as a doctor in their second year after graduation. Question response rate: 94.7%.

† Question was not asked in 2014.

Table 17. Region of hospital / clinic based at when working as a Registrar / House officer / Intern in the second year after graduation

Region of workplace	Survey year										Total									
	2014 [†]		2015		2016		2017		2018			2019		2020		2021		2022		
	n	%	n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%	
Auckland	-	-	42	21.5%	51	24.6%	54	29.0%	60	26.7%	69	29.5%	48	24.2%	72	35.3%	60	33.3%	456	28.0%
Bay of Plenty	-	-	21	10.8%	18	8.7%	18	9.7%	21	9.3%	21	9.0%	21	10.6%	18	8.8%	12	6.7%	150	9.2%
Canterbury	-	-	21	10.8%	36	17.4%	27	14.5%	42	18.7%	39	16.7%	27	13.6%	24	11.8%	21	11.7%	237	14.5%
Gisborne	-	-	6	3.1%	3	1.4%	3	1.6%	3	1.3%	3	1.3%	..C	..C	6	2.9%	3	1.7%	27	1.7%
Hawke's Bay	-	-	9	4.6%	12	5.8%	9	4.8%	9	4.0%	6	2.6%	9	4.5%	9	4.4%	9	5.0%	72	4.4%
Manawatu-Whanganui	-	-	9	4.6%	15	7.2%	9	4.8%	12	5.3%	18	7.7%	12	6.1%	9	4.4%	6	3.3%	90	5.5%
Marlborough	-	-	3	1.5%	3	1.4%	3	1.6%	..C	..C	3	1.3%	3	1.5%	3	1.5%	3	1.7%	21	1.3%
Nelson	-	-	9	4.6%	6	2.9%	9	4.8%	6	2.7%	6	2.6%	6	3.0%	3	1.5%	3	1.7%	48	2.9%
Northland	-	-	9	4.6%	9	4.3%	6	3.2%	9	4.0%	9	3.8%	12	6.1%	3	1.5%	6	3.3%	63	3.9%
Otago	-	-	18	9.2%	9	4.3%	6	3.2%	12	5.3%	9	3.8%	12	6.1%	6	2.9%	9	5.0%	81	5.0%
Southland	-	-	3	1.5%	3	1.4%	3	1.6%	6	2.7%	6	2.6%	3	1.5%	6	2.9%	3	1.7%	33	2.0%
Taranaki	-	-	9	4.6%	9	4.3%	6	3.2%	6	2.7%	6	2.6%	6	3.0%	9	4.4%	9	5.0%	60	3.7%
Tasman	-	-	3	1.5%	3	1.4%	-	-	-	-	-	-	-	-	3	1.5%	-	-	9	0.6%
Taupo [‡]	-	-	6	3.1%	6	2.9%	-	-	-	-	-	-	-	-	-	-	-	-	93	5.7%
Waikato [‡]	-	-	-	-	-	-	15	8.1%	18	8.0%	12	5.1%	12	6.1%	12	5.9%	12	6.7%	-	-
Wellington Region	-	-	24	12.3%	24	11.6%	18	9.7%	21	9.3%	27	11.5%	27	13.6%	21	10.3%	21	11.7%	183	11.2%
Westland	-	-	3	1.5%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.2%
Country other than New Zealand	-	-	-	-	-	-	..C	..C	-	-	-	-	..C	..C	..C	..C	3	1.7%	3	0.2%

Base: respondents working medically as a doctor in their second year after graduation. Question response rate: 92.3%.

[†] Question was not asked in 2014.

[‡] Waikato and Taupo regions were a combined option prior to the 2017 survey.

Table 18. Medical work / placements by geographical location in the second year after graduation. Percentages total to more than 100% as respondents can indicate multiple placement locations. The total number of respondents for each year are provided.

Additional tertiary qualification type	Survey year										Total										
	2014 [†]		2015		2016		2017		2018			2019		2020		2021		2022		n = 1791	
	n	%	n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%	n	%
Major city (pop. 100,000 or greater)	57	63.3%	126	62.7%	120	54.8%	120	63.5%	162	67.5%	156	63.4%	123	58.6%	147	70.0%	132	71.0%	1143	63.8%	
Regional centre (pop. 25,000 – 100,000)	33	36.7%	63	31.3%	69	31.5%	63	33.3%	69	28.7%	75	30.5%	72	34.3%	63	30.0%	54	29.0%	561	31.3%	
Small town / community (pop. 25,000 or fewer)	6	6.7%	21	10.4%	24	11.0%	9	4.8%	27	11.2%	30	12.2%	27	12.9%	27	12.9%	24	12.9%	195	10.9%	

Base: respondents working medically as a doctor in their second year after graduation. Question response rate: 96.2%.

Table 19. Enrolment in a college training programme the second year after graduation

Enrolled in a college training programme	Survey year										Total										
	2014 [‡]		2015		2016		2017		2018			2019		2020		2021		2022		n = 1791	
	n	%	n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%	n	%
Yes	-	-	42	21.2%	36	16.4%	45	23.8%	36	15.0%	30	12.2%	30	14.3%	24	11.6%	27	13.6%	270	15.8%	
No	-	-	156	78.8%	183	83.6%	144	76.2%	204	85.0%	216	87.8%	180	85.7%	183	88.4%	171	86.4%	1437	84.2%	

Base: respondents working medically as a doctor in their second year after graduation. Question response rate: 96.5%.

[†] University of Otago data only in 2014.

[‡] Question was not asked in 2014.

Table 20. College training programme enrolled in, during the second year after graduation

College training programme	Survey year										Total									
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	-	-	27	69.2%	30	83.3%	36	85.7%	27	75.0%	24	80.0%	24	80.0%	21	77.8%	21	77.8%	210	78.7%
Paediatrics and Child Health	-	-	9	23.1%	3	8.3%	6	14.3%	6	16.7%	6	20.0%	6	20.0%	6	22.2%	6	22.2%	48	18.0%
Anaesthesia	-	-	-	-	3	8.3%	-	-	-	-	-	-	-	..C	..C	-	-	-	3	1.1%
Emergency Medicine	-	-	3	7.7%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1.1%
Psychiatry	-	-	..C	..C	-	-	-	-	3	8.3%	-	-	-	-	-	-	-	-	3	1.1%
Dual Vocational Training Programme	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C
General Practice	-	-	-	-	-	-	-	-	..C	..C	..C	..C	-	-	-	-	-	-	..C	..C
Intensive Care Medicine	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C

Base: respondents enrolled in a college training programme in their second year after graduation. Question response rate: 97.8%.

[†] Question was not asked in 2014.

[Situation three years after graduation \(PGY3\)](#)

Table 21. Main location in the third year after graduation

Main location	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Working in New Zealand	81	87.1%	186	93.9%	204	94.4%	180	95.2%	219	97.3%	219	94.8%	204	97.1%	201	97.1%	198	95.7%	1692	95.3%
Working outside New Zealand	12	12.9%	12	6.1%	12	5.6%	9	4.8%	6	2.7%	12	5.2%	6	2.9%	6	2.9%	9	4.3%	84	4.7%

Base: all respondents. Question response rate: 95.6%.

Table 22. Main activity in the third year after graduation

Main activity	Survey year																			
	2014 [‡]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
A registrar	-	-	99	49.3%	114	50.7%	108	56.2%	123	51.2%	120	49.4%	117	54.9%	111	53.6%	114	53.5%	906	52.2%
A house officer	-	-	78	38.8%	87	38.7%	72	37.5%	96	40.0%	96	39.5%	84	39.4%	90	43.5%	87	40.8%	690	39.8%
Doing other clinical work	-	-	12	6.0%	9	4.0%	3	1.6%	6	2.5%	9	3.7%	3	1.4%	3	1.4%	3	1.4%	48	2.8%
Not working clinically as a doctor	-	-	12	6.0%	15	6.7%	9	4.7%	15	6.2%	18	7.4%	9	4.2%	3	1.4%	9	4.2%	90	5.2%

Base: all respondents. Question response rate: 98.2%.

[†] University of Otago data only in 2014.

[‡] Question was not asked in 2014.

Table 23. Situation of those not working clinically as a doctor in the third year after graduation

Situation of those not working medically as a doctor	Total (all years) †	
	n = 84	
	n	%
Doing medically-related work that is non-clinical (e.g., medico-legal, teaching, research, committee work)	21	25.0%
Working in a non-medical role	24	28.6%
Parental leave	9	10.7%
Home duties / childcare / family responsibilities	9	10.7%
Enrolled as a student	15	17.9%
Other extended leave (e.g., sick leave, long service leave, travel, sabbatical)	24	28.6%
Have permanently left the medical profession	6	7.1%

Base: respondents not working medically as a doctor in their third year after graduation. Question response rate: 100.0%.

† Question was not asked in 2014.

Table 24. Region of hospital / clinic based at when working as a Registrar / House officer / Intern in the third year after graduation

Region of workplace	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
Auckland	12	13.8%	48	25.0%	57	27.9%	63	33.9%	51	23.9%	63	28.8%	45	21.4%	66	32.8%	66	32.8%	471	27.5%
Bay of Plenty	9	10.3%	21	10.9%	12	5.9%	15	8.1%	18	8.5%	18	8.2%	21	10.0%	21	10.4%	21	10.4%	156	9.1%
Canterbury	15	17.2%	24	12.5%	27	13.2%	24	12.9%	39	18.3%	33	15.1%	30	14.3%	24	11.9%	27	13.4%	243	14.2%
Gisborne	3	3.4%	3	1.6%	..C	..C	-	-	3	1.4%	3	1.4%	3	1.4%	3	1.5%	3	1.5%	21	1.2%
Hawke's Bay	12	13.8%	6	3.1%	12	5.9%	6	3.2%	12	5.6%	12	5.5%	12	5.7%	12	6.0%	12	6.0%	96	5.6%
Manawatu-Whanganui	6	6.9%	9	4.7%	15	7.4%	12	6.5%	12	5.6%	21	9.6%	9	4.3%	12	6.0%	3	1.5%	99	5.8%
Marlborough	3	3.4%	3	1.6%	3	1.5%	3	1.6%	..C	..C	..C	..C	..C	..C	..C	..C	-	-	12	0.7%
Nelson	3	3.4%	6	3.1%	6	2.9%	3	1.6%	6	2.8%	6	2.7%	6	2.9%	3	1.5%	3	1.5%	42	2.5%
Northland	..C	..C	6	3.1%	9	4.4%	9	4.8%	12	5.6%	6	2.7%	12	5.7%	9	4.5%	6	3.0%	69	4.0%
Otago	6	6.9%	18	9.4%	9	4.4%	9	4.8%	15	7.0%	9	4.1%	9	4.3%	6	3.0%	12	6.0%	93	5.4%
Southland	3	3.4%	3	1.6%	6	2.9%	6	3.2%	6	2.8%	6	2.7%	6	2.9%	3	1.5%	3	1.5%	42	2.5%
Taranaki	3	3.4%	9	4.7%	6	2.9%	6	3.2%	6	2.8%	6	2.7%	9	4.3%	6	3.0%	9	4.5%	60	3.5%
Tasman	-	-	3	1.6%	-	-	-	-	-	-	-	-	-	-	..C	..C	-	-	3	0.2%
Taupo [‡]	-	-	6	3.1%	9	4.4%	-	-	-	-	-	-	-	-	-	-	-	-	90	5.3%
Waikato [‡]	-	-	-	-	-	-	12	6.5%	15	7.0%	9	4.1%	12	5.7%	12	6.0%	15	7.5%	-	-
Wellington Region	12	13.8%	24	12.5%	33	16.2%	18	9.7%	12	5.6%	27	12.3%	27	12.9%	21	10.4%	15	7.5%	189	11.0%
Westland	-	-	3	1.6%	-	-	-	-	3	1.4%	..C	..C	3	1.4%	-	-	-	-	9	0.5%
Country other than New Zealand	-	-	-	-	-	-	..C	..C	3	1.4%	..C	..C	6	2.9%	3	1.5%	6	3.0%	18	1.1%

Base: respondents working medically as a doctor in their third year after graduation. Question response rate: 91.9%.

[†] University of Otago data only in 2014.

[‡] Waikato and Taupo regions were a combined option prior to the 2017 survey.

Table 25. Medical work / placements by geographical location in the third year after graduation. Percentages total to more than 100% as respondents can indicate multiple placement locations. The total number of respondents for each year are provided.

Additional tertiary qualification type	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n = 93		n = 201		n = 222		n = 192		n = 240		n = 243		n = 210		n = 210		n = 192		n = 1803	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Major city (pop. 100,000 or greater)	57	61.3%	135	67.2%	138	62.2%	132	68.8%	150	62.5%	159	65.4%	135	64.3%	153	72.9%	144	75.0%	1203	66.7%
Regional centre (pop. 25,000 – 100,000)	36	38.7%	60	29.9%	72	32.4%	60	31.2%	72	30.0%	78	32.1%	78	37.1%	63	30.0%	51	26.6%	570	31.6%
Small town / community (pop. 25,000 or fewer)	9	9.7%	18	9.0%	21	9.5%	15	7.8%	27	11.2%	21	8.6%	18	8.6%	21	10.0%	18	9.4%	168	9.3%

Base: respondents working medically as a doctor in their third year after graduation. Question response rate: 97.0%.

Table 26. Enrolment in a college training programme the third year after graduation

Enrolled in a college training programme	Survey year																			
	2014 [‡]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Yes	-	-	96	47.8%	90	41.1%	96	50.0%	99	41.2%	93	37.8%	87	40.8%	84	40.6%	81	38.6%	726	42.0%
No	-	-	105	52.2%	129	58.9%	96	50.0%	141	58.8%	153	62.2%	126	59.2%	123	59.4%	129	61.4%	1002	58.0%

Base: respondents working medically as a doctor in their third year after graduation. Question response rate: 97.6%.

[†] University of Otago data only in 2014.

[‡] Question was not asked in 2014.

Table 27. College training programme enrolled in, during the third year after graduation

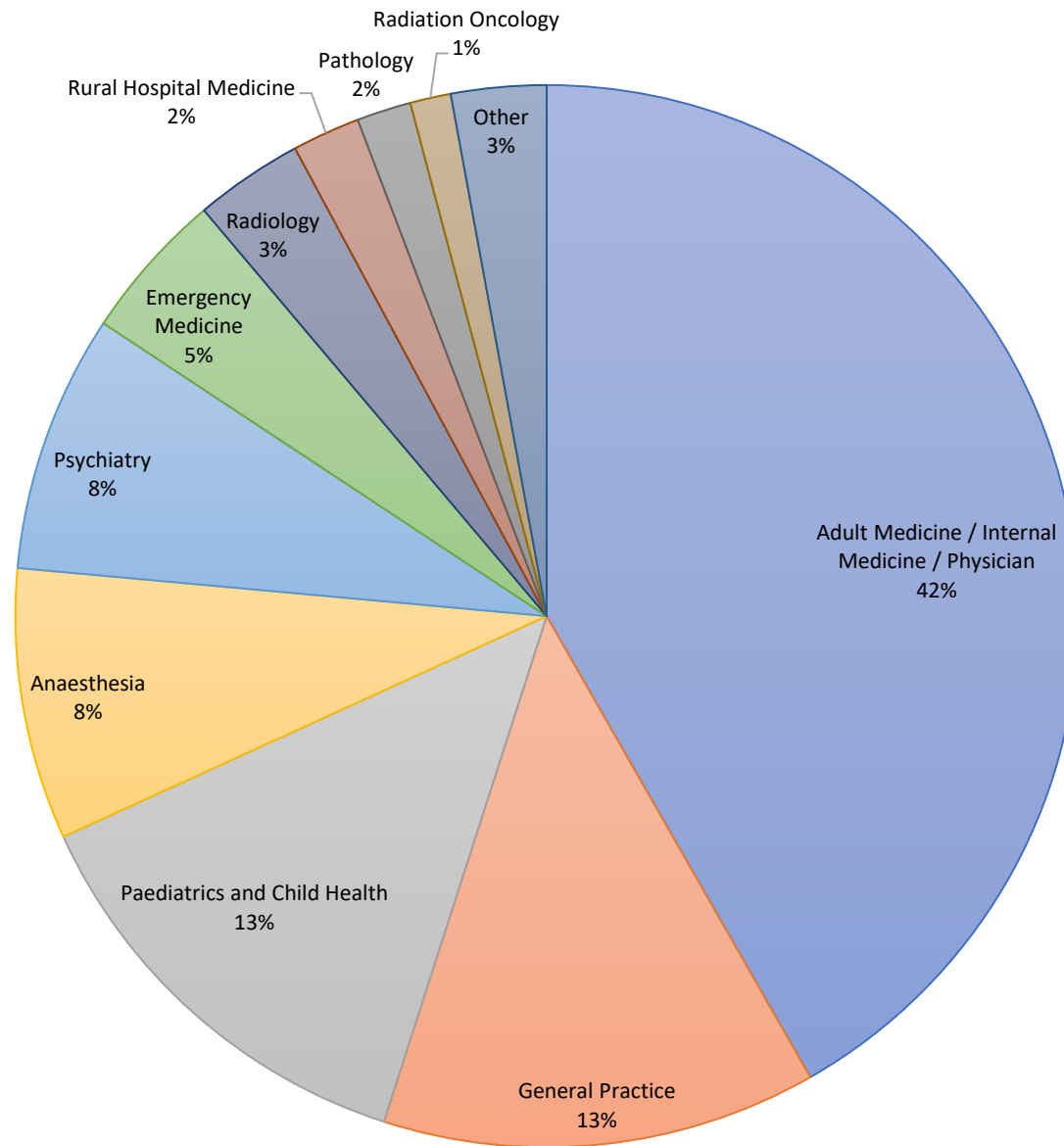
College training programme	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
Adult Medicine / Internal Medicine / Physician	-	-	39	39.4%	42	50.0%	48	48.5%	39	39.4%	42	45.2%	36	41.4%	27	33.3%	33	39.3%	306	42.1%
General Practice	-	-	15	15.2%	15	17.9%	15	15.2%	18	18.2%	15	16.1%	9	10.3%	9	11.1%	12	14.3%	108	14.9%
Paediatrics and Child Health	-	-	15	15.2%	6	7.1%	15	15.2%	12	12.1%	12	12.9%	15	17.2%	12	14.8%	6	7.1%	93	12.8%
Psychiatry	-	-	6	6.1%	3	3.6%	6	6.1%	6	6.1%	9	9.7%	6	6.9%	12	14.8%	12	14.3%	60	8.3%
Anaesthesia	-	-	6	6.1%	9	10.7%	6	6.1%	6	6.1%	6	6.5%	6	6.9%	6	7.4%	9	10.7%	54	7.4%
Emergency Medicine	-	-	6	6.1%	3	3.6%	9	9.1%	3	3.0%	3	3.2%	..C	..C	6	7.4%	-	-	30	4.1%
Radiology	-	-	3	3.0%	-	-	-	-	3	3.0%	3	3.2%	3	3.4%	6	7.4%	6	7.1%	24	3.3%
Rural Hospital Medicine	-	-	3	3.0%	3	3.6%	..C	..C	3	3.0%	..C	..C	3	3.4%	3	3.7%	..C	..C	15	2.1%
Pathology	-	-	..C	..C	-	-	..C	..C	3	3.0%	3	3.2%	3	3.4%	..C	..C	-	-	9	1.2%
Obstetrics and Gynaecology	-	-	..C	..C	3	3.6%	-	-	..C	..C	-	-	3	3.4%	-	-	-	-	6	0.8%
Public Health Medicine	-	-	..C	..C	-	-	-	-	3	3.0%	-	-	-	-	-	-	3	3.6%	6	0.8%
Dual Vocational Training Programme	-	-	3	3.0%	-	-	-	-	-	-	-	-	-	-	..C	..C	-	-	3	0.4%
Intensive Care Medicine	-	-	-	-	-	-	-	-	3	3.0%	..C	..C	-	-	..C	..C	-	-	3	0.4%
Surgery	-	-	3	3.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.4%
Urgent Care [‡]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	3	3.6%	3	0.4%
Occupational and Environmental Medicine	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	-	-	-	-	..C	..C
Radiation Oncology	-	-	-	-	..C	..C	-	-	..C	..C	-	-	..C	..C	-	-	-	-	..C	..C
Other	-	-	-	-	-	-	-	-	..C	..C	..C	..C	3	3.4%	-	-	-	-	3	0.4%

Base: respondents enrolled in a college training programme in their third year after graduation. Question response rate: 99.0%.

[†] Question was not asked in 2014.

[‡] Urgent Care option added in 2021.

Figure 3. College training programme enrolments during the third year after graduation. Based on the total column of **Table 27**.



[Intentions for year four after graduation \(PGY4\)](#)

Table 28. Main intentions for year four after graduation (ranked by Total column)

Intention for year four	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020			2021		2022		
	n	%	n	%	n	%	n	%	n	%	n	%	n	%		n	%	n	%	
Continue a vocational training programme	30	35.7%	78	36.6%	84	37.8%	84	44.4%	84	35.4%	78	32.1%	72	34.8%	63	30.0%	63	31.3%	636	35.2%
Enter a vocational training programme	27	32.1%	54	25.4%	63	28.4%	51	27.0%	63	26.6%	63	25.9%	60	29.0%	57	27.1%	51	25.4%	489	27.1%
Undertake an additional year as a medical officer, not in a vocational training programme	15	17.9%	36	16.9%	45	20.3%	24	12.7%	63	26.6%	60	24.7%	57	27.5%	54	25.7%	48	23.9%	402	22.3%
Go on a vacation / leave / taking a break	6	7.1%	12	5.6%	6	2.7%	9	4.8%	6	2.5%	9	3.7%	3	1.4%	12	5.7%	15	7.5%	78	4.3%
Work outside New Zealand in a clinical role	3	3.6%	6	2.8%	6	2.7%	6	3.2%	9	3.8%	9	3.7%	3	1.4%	6	2.9%	3	1.5%	51	2.8%
Primary carer leave (maternity / partner's leave) / home duties / childcare	..C	..C	9	4.2%	3	1.4%	3	1.6%	3	1.3%	6	2.5%	3	1.4%	3	1.4%	6	3.0%	36	2.0%
Do non-clinical / non-medical work	-	-	6	2.8%	3	1.4%	3	1.6%	3	1.3%	6	2.5%	3	1.4%	3	1.4%	3	1.5%	30	1.7%
Undertake research	3	3.6%	6	2.8%	3	1.4%	3	1.6%	..C	..C	3	1.2%	3	1.4%	6	2.9%	3	1.5%	30	1.7%
Enrol as a student in another course	-	-	..C	..C	3	1.4%	3	1.6%	3	1.3%	3	1.2%	3	1.4%	..C	..C	3	1.5%	18	1.0%
Leave medicine as a career	..C	..C	-	-	-	-	-	-	..C	..C	..C	..C	-	-	-	-	3	1.5%	3	0.2%
Planning to return to do internship	-	-	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C
Other	..C	..C	6	2.8%	6	2.7%	3	1.6%	3	1.3%	6	2.5%	..C	..C	6	2.9%	3	1.5%	33	1.8%

Base: respondents who have not left the medical profession. Question response rate: 97.1%.

[†] University of Otago data only in 2014.

Table 29. Medical specialty of those intending to *continue* a vocational training programme in the fourth year after graduation (ranked by Total column)

Medical specialty of vocational training programme	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	12	40.0%	24	33.3%	36	42.9%	36	41.4%	30	37.0%	27	37.5%	27	39.1%	18	27.3%	18	30.0%	228	36.7%
General Practice	3	10.0%	9	12.5%	12	14.3%	15	17.2%	18	22.2%	12	16.7%	12	17.4%	9	13.6%	9	15.0%	99	15.9%
Paediatrics and Child Health	3	10.0%	9	12.5%	6	7.1%	12	13.8%	9	11.1%	9	12.5%	12	17.4%	6	9.1%	6	10.0%	72	11.6%
Anaesthesia	3	10.0%	6	8.3%	9	10.7%	6	6.9%	9	11.1%	3	4.2%	6	8.7%	9	13.6%	9	15.0%	60	9.7%
Psychiatry	..C	..C	6	8.3%	3	3.6%	6	6.9%	3	3.7%	9	12.5%	6	8.7%	6	9.1%	9	15.0%	48	7.7%
Radiology	..C	..C	3	4.2%	-	-	-	-	3	3.7%	6	8.3%	3	4.3%	6	9.1%	6	10.0%	27	4.3%
Emergency Medicine	3	10.0%	3	4.2%	6	7.1%	6	6.9%	3	3.7%	..C	..C	..C	..C	3	4.5%	-	-	24	3.9%
Pathology	-	-	3	4.2%	3	3.6%	3	3.4%	-	-	3	4.2%	3	4.3%	3	4.5%	-	-	18	2.9%
Rural Hospital Medicine	..C	..C	3	4.2%	3	3.6%	..C	..C	3	3.7%	3	4.2%	..C	..C	..C	..C	3	5.0%	15	2.4%
Obstetrics and Gynaecology	3	10.0%	3	4.2%	3	3.6%	3	3.4%	..C	..C	-	-	-	-	-	-	-	-	12	1.9%
Dual Vocational Training Programme	-	-	..C	..C	-	-	..C	..C	-	-	-	-	-	-	3	4.5%	-	-	3	0.5%
Intensive Care Medicine	-	-	-	-	-	-	-	-	..C	..C	..C	..C	-	-	3	4.5%	-	-	3	0.5%
Radiation Oncology	-	-	-	-	3	3.6%	-	-	-	-	-	-	..C	..C	-	-	-	-	3	0.5%
Surgery	-	-	3	4.2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.5%
Ophthalmology	-	-	-	-	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	..C	..C
Public Health Medicine	-	-	..C	..C	-	-	-	-	..C	..C	-	-	-	-	-	-	..C	..C	..C	..C
Urgent Care [‡]	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	..C	..C	..C	..C	..C
Other	3	10.0%	-	-	-	-	..C	..C	3	3.7%	..C	..C	..C	..C	-	-	-	-	6	1.0%

Base: respondents who intend to continue vocational training in year four after graduation. Question response rate: 99.1%.

† University of Otago data only in 2014.

‡ Urgent Care option added in 2021.

Table 30. Medical specialty of those intending to *enter* a vocational training programme in the fourth year after graduation (ranked by Total column)

Medical specialty of vocational training programme	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
General Practice	3	14.3%	27	50.0%	24	44.4%	24	44.4%	27	40.9%	21	29.2%	12	20.0%	18	33.3%	9	20.0%	165	34.4%
Anaesthesia	3	14.3%	6	11.1%	6	11.1%	6	11.1%	6	9.1%	6	8.3%	6	10.0%	6	11.1%	9	20.0%	54	11.2%
Emergency Medicine	3	14.3%	-	-	-	-	3	5.6%	6	9.1%	9	12.5%	12	20.0%	3	5.6%	6	13.3%	42	8.8%
Obstetrics and Gynaecology	3	14.3%	3	5.6%	6	11.1%	3	5.6%	6	9.1%	6	8.3%	3	5.0%	6	11.1%	3	6.7%	39	8.1%
Surgery	3	14.3%	6	11.1%	6	11.1%	6	11.1%	3	4.5%	6	8.3%	..C	..C	..C	..C	3	6.7%	33	6.9%
Adult Medicine / Internal Medicine / Physician	3	14.3%	3	5.6%	3	5.6%	3	5.6%	3	4.5%	3	4.2%	3	5.0%	3	5.6%	..C	..C	24	5.0%
Rural Hospital Medicine	-	-	..C	..C	3	5.6%	3	5.6%	6	9.1%	3	4.2%	3	5.0%	3	5.6%	..C	..C	21	4.4%
Psychiatry	3	14.3%	..C	..C	-	-	3	5.6%	-	-	3	4.2%	-	-	..C	..C	6	13.3%	15	3.1%
Radiology	..C	..C	..C	..C	..C	..C	..C	..C	3	4.5%	-	-	..C	..C	6	11.1%	6	13.3%	15	3.1%
Paediatrics and Child Health	..C	..C	-	-	..C	..C	-	-	3	4.5%	3	4.2%	3	5.0%	-	-	3	6.7%	12	2.5%
Public Health Medicine	..C	..C	3	5.6%	-	-	-	-	..C	..C	-	-	6	10.0%	3	5.6%	..C	..C	12	2.5%
Intensive Care Medicine	..C	..C	-	-	-	-	-	-	-	-	3	4.2%	6	10.0%	..C	..C	..C	..C	9	1.9%
Radiation Oncology	-	-	3	5.6%	..C	..C	-	-	-	-	-	-	3	5.0%	3	5.6%	-	-	9	1.9%
Ophthalmology	..C	..C	-	-	..C	..C	-	-	-	-	..C	..C	3	5.0%	3	5.6%	-	-	6	1.2%
Pathology	..C	..C	..C	..C	3	5.6%	-	-	-	-	3	4.2%	-	-	..C	..C	-	-	6	1.2%
Rehabilitation Medicine	-	-	-	-	-	-	-	-	-	-	3	4.2%	-	-	-	-	-	-	3	0.6%
Sexual Health Medicine	-	-	3	5.6%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.6%
Sport and Exercise Medicine	-	-	-	-	-	-	-	-	-	-	3	4.2%	-	-	..C	..C	-	-	3	0.6%
Dual Vocational Training Programme	-	-	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C
Other	-	-	-	-	3	5.6%	3	5.6%	3	4.5%	-	-	-	-	-	-	..C	..C	9	1.9%

Base: respondents who intend to commence vocational training in year four after graduation. Question response rate: 98.4%.

† University of Otago data only in 2014.

[Intentions for year five after graduation \(PGY5\)](#)

Table 31. Main intentions for year five after graduation (ranked by Total column)

Intention for year five	Survey year										Total									
	2014 [†]		2015		2016		2017		2018			2019		2020		2021		2022		
	n	%	n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%	
Continue a vocational training programme	51	56.7%	114	56.7%	120	54.1%	120	63.5%	132	56.4%	129	51.8%	120	57.1%	108	52.2%	99	51.6%	993	55.4%
Enter a vocational training programme	21	23.3%	51	25.4%	57	25.7%	45	23.8%	57	24.4%	72	28.9%	54	25.7%	51	24.6%	48	25.0%	456	25.4%
Undertake an additional year as a medical officer, not in a vocational training programme	9	10.0%	3	1.5%	15	6.8%	3	1.6%	18	7.7%	15	6.0%	12	5.7%	15	7.2%	18	9.4%	108	6.0%
Go on a vacation / leave / taking a break	6	6.7%	9	4.5%	6	2.7%	3	1.6%	9	3.8%	6	2.4%	3	1.4%	15	7.2%	15	7.8%	72	4.0%
Work outside New Zealand in a clinical role	3	3.3%	6	3.0%	6	2.7%	6	3.2%	6	2.6%	6	2.4%	6	2.9%	6	2.9%	6	3.1%	51	2.8%
Primary carer leave (maternity / partner's leave) / home duties / childcare	..C	..C	3	1.5%	6	2.7%	6	3.2%	..C	..C	6	2.4%	3	1.4%	-	-	..C	..C	24	1.3%
Undertake research	..C	..C	3	1.5%	..C	..C	3	1.6%	6	2.6%	-	-	3	1.4%	6	2.9%	-	-	21	1.2%
Do non-clinical / non-medical work	..C	..C	3	1.5%	6	2.7%	-	-	3	1.3%	3	1.2%	3	1.4%	-	-	..C	..C	18	1.0%
Enrol as a student in another course	-	-	..C	..C	3	1.4%	3	1.6%	-	-	3	1.2%	..C	..C	-	-	3	1.6%	12	0.7%
Leave medicine as a career	..C	..C	3	1.5%	-	-	..C	..C	-	-	3	1.2%	..C	..C	3	1.4%	..C	..C	9	0.5%
Planning to return to do internship	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	..C	..C
Other	-	-	6	3.0%	3	1.4%	..C	..C	3	1.3%	6	2.4%	6	2.9%	3	1.4%	3	1.6%	30	1.7%

Base: respondents who have not left the medical profession. Question response rate: 97.0%.

[†] University of Otago data only in 2014.

Table 32. Medical specialty of those intending to *continue* a vocational training programme in the fifth year after graduation (ranked by Total column)

Medical specialty of vocational training programme	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020				2021		2022	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
General Practice	6	12.5%	33	28.2%	33	27.5%	36	30.0%	42	33.3%	30	24.4%	24	20.0%	24	22.2%	18	20.0%	246	25.3%
Adult Medicine / Internal Medicine / Physician	15	31.2%	27	23.1%	33	27.5%	33	27.5%	18	14.3%	24	19.5%	27	22.5%	12	11.1%	15	16.7%	204	21.0%
Anaesthesia	3	6.2%	9	7.7%	12	10.0%	12	10.0%	12	9.5%	12	9.8%	12	10.0%	12	11.1%	15	16.7%	99	10.2%
Paediatrics and Child Health	9	18.8%	12	10.3%	9	7.5%	12	10.0%	9	7.1%	12	9.8%	12	10.0%	6	5.6%	6	6.7%	87	9.0%
Psychiatry	3	6.2%	6	5.1%	3	2.5%	6	5.0%	3	2.4%	12	9.8%	6	5.0%	12	11.1%	12	13.3%	63	6.5%
Emergency Medicine	6	12.5%	3	2.6%	6	5.0%	6	5.0%	9	7.1%	9	7.3%	12	10.0%	6	5.6%	3	3.3%	60	6.2%
Radiology	..C	..C	6	5.1%	3	2.5%	..C	..C	6	4.8%	6	4.9%	3	2.5%	9	8.3%	12	13.3%	45	4.6%
Obstetrics and Gynaecology	3	6.2%	6	5.1%	9	7.5%	3	2.5%	6	4.8%	..C	..C	3	2.5%	3	2.8%	3	3.3%	36	3.7%
Rural Hospital Medicine	..C	..C	3	2.6%	3	2.5%	3	2.5%	9	7.1%	3	2.4%	6	5.0%	6	5.6%	3	3.3%	36	3.7%
Pathology	..C	..C	3	2.6%	6	5.0%	..C	..C	-	-	3	2.4%	3	2.5%	3	2.8%	-	-	18	1.9%
Public Health Medicine	..C	..C	3	2.6%	-	-	-	-	3	2.4%	-	-	3	2.5%	6	5.6%	3	3.3%	18	1.9%
Surgery	-	-	6	5.1%	3	2.5%	..C	..C	3	2.4%	3	2.4%	..C	..C	3	2.8%	..C	..C	18	1.9%
Ophthalmology	-	-	-	-	..C	..C	3	2.5%	-	-	3	2.4%	3	2.5%	3	2.8%	-	-	12	1.2%
Intensive Care Medicine	3	6.2%	-	-	-	-	-	-	..C	..C	..C	..C	3	2.5%	..C	..C	-	-	6	0.6%
Dual Vocational Training Programme	-	-	-	-	-	-	3	2.5%	-	-	-	-	-	-	..C	..C	-	-	3	0.3%
Radiation Oncology	-	-	..C	..C	..C	..C	-	-	-	-	-	-	3	2.5%	..C	..C	-	-	3	0.3%
Rehabilitation Medicine	-	-	-	-	-	-	-	-	-	-	3	2.4%	-	-	-	-	-	-	3	0.3%
Sport and Exercise Medicine	-	-	-	-	-	-	-	-	-	-	3	2.4%	-	-	..C	..C	-	-	3	0.3%
Urgent Care [‡]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2.8%	..C	..C	3	0.3%
Pain Medicine	-	-	-	-	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	..C	..C
Palliative Medicine	-	-	-	-	-	-	-	-	-	-	..C	..C	-	-	-	-	-	-	..C	..C
Other	..C	..C	-	-	-	-	3	2.5%	6	4.8%	..C	..C	..C	..C	-	-	..C	..C	9	0.9%

Base: respondents who intend to continue vocational training in year five after graduation. Question response rate: 97.6%.

[†] University of Otago data only in 2014.

[‡] Urgent Care option added in 2021.

Table 33. Medical specialty of those intending to *enter* a vocational training programme in the fifth year after graduation (ranked by Total column)

Medical specialty of vocational training programme	Survey year										Total									
	2014 [†]		2015		2016		2017		2018			2019		2020		2021		2022		
	n	%	n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%	
Surgery	9	50.0%	18	40.0%	18	40.0%	12	25.0%	9	17.6%	18	26.1%	15	26.3%	18	40.0%	15	33.3%	132	31.2%
General Practice	..C	..C	12	26.7%	9	20.0%	9	18.8%	15	29.4%	18	26.1%	9	15.8%	9	20.0%	15	33.3%	96	22.7%
Obstetrics and Gynaecology	..C	..C	3	6.7%	6	13.3%	3	6.2%	3	5.9%	9	13.0%	12	21.1%	3	6.7%	..C	..C	39	9.2%
Anaesthesia	3	16.7%	3	6.7%	-	-	3	6.2%	6	11.8%	3	4.3%	6	10.5%	6	13.3%	6	13.3%	36	8.5%
Emergency Medicine	..C	..C	3	6.7%	3	6.7%	3	6.2%	3	5.9%	6	8.7%	..C	..C	..C	..C	3	6.7%	21	5.0%
Radiology	3	16.7%	3	6.7%	..C	..C	3	6.2%	3	5.9%	-	-	-	-	3	6.7%	6	13.3%	21	5.0%
Adult Medicine / Internal Medicine / Physician	-	-	3	6.7%	3	6.7%	3	6.2%	-	-	6	8.7%	3	5.3%	-	-	-	-	18	4.3%
Ophthalmology	..C	..C	-	-	3	6.7%	3	6.2%	3	5.9%	..C	..C	3	5.3%	..C	..C	..C	..C	12	2.8%
Paediatrics and Child Health	-	-	..C	..C	3	6.7%	-	-	3	5.9%	3	4.3%	-	-	3	6.7%	-	-	12	2.8%
Intensive Care Medicine	-	-	-	-	-	-	3	6.2%	3	5.9%	3	4.3%	-	-	..C	..C	..C	..C	9	2.1%
Public Health Medicine	3	16.7%	-	-	-	-	-	-	..C	..C	..C	..C	3	5.3%	3	6.7%	-	-	9	2.1%
Dual Vocational Training Programme	-	-	-	-	..C	..C	-	-	-	-	-	-	3	5.3%	-	-	-	-	3	0.7%
Psychiatry	-	-	-	-	-	-	..C	..C	3	5.9%	-	-	..C	..C	..C	..C	-	-	3	0.7%
Radiation Oncology	-	-	-	-	-	-	3	6.2%	-	-	-	-	..C	..C	-	-	..C	..C	3	0.7%
Rural Hospital Medicine	..C	..C	-	-	..C	..C	3	6.2%	-	-	-	-	-	-	..C	..C	-	-	3	0.7%
Sexual Health Medicine	-	-	-	-	-	-	-	-	-	-	3	4.3%	-	-	-	-	-	-	3	0.7%
Addiction Medicine	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C
Dermatology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	-	-	..C	..C
Occupational and Environmental Medicine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	..C	..C
Oral and Maxillofacial Surgery	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	-	-	-	-	..C	..C
Pathology	-	-	..C	..C	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	..C	..C
Sport and Exercise Medicine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	..C	..C	..C	..C
Other	-	-	-	-	..C	..C	..C	..C	..C	..C	-	-	3	5.3%	..C	..C	-	-	3	0.7%

Base: respondents who intend to commence vocational training in year five after graduation. Question response rate: 94.1%.

† University of Otago data only in 2014.

Table 34. First preference of country of future practice

First preference of country	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
New Zealand	84	96.6%	186	93.9%	195	92.9%	186	100%	231	98.7%	231	98.7%	201	97.1%	198	95.7%	183	95.3%	1695	96.6%
Country other than New Zealand	3	3.4%	12	6.1%	15	7.1%	..C	..C	3	1.3%	3	1.3%	6	2.9%	9	4.3%	9	4.7%	60	3.4%

Base: respondents who have not left the medical profession. Question response rate: 94.6%.

[†] University of Otago data only in 2014.

Table 35. First preference for region of future practice

First preference of region	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		n	%
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%				
Auckland	21	25.0%	48	24.2%	57	27.1%	60	32.8%	54	23.1%	60	25.3%	51	23.9%	69	33.3%	69	37.1%	489	27.9%
Bay of Plenty	6	7.1%	24	12.1%	12	5.7%	18	9.8%	24	10.3%	15	6.3%	18	8.5%	12	5.8%	12	6.5%	141	8.0%
Canterbury	18	21.4%	24	12.1%	30	14.3%	27	14.8%	48	20.5%	39	16.5%	39	18.3%	39	18.8%	27	14.5%	291	16.6%
Gisborne	..C	..C	6	3.0%	3	1.4%	-	-	3	1.3%	3	1.3%	..C	..C	3	1.4%	..C	..C	18	1.0%
Hawke's Bay	3	3.6%	6	3.0%	12	5.7%	9	4.9%	12	5.1%	9	3.8%	6	2.8%	9	4.3%	6	3.2%	72	4.1%
Manawatu-Whanganui	..C	..C	3	1.5%	6	2.9%	6	3.3%	6	2.6%	..C	..C	3	1.4%	6	2.9%	3	1.6%	33	1.9%
Marlborough	-	-	..C	..C	3	1.4%	..C	..C	..C	..C	-	-	3	1.4%	-	-	..C	..C	6	0.3%
Nelson	..C	..C	9	4.5%	9	4.3%	6	3.3%	9	3.8%	12	5.1%	3	1.4%	9	4.3%	6	3.2%	63	3.6%
Northland	3	3.6%	12	6.1%	6	2.9%	9	4.9%	12	5.1%	18	7.6%	9	4.2%	9	4.3%	9	4.8%	87	5.0%
Otago	9	10.7%	12	6.1%	9	4.3%	6	3.3%	18	7.7%	9	3.8%	12	5.6%	3	1.4%	12	6.5%	90	5.1%
Southland	..C	..C	-	-	3	1.4%	3	1.6%	3	1.3%	6	2.5%	3	1.4%	3	1.4%	..C	..C	21	1.2%
Taranaki	3	3.6%	6	3.0%	..C	..C	6	3.3%	3	1.3%	6	2.5%	3	1.4%	6	2.9%	9	4.8%	42	2.4%
Tasman	-	-	-	-	-	-	-	-	3	1.3%	3	1.3%	3	1.4%	-	-	-	-	9	0.5%
Taupo [‡]	3	3.6%	6	3.0%	6	2.9%	..C	..C	..C	..C	..C	..C	-	-	-	-	..C	..C	81	4.7%
Waikato [‡]	3	3.6%	6	3.0%	6	2.9%	12	6.6%	15	6.4%	9	3.8%	15	7.0%	9	4.3%	6	3.2%		
Wellington Region	15	17.9%	30	15.2%	39	18.6%	21	11.5%	21	9.0%	45	19.0%	36	16.9%	21	10.1%	18	9.7%	246	14.0%
Westland	-	-	-	-	-	-	-	-	..C	..C	-	-	3	1.4%	-	-	..C	..C	3	0.2%
Country other than New Zealand	3	3.6%	12	6.1%	15	7.1%	..C	..C	3	1.3%	3	1.3%	6	2.8%	9	4.3%	9	4.8%	60	3.4%

Base: respondents who have not left the medical profession. Question response rate: 94.6%.

[†] University of Otago data only in 2014.

[‡] Waikato and Taupo regions were a combined option prior to the 2017 survey.

Figure 4. Geographical distributions of population (2018 census), and of first preference of intended future practice location. These values have been corrected for response rates.

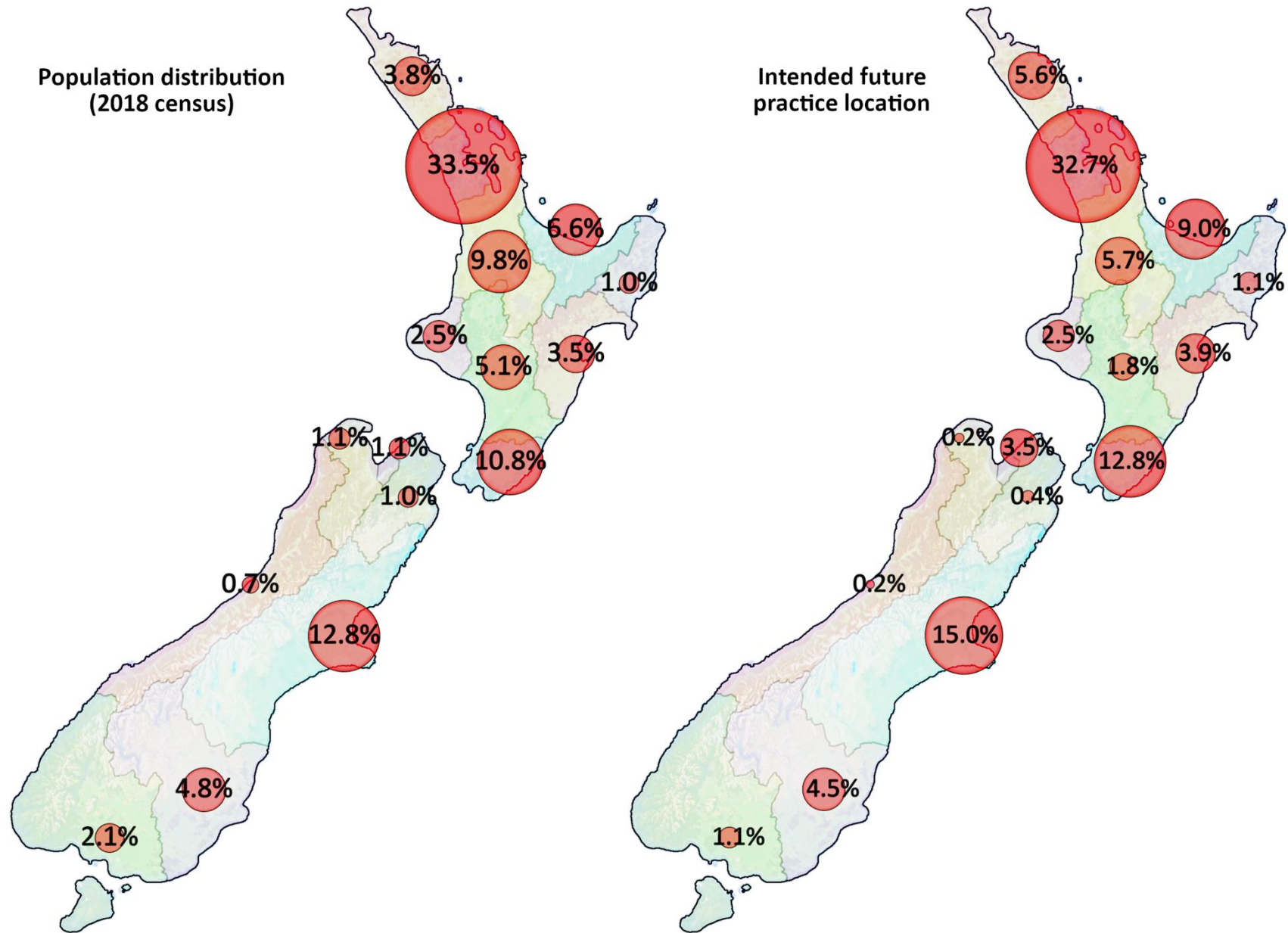


Figure 5. First preference of intended future practice location, and preferred population of geographical location. These values have been corrected for response rates.

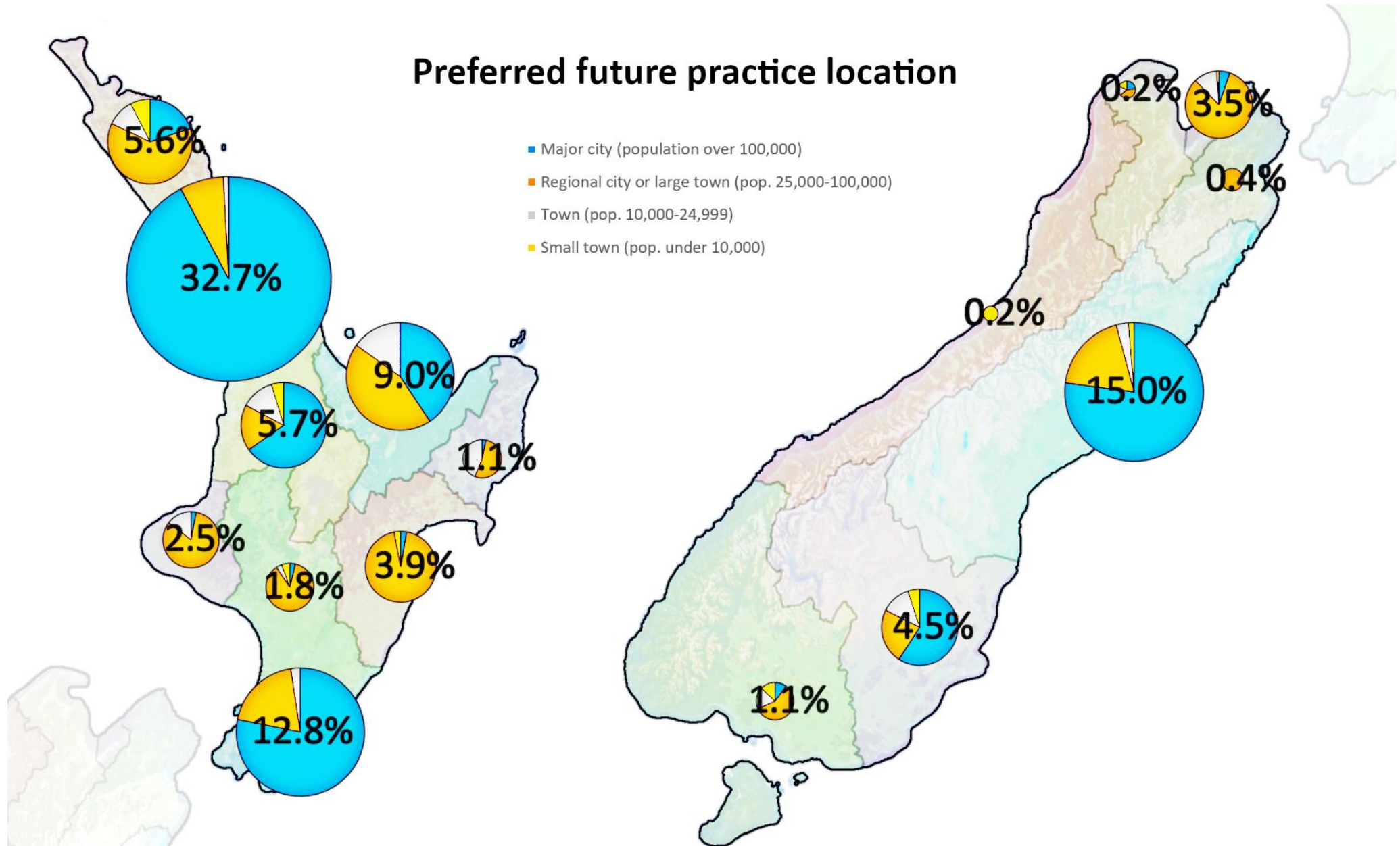


Table 36. Preferred population centre size of future practice

First preference of population centre	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Major city (pop. 100,000 or greater)	51	58.6%	123	62.1%	135	63.4%	120	62.5%	141	58.0%	150	62.5%	132	64.7%	129	62.3%	120	64.5%	1101	62.2%
Regional centre or large town (pop. 25,000 – 100,000)	27	31.0%	57	28.8%	60	28.2%	54	28.1%	78	32.1%	66	27.5%	57	27.9%	63	30.4%	57	30.6%	519	29.3%
Town (pop. 10,000 – 24,999)	3	3.4%	12	6.1%	9	4.2%	9	4.7%	15	6.2%	18	7.5%	9	4.4%	9	4.3%	3	1.6%	87	4.9%
Small town (pop. 10,000 or fewer)	-	-	3	1.5%	3	1.4%	3	1.6%	3	1.2%	3	1.2%	6	2.9%	3	1.4%	3	1.6%	27	1.5%
Not applicable, not intending to work in New Zealand	6	6.9%	3	1.5%	6	2.8%	6	3.1%	6	2.5%	3	1.2%	..C	..C	3	1.4%	3	1.6%	36	2.0%

Base: respondents who have not left the medical profession. Question response rate: 95.5%.

[Future medical specialty](#)

Table 37. Decided on future medical specialty

Decided on future medical specialty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Yes	75	80.6%	165	82.1%	183	84.7%	168	88.9%	201	84.8%	201	82.7%	177	83.1%	171	82.6%	165	87.3%	1506	84.2%
No	18	19.4%	36	17.9%	33	15.3%	21	11.1%	36	15.2%	42	17.3%	36	16.9%	36	17.4%	24	12.7%	282	15.8%

Base: respondents who have not left the medical profession. Question response rate: 96.5%.

[†] University of Otago data only in 2014.

Table 38. First preference of medical specialty irrespective of whether a future medical specialty had been decided (ranked by Total column).
Only the top ten ranks are given due to small numbers thereafter.

Medical specialty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank
General Practice	18.9%	1	30.3%	1	24.8%	1	26.1%	1	28.1%	1	21.8%	1	16.2%	1	18.8%	1	17.8%	1	22.8%	1
Surgery	11.1%	3	12.4%	3	16.8%	3	11.2%	3	12.3%	3	14.3%	2	12.4%	3	13.9%	2	15.1%	2	13.5%	2=
Adult Medicine / Internal Medicine / Physician	15.6%	2	12.9%	2	19.2%	2	17.0%	2	12.8%	2	12.6%	3	15.2%	2	9.6%	3	7.0%	6	13.5%	2=
Anaesthesia	8.9%	4	9.0%	4	7.0%	4=	8.0%	4=	8.5%	4	8.0%	4	7.1%	7	8.7%	4	13.0%	3	8.6%	4
Paediatrics and Child Health	7.8%	5=	8.0%	5	5.1%	6	8.0%	4=	5.1%	6	6.7%	5=	7.6%	5=	6.2%	5=	6.5%	7	6.7%	5
Obstetrics and Gynaecology	6.7%	7	4.5%	6	7.0%	4=	4.3%	7=	5.5%	5	4.6%	8	7.6%	5=	4.3%	9=	5.4%	8	5.5%	6
Emergency Medicine	7.8%	5=	3.5%	7=	2.3%	9=	4.3%	7=	4.3%	8	6.7%	5=	8.1%	4	4.8%	8	4.3%	9	5.0%	7
Psychiatry	5.6%	8	3.5%	7=	2.8%	8	4.8%	6	2.6%	10=	6.3%	7	3.8%	8=	6.2%	5=	8.1%	5	4.7%	8
Radiology	3.3%	9=	3.5%	7=	1.4%		1.6%		4.7%	7	2.1%		1.9%		5.8%	7	9.7%	4	3.7%	9
Rural Hospital Medicine	2.2%		1.0%		2.3%	9=	3.7%	9	3.4%	9	2.9%	9	3.3%	10	4.3%	9=	1.6%		2.8%	10
Public Health Medicine	3.3%	9=	3.0%	10	0.5%		0.5%		2.6%	10=	1.3%		3.8%	8=	3.8%		2.2%	10	2.3%	
Ophthalmology	2.2%		0.5%		0.9%		2.1%	10	2.1%		2.5%	10=	1.9%		1.9%		1.1%		1.7%	
Pathology	1.1%		2.0%		3.3%	7	1.1%		0.4%		1.7%		1.4%		1.9%		0.5%		1.5%	
Intensive Care Medicine	-		-		1.4%		1.6%		2.1%		1.3%		2.4%		1.9%		1.6%		1.5%	
Dual Vocational Training Programme	2.2%		1.5%		1.4%		1.1%		0.9%		0.8%		0.5%		0.5%		1.1%		1.0%	
Palliative Medicine	1.1%		0.5%		-		-		0.9%		2.5%	10=	1.4%		-		0.5%		0.8%	
Dermatology	1.1%		1.5%		-		0.5%		0.4%		0.8%		1.0%		1.0%		0.5%		0.7%	
Radiation Oncology	-		0.5%		0.9%		0.5%		-		-		1.9%		1.0%		0.5%		0.6%	
Sport and Exercise Medicine	-		-		0.5%		-		0.4%		0.8%		-		0.5%		0.5%		0.3%	
Sexual Health Medicine	-		0.5%		0.5%		0.5%		-		0.4%		-		1.0%		-		0.3%	

[†] University of Otago data only in 2014.

Medical specialty	Survey year														Total					
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		% rank	% rank
	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank				
Medical Administration (e.g. managing a hospital)	-		0.5%		-		0.5%		-		0.4%		-		-		0.5%		0.2%	
Urgent Care [‡]	-		-		-		-		-		-		-		0.5%		0.5%		0.1%	
Oral and Maxillofacial Surgery	-		-		-		-		-		-		0.5%		0.5%		-		0.1%	
Addiction Medicine	-		-		-		0.5%		-		-		-		0.5%		-		0.1%	
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	-		0.5%		-		-		0.4%		-		-		-		-		0.1%	
Occupational and Environmental Medicine	-		-		-		-		-		-		0.5%		-		-		0.1%	
Rehabilitation Medicine	-		-		-		-		-		0.4%		-		-		-		0.1%	
Other	1.1%		0.5%		1.4%		2.1%		2.6%		0.8%		1.4%		2.4%		1.6%		1.7%	

Base: respondents who have not left the medical profession. Question response rate: 95.4%.

[†] University of Otago data only in 2014.

[‡] Urgent Care option added in 2021.

Figure 6. First preference of medical specialty irrespective of whether a future medical specialty had been decided. Based on the total column of **Table 38.**

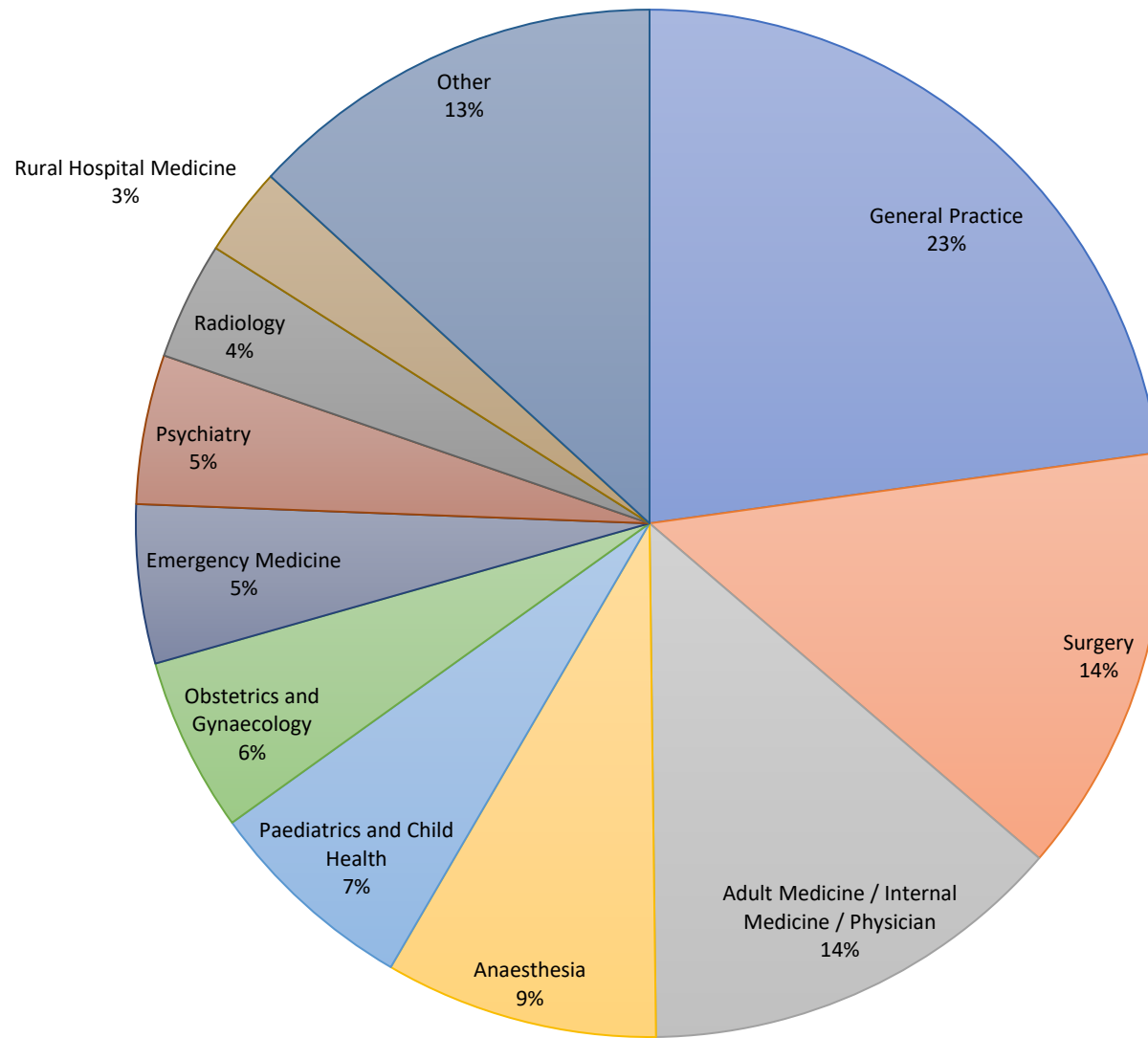


Table 39. First preference of medical specialty for those who **have decided** on a future medical specialty (ranked by Total column).
Only the top ten ranks given due to small numbers thereafter.

Medical specialty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank
General Practice	13.3%	2=	31.5%	1	26.0%	1	28.3%	1	30.2%	1	22.0%	1	18.6%	1	19.7%	1	18.8%	1	23.9%	1
Surgery	13.3%	2=	13.9%	2	17.1%	3	11.4%	3	13.1%	2	15.0%	2	13.0%	2=	14.5%	2	16.4%	2	14.3%	2
Adult Medicine / Internal Medicine / Physician	16.0%	1	12.7%	3	18.8%	2	15.1%	2	9.5%	3=	12.5%	3	13.0%	2=	9.2%	3	4.8%	8	12.2%	3
Anaesthesia	9.3%	4=	8.5%	5	6.6%	5	7.8%	4	9.5%	3=	8.0%	4	7.3%	6	8.7%	4	13.3%	3	8.7%	4
Paediatrics and Child Health	9.3%	4=	9.1%	4	5.5%	6	7.2%	5	6.0%	5	6.5%	6	7.9%	4=	5.2%	7=	6.7%	6	6.9%	5
Obstetrics and Gynaecology	6.7%	7=	4.8%	6	8.3%	4	4.8%	7=	5.5%	6	5.0%	8	7.9%	4=	5.2%	7=	6.1%	7	6.0%	6
Psychiatry	6.7%	7=	3.0%	8=	2.2%	9	5.4%	6	2.5%	10=	7.0%	5	4.5%	8	6.9%	5=	9.1%	5	5.1%	7
Emergency Medicine	9.3%	4=	3.0%	8=	2.8%	8	4.8%	7=	4.5%	8	6.0%	7	6.8%	7	5.2%	7=	3.6%	9	4.9%	8
Radiology	4.0%	9	3.6%	7	1.7%	10=	1.2%		5.0%	7	2.5%	10=	1.7%		6.9%	5=	10.3%	4	4.1%	9
Rural Hospital Medicine	2.7%	10=	1.2%		1.7%	10=	3.6%	9	3.5%	9	2.5%	10=	3.4%	9=	3.5%	10	1.8%		2.7%	10
Public Health Medicine	2.7%	10=	3.0%	8=	0.6%		0.6%		2.5%	10=	1.0%		3.4%	9=	2.3%		2.4%	10	2.0%	
Ophthalmology	2.7%	10=	0.6%		1.1%		2.4%	10	2.5%	10=	3.0%	9	2.3%		2.3%		1.2%		2.0%	
Pathology	1.3%		1.8%		3.9%	7	1.2%		-		2.0%		1.7%		2.3%		0.6%		1.7%	
Intensive Care Medicine	-		-		0.6%		1.2%		2.0%		1.0%		1.7%		1.7%		0.6%		1.1%	
Dual Vocational Training Programme	1.3%		0.6%		1.1%		0.6%		0.5%		0.5%		-		0.6%		1.2%		0.7%	
Radiation Oncology	-		0.6%		1.1%		-		-		-		2.3%		1.2%		0.6%		0.7%	
Dermatology	-		1.2%		-		0.6%		-		0.5%		1.1%		0.6%		-		0.5%	
Palliative Medicine	-		-		-		-		0.5%		2.0%		0.6%		-		-		0.4%	
Sport and Exercise Medicine	-		-		-		-		0.5%		1.0%		-		0.6%		-		0.3%	

† University of Otago data only in 2014.

Medical specialty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank	%	rank
Sexual Health Medicine	-		-		0.6%		0.6%		-		-		-		0.6%		-		0.2%	
Urgent Care [‡]	-		-		-		-		-		-		-		0.6%		0.6%		0.1%	
Medical Administration (e.g. managing a hospital)	-		-		-		-		-		0.5%		-		-		0.6%		0.1%	
Oral and Maxillofacial Surgery	-		-		-		-		-		-		0.6%		0.6%		-		0.1%	
Occupational and Environmental Medicine	-		-		-		-		-		-		0.6%		-		-		0.1%	
Rehabilitation Medicine	-		-		-		-		-		0.5%		-		-		-		0.1%	
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	-		-		-		-		0.5%		-		-		-		-		0.1%	
Addiction Medicine	-		-		-		0.6%		-		-		-		-		-		0.1%	
Other	1.3%		0.6%		0.6%		2.4%		1.5%		1.0%		1.7%		1.7%		1.2%		1.3%	

Base: respondents who have decided on their chosen medical specialty. Question response rate: 99.3%.

[†] University of Otago data only in 2014.

[‡] Urgent Care option added in 2021.

Table 40. Preferred sub-specialty of those who **have decided** on a future medical specialty.

	Total (all years) †	
	n	%
Sub-specialty preferences of those decided on an Adult Medicine / Internal Medicine / Physician specialty		
Cardiology	33	20.0%
Clinical Genetics	..C	..C
Clinical Pharmacology	3	1.8%
Endocrinology	12	7.3%
Gastroenterology and Hepatology	24	14.5%
General Medicine	21	12.7%
Geriatric Medicine	9	5.5%
Haematology	6	3.6%
Infectious Diseases	12	7.3%
Medical Oncology	15	9.1%
Nephrology	6	3.6%
Neurology	12	7.3%
Respiratory and Sleep Medicine	6	3.6%
Rheumatology	3	1.8%
Other	3	1.8%
Sub-specialty preferences of those decided on an Obstetrics and Gynaecology specialty		
Gynaecological Oncology	12	16.0%
Maternal-Fetal Medicine	30	40.0%
Obstetrics and Gynaecological Ultrasound	15	20.0%
Reproductive Endocrinology and Infertility	12	16.0%
Urogynaecology	3	4.0%
Other	3	4.0%
Sub-specialty preferences of those decided on a Paediatric and Child Health specialty		
Community Child Health	6	6.7%
General Paediatrics	60	66.7%
Neonatal and Perinatal Medicine	9	10.0%
Paediatric Cardiology	3	3.3%
Paediatric Emergency Medicine	..C	..C
Paediatric Endocrinology	..C	..C
Paediatric Haematology	..C	..C
Paediatric Infectious Diseases	3	3.3%
Paediatric Intensive Care Medicine	..C	..C
Paediatric Medical Oncology	6	6.7%
Paediatric Neurology	..C	..C
Paediatric Palliative Medicine	..C	..C
Paediatric Rehabilitation Medicine	3	3.3%
Sub-specialty preferences of those decided on a Pathology specialty		

† University of Otago data only in 2014.

	Total (all years) †	
	n	%
Anatomical Pathology (including cytopathology)	18	75.0%
Chemical Pathology	..C	..C
Forensic Pathology	3	12.5%
Haematology	..C	..C
Microbiology	3	12.5%

Sub-specialty preferences of those decided on a Radiology specialty

Diagnostic Radiology	48	88.9%
Other	6	11.1%

Sub-specialty preferences of those decided on a Surgery specialty

Cardiothoracic Surgery	3	1.5%
General Surgery	66	32.4%
Neurosurgery	3	1.5%
Orthopaedic Surgery	60	29.4%
Otolaryngology - Head and Neck Surgery	27	13.2%
Paediatric Surgery	9	4.4%
Plastic Surgery	15	7.4%
Urology	18	8.8%
Vascular Surgery	3	1.5%

Base: respondents who have decided on a future medical specialty in the fields of internal medicine, obstetrics and gynaecology, paediatric and child health, pathology, radiology or surgery. Question response rate: 92.0%.

† University of Otago data only in 2014.

Table 41. First, second, and third preferences of specialty for those who have not decided on a future medical specialty (in order of first preference)

Medical specialty	Total (all years) †		
	1 st pref. %	2 nd pref. %	3 rd pref. %
Adult Medicine / Internal Medicine / Physician	20.7%	14.1%	6.8%
General Practice	17.2%	17.6%	21.9%
Surgery	9.2%	3.5%	5.5%
Anaesthesia	8.0%	4.7%	6.8%
Emergency Medicine	5.7%	9.4%	11.0%
Paediatrics and Child Health	5.7%	7.1%	5.5%
Rural Hospital Medicine	4.6%	3.5%	2.7%
Intensive Care Medicine	3.4%	5.9%	4.1%
Palliative Medicine	3.4%	4.7%	5.5%
Public Health Medicine	3.4%	4.7%	5.5%
Dual Vocational Training Programme	3.4%	1.2%	2.7%
Radiology	2.3%	3.5%	4.1%
Obstetrics and Gynaecology	2.3%	3.5%	2.7%
Psychiatry	2.3%	3.5%	1.4%
Dermatology	2.3%	-	1.4%
Medical Administration (e.g. managing a hospital)	1.1%	2.4%	1.4%
Sport and Exercise Medicine	1.1%	1.2%	2.7%
Sexual Health Medicine	1.1%	1.2%	1.4%
Non-Specialist Hospital Practice (e.g. career as a medical officer in a hospital)	..C	2.4%	1.4%
Radiation Oncology	..C	1.2%	..C
Pathology	..C	..C	..C
Addiction Medicine	..C	..C	-
Occupational and Environmental Medicine	-	1.2%	1.4%
Rehabilitation Medicine	-	1.2%	..C
Ophthalmology	-	..C	..C
Urgent Care‡	-	..C	..C
Other	2.3%	2.4%	4.1%

Base: respondents who have not decided on their chosen medical specialty. Question response rate: 96.1%.

† University of Otago data only in 2014.

‡ Urgent Care option added in 2021.

Table 42. Interest in medical teaching during medical career

Interest in teaching	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Yes	63	72.4%	153	76.1%	156	73.2%	153	79.7%	174	73.4%	168	69.1%	141	66.2%	150	71.4%	126	66.7%	1284	71.9%
No	9	10.3%	15	7.5%	9	4.2%	9	4.7%	15	6.3%	18	7.4%	12	5.6%	18	8.6%	18	9.5%	123	6.9%
Undecided	15	17.2%	33	16.4%	48	22.5%	30	15.6%	48	20.3%	57	23.5%	60	28.2%	42	20.0%	45	23.8%	378	21.2%

Base: respondents who have not left the medical profession. Question response rate: 96.4%.

Table 43. Interest in research during medical career

Interest in research	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Yes	33	35.5%	102	51.5%	105	48.6%	99	52.4%	108	45.6%	102	42.0%	102	47.9%	105	50.7%	87	46.0%	843	47.2%
No	36	38.7%	45	22.7%	48	22.2%	45	23.8%	60	25.3%	60	24.7%	51	23.9%	48	23.2%	60	31.7%	453	25.4%
Undecided	24	25.8%	51	25.8%	63	29.2%	45	23.8%	69	29.1%	81	33.3%	60	28.2%	54	26.1%	42	22.2%	489	27.4%

Base: respondents who have not left the medical profession. Question response rate: 96.5%.

Table 44. Certainty of practising in most preferred medical specialty

Certainty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Absolutely certain	33	35.5%	63	31.3%	60	27.8%	57	29.2%	84	35.4%	60	25.0%	60	29.0%	63	30.0%	69	36.5%	549	30.7%
Moderately certain	39	41.9%	102	50.7%	117	54.2%	111	56.9%	123	51.9%	135	56.2%	114	55.1%	108	51.4%	90	47.6%	939	52.5%
Not at all certain	21	22.6%	36	17.9%	39	18.1%	27	13.8%	30	12.7%	45	18.8%	33	15.9%	39	18.6%	30	15.9%	300	16.8%

Base: respondents who have not left the medical profession. Question response rate: 96.5%.

[†] University of Otago data only in 2014.

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 type of medical practice. Each factor was then ranked by the percentage of those responding with a '4' or '5' to that factor (% Sig.).

Table 45. Factors influencing choice of specialty (ranked by Total column)

Factor influencing choice of specialty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank
Atmosphere / work culture typical of the discipline	72.2%	2	81.2%	1	81.1%	1	81.2%	1	81.2%	1	82.2%	1	82.5%	1	78.0%	1	88.8%	1	81.4%	1
Influence of training experiences as a doctor (e.g., mentors / consultants)	67.8%	4	73.3%	3	74.7%	3	75.0%	4	74.1%	4	74.7%	2=	81.5%	2	76.6%	2	78.7%	3	75.6%	2
Interest in helping people	63.3%	6	72.3%	4	76.5%	2	79.2%	2	78.7%	2	70.1%	6	76.8%	3	72.7%	4	84.6%	2	75.5%	3
Work experience since graduation	75.6%	1	68.3%	6=	73.3%	4	77.6%	3	75.3%	3	74.7%	2=	75.4%	4	72.2%	5	77.1%	5	74.3%	4
Self-appraisal of own skills / aptitudes	64.4%	5	74.8%	2	70.0%	6	67.7%	6	70.7%	5	71.4%	4=	73.0%	6	74.2%	3	72.3%	6	71.4%	5
Intellectual content of the specialty	71.1%	3	68.3%	6=	71.9%	5	74.5%	5	64.0%	7	71.4%	4=	73.9%	5	67.0%	8	78.2%	4	70.9%	6
Perceived opportunity to work flexible hours	61.1%	7	70.8%	5	60.8%	8	62.0%	7=	66.5%	6	61.4%	7	57.3%	7	69.4%	7	71.3%	7	64.6%	7
Perceived amount of working hours	60.0%	8	62.4%	8	55.8%	10	58.3%	9	61.1%	8	59.3%	8	56.4%	8	70.3%	6	64.4%	9	60.9%	8
Type of patients typical of the discipline	57.8%	9	60.4%	9	61.8%	7	62.0%	7=	57.7%	9	54.8%	9	54.0%	10	56.9%	10	65.4%	8	58.9%	9
Opportunity for procedural work	51.1%	10	52.0%	11	59.4%	9	52.1%	11	57.3%	10	53.9%	10	55.0%	9	60.3%	9	61.2%	10=	56.1%	10
Self-appraisal of own domestic circumstances	46.7%	11	53.5%	10	53.0%	11	54.2%	10	47.3%	11	47.3%	12	44.5%	12	50.7%	11	51.6%	13	49.9%	11
Experience of specialty as a medical student	30.0%	15	44.6%	12	46.5%	12	45.3%	12	45.6%	12	48.5%	11	52.6%	11	45.5%	13	52.7%	12	46.7%	12

[†] University of Otago data only in 2014.

Factor influencing choice of specialty	Survey year																			
	2014 [†]		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank
Perceived job security	34.4%	14	41.6%	13	43.8%	13	40.6%	14	43.1%	13	41.5%	13	42.2%	13	47.4%	12	61.2%	10=	44.4%	13
Availability of a vocational training placement	37.8%	12=	35.6%	16	36.4%	15	35.4%	16	39.3%	15	36.9%	15	41.2%	14	44.0%	14	48.4%	14=	39.5%	14
Perceived career advancement prospects	28.9%	16=	36.1%	15	35.5%	16	41.7%	13	39.7%	14	34.4%	16	34.6%	16	42.6%	15	48.4%	14=	38.4%	15
Geographical location of most preferred specialty	37.8%	12=	40.1%	14	38.2%	14	38.0%	15	38.9%	16	33.6%	17	32.7%	17	34.9%	16	45.7%	16	37.6%	16
General medical school experiences (e.g., mentors, discipline placements)	28.9%	16=	30.7%	17	35.0%	17	34.9%	17	34.3%	17	40.7%	14	38.4%	15	33.5%	17	37.8%	17	35.4%	17
Opportunity for research and / or teaching	16.7%	20	25.2%	19	24.0%	19	28.6%	18	33.1%	18	26.1%	18	29.4%	18	29.7%	19	33.0%	18	28.0%	18
Number of years required to complete training	21.1%	18=	27.7%	18	26.3%	18	27.6%	19	23.4%	19	24.1%	19	21.8%	19	30.1%	18	28.7%	19	25.8%	19
Perceived financial prospects	21.1%	18=	21.3%	20	18.9%	20	17.2%	21	19.7%	20	19.5%	20	20.9%	20	21.5%	20	27.1%	20	20.7%	20
Perceived prestige of the discipline	10.0%	21	15.3%	21	12.9%	21	17.7%	20	13.4%	21	13.3%	21	12.3%	21	12.0%	21	14.9%	21	13.7%	21
Influence of parents / relatives	7.8%	23	14.9%	22	7.4%	22	10.9%	22	8.8%	22	9.1%	22	10.0%	22	8.6%	22	11.7%	22	9.9%	22
Financial costs of medial school education and / or debt	8.9%	22	4.0%	23=	6.0%	23	4.2%	23	5.0%	23	6.6%	23	3.8%	23	4.3%	25	9.0%	23	5.5%	23
Risk of litigation and associated insurance costs	4.4%	24	4.0%	23=	5.1%	24	2.1%	24=	3.3%	25	3.3%	25	3.3%	24=	5.7%	23	4.3%	25	3.9%	24
Financial costs of vocational training	3.3%	25	2.0%	25	3.2%	25	2.1%	24=	3.8%	24	5.4%	24	3.3%	24=	5.3%	24	5.3%	24	3.8%	25

Base: respondents who have not left the medical profession. Question response rate: 96.4%.

† University of Otago data only in 2014.

Appendix A: Response rate

Additional analyses were undertaken to assess the whether the respondents were representative of the total cohort.

Response rates by institution

As shown in **Table 46**, the response rates are substantially different between the two universities. As the two universities have different cohort sizes, this further skews the imbalance of responses.

Table 46. Number of respondents by university

Medical School / Programme	Survey year																			
	2014		2015		2016		2017		2018		2019		2020		2021		2022		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
University of Auckland	-	-	44	21.6%	52	23.1%	69	34.8%	76	30.9%	85	32.6%	81	37.9%	98	46.4%	115	54.2%	620	33.3%
University of Otago	91	100%	160	78.4%	173	76.9%	129	65.2%	170	69.1%	176	67.4%	133	62.1%	113	53.6%	97	45.8%	1242	66.7%

Responder/non-responder analysis

Responder/non-responder analysis was undertaken to determine whether responders were representative of the cohort. The gender composition of both groups (responders and non-responders) were slightly different to that of the 2011 to 2019 cohort, with a greater proportion of male non-responders.

Table 47. Respondents/non-respondents by gender

Gender	Responders [†]				Non-responders				Total	
	n	%	n	%	n	%	n	%	n	%
Female	1089	58.6%	1053	51.2%	2142	54.7%				
Gender diverse	..C	..C	-	-	..C	..C				
Male	768	41.4%	1005	48.8%	1773	45.3%				

[†] Numbers differ from those of **Table 2**, which only includes respondents who answered the gender question in this survey, whereas **Table 47** is compiled from medical school data.

Appendix B: Method

In 2014, the University of Otago conducted the first survey of doctors three years after graduation from medical school. From 2015 onwards, both University of Auckland and University of Otago medical graduates have been surveyed. The questionnaire has since remained relatively stable throughout this reporting period, and gathers respondent information about basic demographics, future medical practice, and college training programmes. In 2017, *Waikato* and *Taupo* were separated as regional choices, *Gender diverse* was added as a gender option, and a question on part-time/fulltime work in the PGY2 and PGY3 years was added to the questionnaire. The majority of the questions are quantitative.

The majority of the questions are quantitative. The career choice options that respondents can select were determined when the study was first commenced in Australia. While they have been adapted, there is still not yet complete alignment with vocational scopes of practice as determined by MCNZ. In 2021, the Urgent Care vocational training programme was added, and Indigenous Health was removed, to bring this further into alignment.

Both University of Auckland and University of Otago study data were collected and managed using the Research Electronic Data Capture (REDCap) tool hosted at the University of Otago². 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.

The data from each University for each year were combined to form national data sets.

To protect respondents' anonymity, Statistics New Zealand's guidelines have been adopted³ in the presentation of frequencies for individual years: frequencies less than three have been suppressed, as indicated by "...C" within table cells; other frequencies in these tables have been randomly rounded to a multiple of three.

Unless otherwise indicated, all columns total to 100%.

² 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

³ Statistics New Zealand, 2013 Census confidentiality rules and how they are applied, <https://www.stats.govt.nz/methods/2013-census-confidentiality-rules-and-how-they-are-applied>, published 3/09/2013. Retrieved 30/07/2020