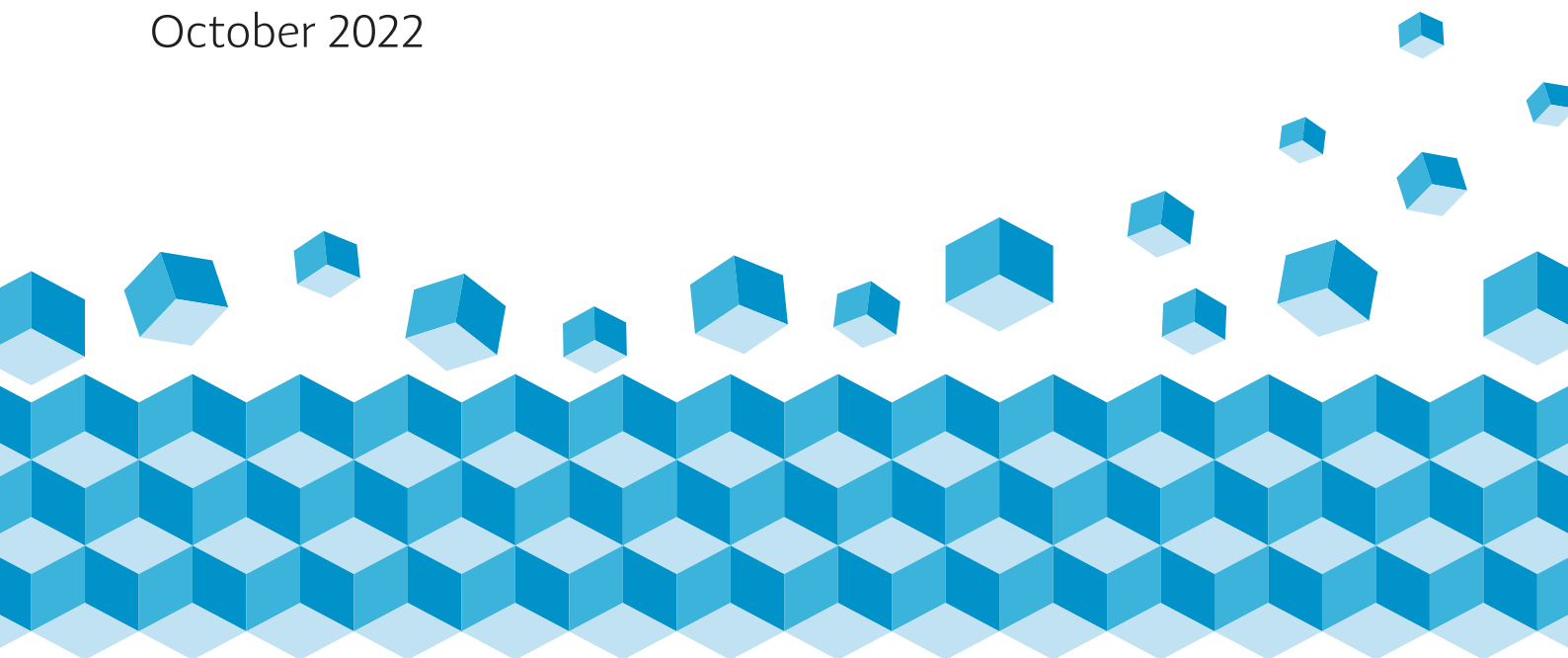


# National report on doctors eight years after graduating from New Zealand medical schools in 2011–2013

October 2022



**Prepared by:**

The New Zealand MSOD Steering Group.

**University of Otago:**

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**University of Auckland:**

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**msod**  
medical schools outcomes database



Otago Medical School  
*Te Kura Hauora o Ōtākou*



**MEDICAL AND  
HEALTH SCIENCES**

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ISSN 2815-9950

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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 New Zealand Medical Schools Outcomes Database (NZMSOD) questionnaires administered between 2019 and 2021 to doctors eight years after they graduated from a New Zealand medical school (between 2011 to 2013).

A total of 519 from a possible 1,080 doctors (48.1%) responded.

Over this time the respondents comprised 61% women and 39% men, which is similar to the complete cohort over this period (56% and 44% respectively).

The median age at the time of the survey across all cohorts is 32.4 years, with little to no variation in each cohort year. Approximately 86% of respondents are in the 30-34 years of age bracket, which matches the complete cohort. The self-reported ethnic identity of respondents shows 8% of respondents identified as Māori and just 1% of respondents identified as Pacific people. These proportions underrepresent the proportion of Māori and Pacific people in the New Zealand population (17% Māori, 8% Pacific people)<sup>1</sup>, and while adequately representing the proportion of Māori in the graduating classes, underrepresent the proportion of Pacific people (7%, Māori, 5% Pacific people). Over 91% of respondents are New Zealand citizens.

Approximately 83% of respondents have a partner or spouse. About 43% have children under the age of 16, and 13% report being responsible for one or more dependants other than children under the age of 16.

Eight years after graduating, 96% of respondents agree or strongly agree that their work and training experiences since graduation have prepared them for work as a doctor, while 81% of respondents agree or strongly agree that their basic medical degree prepared them for their work as a doctor. About 73% of respondents are working as a registrar, nearly 17% are vocationally registered specialists, and 96% are either enrolled in a College training programme, or have already completed one.

Eight years after graduating, 79% of respondents are working full-time, while 21% of respondents typically worked for 60 or more hours per week.

The most frequent main intention for PGY9 is to continue a vocational training programme, while at PGY10 and PGY11 the most frequent main intention is to undertake work in a vocational scope of practice.

About 2% of respondents had indicated that they had left the medical profession, and a further 2% indicated their intent to do so between PGY9 and PGY11.

About 89% of respondents were working in New Zealand eight years after graduation. Over 91% of respondents intend to work in New Zealand in the future: 68% in a major city; 25% in a regional centre or large town, and the remainder in smaller towns.

About 95% of respondents are decided on a future medical specialty. The consistent top preference across all cohorts is General Practice (28%). The next top three choices are Internal medicine (15%), Surgery (11%), and Anaesthesia (9%), although the order of preference is not consistent across each cohort. Over 62% of respondents picked one of these four specialties as their first-choice preference.

About 85% of respondents indicated that they had been involved in, or expressed an interest in, medical teaching, while involvement or interest in medical research was indicated by 61% of respondents.

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<sup>1</sup> Statistics New Zealand. 2018 Census ethnic group summaries.

<https://www.stats.govt.nz/tools/2018-census-ethnic-group-summaries/>, Retrieved 22/08/2022

Eight 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, self-appraisal of own skills / aptitudes, influence of training experiences as a doctor (e.g. consultants/mentors), and work experiences since graduation* in addition to *interest in helping people*, with over 69% of respondents indicating these factors were significant influences to them. By comparison, the least influential factors influencing specialty preference include *financial costs of medical school education and/or debt, financial costs of vocational training, risk of litigation and associated insurance costs, and influence of parents/relatives*, with fewer than 10% of respondents reporting these to be significant influences to them.

About 89% of respondents had also answered an MSOD Exit Questionnaire eight years prior. Of these, 52% had changed their first preference of future region of practice, and 32% had changed their preference to a region they had not considered amongst their top-three picks at graduation.

Around 38% of those who responded to both questionnaires had changed their preference of size of population of their future practice. Of these, 71% changed their preference towards a larger population centre.

Over 56% of those who responded to both questionnaires had changed their first preference of future medical specialty, including 46% of those who had decided upon their future specialty at graduation. Of those who had not decided upon their future specialty at graduation, nearly 38% had chosen a first preference at PGY8 which was not one they considered amongst their top-three picks at graduation.

## 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)<sup>2</sup>. 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 summary and trend data for three years of graduating students from the University of Auckland and the University of Otago, between 2011 and 2013. For more details on response rates and methods, see Appendices A and B.

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<sup>2</sup> 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 Figure 1). 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	%	n	%	n	%	n	%
	<b>n = 114</b>		<b>n = 195</b>		<b>n = 201</b>		<b>n = 510</b>	
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.

Symbol ..C indicates suppression of frequencies less than three

## Response rates

The PGY8 questionnaire was first issued to University of Otago graduates in 2019, before proceeding to be administered nationally from 2020. The number of students graduating from these New Zealand medical school cohorts between 2011 and 2013 was 1,080. This is the total cohort who were eligible to respond to the PGY8 Questionnaires. Every effort was made to contact all those in the cohort.

The number of respondents across the survey time period (2019 to 2021) was 519 giving an overall response rate of 48.1%. 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

Medical School/Programme		Survey year							
		2019†		2020		2021		Total	
		n	%	n	%	n	%	n	%
University of Auckland	Responses	-	-	63	38.9%	81	42.9%	144	41.0%
	Cohort			162		189		351	
University of Otago	Responses	117	49.4%	132	54.3%	126	50.6%	375	51.4%
	Cohort	237		243		249		729	
<b>Total</b>	<b>Responses</b>	<b>117</b>	<b>49.4%</b>	<b>195</b>	<b>48.1%</b>	<b>207</b>	<b>47.3%</b>	<b>519</b>	<b>48.1%</b>
	<b>Cohort</b>	<b>237</b>		<b>405</b>		<b>438</b>		<b>1080</b>	

Further details on response rates are available in Appendix A.

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

## Demographics

**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%

**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							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
30-34 years	99	84.6%	174	90.6%	162	81.8%	435	85.8%
35-39 years	12	10.3%	15	7.8%	24	12.1%	51	10.1%
40 years and over	6	5.1%	3	1.6%	12	6.1%	21	4.1%

Base: all respondents. Question response rate: 97.7%

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

Age in years	Survey year			
	2019†	2020	2021	Total
Median	32.5	32.4	32.4	32.4
Minimum	30.5	30.7	30.8	30.5
Maximum	41.5	48.3	50.6	50.6

Base: all respondents. Question response rate: 97.7%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**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%

**Table 6.** Citizenship of respondents

Citizenship	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
New Zealand citizen	102	87.2%	180	92.3%	192	92.8%	474	91.3%
New Zealand Permanent Resident	9	7.7%	12	6.2%	9	4.3%	30	5.8%
Australian citizen	6	5.1%	..C	..C	-	-	6	1.2%
Visa holder	-	-	-	-	3	1.4%	3	0.6%
Other	..C	..C	3	1.5%	3	1.4%	6	1.2%

Base: all respondents. Question response rate: 100.0%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

## Relationships and dependents

**Table 7.** Relationship status of respondents

Relationship status	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Single	24	20.5%	24	12.5%	36	17.4%	84	16.3%
In a relationship but not living with partner	9	7.7%	6	3.1%	18	8.7%	33	6.4%
Living with partner	24	20.5%	51	26.6%	51	24.6%	126	24.4%
Married	57	48.7%	111	57.8%	102	49.3%	270	52.3%
Separated, divorced, widowed	3	2.6%	..C	..C	..C	..C	3	0.6%

Base: all respondents. Question response rate: 98.3%

**Table 8.** Respondents' number of children and other dependants

Children	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
0	63	55.3%	114	59.4%	117	56.5%	294	57.3%
1	30	26.3%	33	17.2%	51	24.6%	114	22.2%
2 or more	21	18.4%	45	23.4%	39	18.8%	105	20.5%
Other dependants								
0	96	86.5%	159	84.1%	174	89.2%	429	86.7%
1	15	13.5%	24	12.7%	18	9.2%	57	11.5%
2 or more	..C	..C	6	3.2%	3	1.5%	9	1.8%

Base: all respondents. Question response rate: 98.3%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three



Additional tertiary qualifications

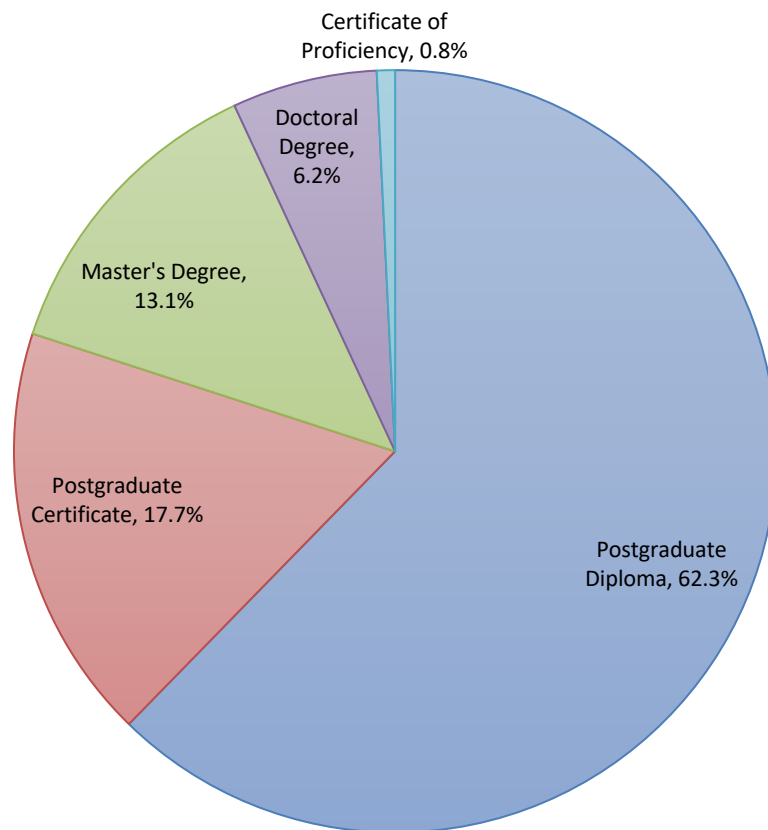
**Table 9.** Respondents undertaking or completing additional tertiary qualifications since medical school

Additional tertiary qualifications	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
No additional qualifications	57	48.7%	78	40.0%	84	40.6%	219	42.2%
One additional qualification	39	33.3%	84	43.1%	87	42.0%	210	40.5%
Two additional qualifications	18	15.4%	27	13.8%	24	11.6%	69	13.3%
Three additional qualifications	3	2.6%	3	1.5%	9	4.3%	15	2.9%
Four or more additional qualifications‡			3	1.5%	3	1.4%	6	1.2%

Base: all respondents. Question response rate: 100.0%

‡Option added in 2020.

**Figure 3.** Additional tertiary qualifications undertaken or completed by respondents while at medical school (n = 390 qualifications, from 291 respondents).



Base: respondents with one or more additional qualifications since graduation. Question response rate: 92.2%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Preparation for being a doctor

**Table 10.** “My basic medical degree prepared me for my work as a doctor.”

Response	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Strongly agree	18	16.2%	21	10.8%	27	13.4%	66	13.0%
Agree	78	70.3%	123	63.1%	144	71.6%	345	68.0%
Neutral	9	8.1%	39	20.0%	18	9.0%	66	13.0%
Disagree or Strongly disagree	6	5.4%	12	6.2%	12	6.0%	30	5.9%

Base: all respondents. Question response rate: 97.7%

**Table 11.** “My medical work and training since graduation has prepared me for my work as a doctor.”

Response	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Strongly agree	66	61.1%	108	56.3%	126	61.8%	300	59.5%
Agree	39	36.1%	75	39.1%	72	35.3%	186	36.9%
Neutral	3	2.8%	9	4.7%	6	2.9%	18	3.6%
Disagree or Strongly disagree	-	-	..C	..C	-	-	..C	..C

Base: all respondents. Question response rate: 97.1%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Situation six years after graduation (the PGY6 year)

**Table 12.** Main location six years after graduation

Main activity during the PGY6 year	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Working in New Zealand	93	88.6%	168	88.9%	183	93.8%	444	90.8%
Working outside New Zealand	12	11.4%	21	11.1%	12	6.2%	45	9.2%

Base: all respondents. Question response rate: 94.2%

**Table 13.** Main activity six years after graduation

Main activity during the PGY6 year	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
A House Officer	3	2.9%	3	1.6%	3	1.5%	9	1.8%
A Registrar	96	94.1%	162	84.4%	177	89.4%	435	88.4%
A vocationally registered specialist	..C	..C	3	1.6%	6	3.0%	9	1.8%
Undertaking other medical work	-	-	6	3.1%	3	1.5%	9	1.8%
Not working medically as a doctor	3	2.9%	18	9.4%	9	4.5%	30	6.1%

Base: all respondents. Question response rate: 94.8%

**Table 14.** Current situation of those not working medically as a doctor in PGY6.  
Percentages total to more than 100% as multiple options could be selected.

Situation of those not working medically as a doctor	Total (all years)	
	n = 30	
	n	%
Doing medically-related work that is non-clinical (e.g., medico-legal, teaching, research, committee work)	6	20.0%
Working in a non-medical role	3	10.0%
Parental leave	9	30.0%
Home duties / childcare / family responsibilities	3	10.0%
Enrolled as a student	3	10.0%
Other extended leave (e.g., sick leave, long service leave, travel, sabbatical)	9	30.0%
Have permanently left the medical profession	..C	..C

Base: respondents not working medically as a doctor in PGY6. Question response rate: 100.0%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 15.** Region of hospital / clinic based at when working as a Registrar / House officer / Vocationally-registered specialist in PGY6

Region of workplace	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Auckland	24	25.0%	48	27.1%	57	31.1%	129	28.3%
Bay of Plenty	3	3.1%	9	5.1%	6	3.3%	18	3.9%
Canterbury	21	21.9%	27	15.3%	24	13.1%	72	15.8%
Gisborne	-	-	6	3.4%	3	1.6%	9	2.0%
Hawke's Bay	3	3.1%	6	3.4%	12	6.6%	21	4.6%
Manawatu-Whanganui	3	3.1%	6	3.4%	6	3.3%	15	3.3%
Nelson	..C	..C	3	1.7%	6	3.3%	9	2.0%
Northland	3	3.1%	6	3.4%	..C	..C	9	2.0%
Otago	6	6.3%	12	6.8%	9	4.9%	27	5.9%
Southland	3	3.1%	..C	..C	..C	..C	3	0.7%
Taranaki	3	3.1%	3	1.7%	6	3.3%	12	2.6%
Tasman	-	-	3	1.7%	-	-	3	0.7%
Taupo	3	3.1%	3	1.7%	-	-	6	1.3%
Waikato	3	3.1%	9	5.1%	3	1.6%	15	3.3%
Wellington Region	12	12.5%	21	11.9%	39	21.3%	72	15.8%
Country other than New Zealand	9	9.4%	15	8.5%	12	6.6%	36	7.9%

Base: respondents working medically as a doctor in PGY6. Question response rate: 93.3%

**Table 16.** Working full-time or part-time in PGY6

Work hours	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Full-time	96	94.1%	144	84.2%	168	90.3%	408	88.9%
Part-time	6	5.9%	27	15.8%	18	9.7%	51	11.1%

Base: respondents working medically as a doctor in PGY6. Question response rate: 93.9%

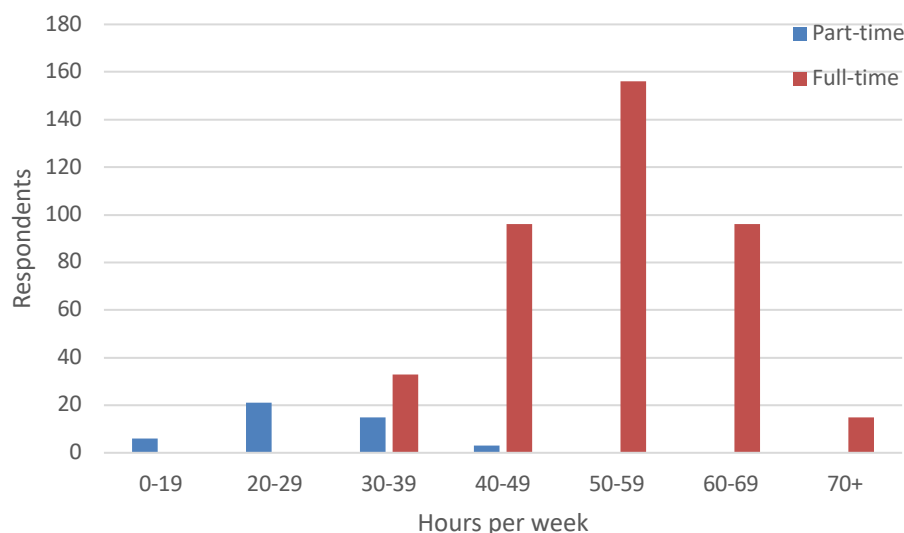
† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 17.** Number of hours worked in a typical week during PGY6

Work hours per week	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
0-19 hours	-	-	3	1.8%	3	1.7%	6	1.3%
20-29 hours	3	2.9%	12	7.3%	6	3.3%	21	4.7%
30-39 hours	9	8.8%	21	12.7%	18	10.0%	48	10.7%
40-49 hours	27	26.5%	33	20.0%	39	21.7%	99	22.1%
50-59 hours	39	38.2%	57	34.5%	63	35.0%	159	35.6%
60-69 hours	21	20.6%	30	18.2%	45	25.0%	96	21.5%
70+ hours	3	2.9%	9	5.5%	6	3.3%	18	4.0%

Base: respondents working medically as a doctor in PGY6. Question response rate: 91.4%

**Figure 4.** Number of hours worked in a typical week during PGY6.

Base: respondents working medically as a doctor in PGY6. Question response rate: 91.4%

**Table 18.** Medical work / placements by geographical location in PGY6. Percentages total more than 100% as respondents can indicate multiple placement locations.

Location	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Major city	69	76.7%	120	75.5%	138	79.3%	327	77.3%
Regional centre	21	23.3%	33	20.8%	42	24.1%	96	22.7%
Small town / community	3	3.3%	18	11.3%	12	6.9%	33	7.8%

Base: respondents working medically as a doctor in New Zealand in PGY6. Question response rate: 99.3%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 19.** Enrolment in a college training programme in PGY6

Enrolled	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes	93	91.2%	150	89.3%	153	82.3%	396	86.8%
No, I have completed a College training programme	3	2.9%	-	-	6	3.2%	9	2.0%
No, I have not enrolled in a College training programme	6	5.9%	18	10.7%	27	14.5%	51	11.2%
No, I have withdrawn from a College training programme	-	-	..C	..C	-	-	..C	..C

Base: respondents working medically as a doctor in PGY6. Question response rate: 93.9%

**Table 20.** College training programme enrolments in PGY6

Location	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	15	15.2%	24	16.3%	36	24.0%	75	18.9%
Anaesthesia	9	9.1%	15	10.2%	15	10.0%	39	9.8%
Dermatology	-	-	3	2.0%	..C	..C	3	0.8%
Dual Vocational Training Program	..C	..C	3	2.0%	-	-	3	0.8%
Emergency Medicine	9	9.1%	3	2.0%	3	2.0%	15	3.8%
General Practice	21	21.2%	54	36.7%	30	20.0%	105	26.5%
Intensive Care Medicine	-	-	-	-	..C	..C	..C	..C
Medical Administration (e.g., managing a hospital)	-	-	-	-	3	2.0%	3	0.8%
Obstetrics and Gynaecology	6	6.1%	9	6.1%	12	8.0%	27	6.8%
Ophthalmology	3	3.0%	..C	..C	..C	..C	3	0.8%
Paediatrics and Child Health	6	6.1%	9	6.1%	15	10.0%	30	7.6%
Pathology	3	3.0%	..C	..C	6	4.0%	9	2.3%
Psychiatry	6	6.1%	9	6.1%	6	4.0%	21	5.3%
Public Health Medicine	..C	..C	3	2.0%	3	2.0%	6	1.5%
Radiation Oncology	-	-	..C	..C	3	2.0%	3	0.8%
Radiology	9	9.1%	3	2.0%	6	4.0%	18	4.5%
Rural and Remote Medicine	3	3.0%	3	2.0%	..C	..C	6	1.5%
Sport and Exercise Medicine	-	-	-	-	..C	..C	..C	..C
Surgery	6	6.1%	6	4.1%	9	6.0%	21	5.3%
Urgent Care‡	-	-	-	-	3	2.0%	3	0.8%
Other	3	3.0%	3	2.0%	-	-	6	1.5%

Base: respondents enrolled in in PGY6. Question response rate: 100.0%

‡Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Situation seven years after graduation (the PGY7 year)

**Table 21.** Main location seven years after graduation

Main activity during the PGY7 year	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Working in New Zealand	99	91.7%	168	87.5%	186	92.5%	453	90.4%
Working outside New Zealand	9	8.3%	24	12.5%	15	7.5%	48	9.6%

Base: all respondents. Question response rate: 96.5%

**Table 22.** Main activity seven years after graduation

Main activity during the PGY7 year	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
A House Officer	3	2.8%	3	1.5%	..C	..C	6	1.2%
A Registrar	96	88.9%	162	81.8%	177	86.8%	435	85.3%
A vocationally registered specialist	3	2.8%	15	7.6%	15	7.4%	33	6.5%
Undertaking other medical work	-	-	9	4.5%	3	1.5%	12	2.4%
Not working medically as a doctor	6	5.6%	9	4.5%	9	4.4%	24	4.7%

Base: all respondents. Question response rate: 98.3%

**Table 23.** Current situation of those not working medically as a doctor in PGY7. Percentages total to more than 100% as multiple options could be selected.

Situation of those not working medically as a doctor	Total (all years)	
	n = 24	
	n	%
Doing medically-related work that is non-clinical (e.g., medico-legal, teaching, research, committee work)	6	25.0%
Working in a non-medical role	6	25.0%
Parental leave	9	37.5%
Home duties / childcare / family responsibilities	3	12.5%
Enrolled as a student	3	12.5%
Other extended leave (e.g., sick leave, long service leave, travel, sabbatical)	3	12.5%
Have permanently left the medical profession	-	-

Base: respondents not working medically as a doctor in PGY7. Question response rate: 100.0%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 24.** Region of hospital / clinic based at when working as a Registrar / House officer / Vocationally-registered specialist in PGY7

Region of workplace	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Auckland	24	23.5%	51	29.3%	60	31.3%	135	28.8%
Bay of Plenty	6	5.9%	9	5.2%	9	4.7%	24	5.1%
Canterbury	21	20.6%	30	17.2%	27	14.1%	78	16.7%
Gisborne	-	-	3	1.7%	3	1.6%	6	1.3%
Hawke's Bay	3	2.9%	3	1.7%	9	4.7%	15	3.2%
Manawatu-Whanganui	..C	..C	6	3.4%	6	3.1%	12	2.6%
Marlborough	..C	..C	..C	..C	-	-	..C	..C
Nelson	3	2.9%	..C	..C	6	3.1%	9	1.9%
Northland	6	5.9%	9	5.2%	3	1.6%	18	3.8%
Otago	9	8.8%	9	5.2%	6	3.1%	24	5.1%
Southland	..C	..C	3	1.7%	3	1.6%	6	1.3%
Taranaki	3	2.9%	..C	..C	3	1.6%	6	1.3%
Tasman	-	-	3	1.7%	-	-	3	0.6%
Taupo	3	2.9%	-	-	-	-	3	0.6%
Waikato	6	5.9%	12	6.9%	9	4.7%	27	5.8%
Wellington Region	12	11.8%	18	10.3%	33	17.2%	63	13.5%
Country other than New Zealand	6	5.9%	18	10.3%	15	7.8%	39	8.3%

Base: respondents working medically as a doctor in PGY7. Question response rate: 94.5%

**Table 25.** Working full-time or part-time in PGY7

Work hours	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Full-time	90	88.2%	144	78.7%	165	85.9%	399	83.6%
Part-time	12	11.8%	39	21.3%	27	14.1%	78	16.4%

Base: respondents working medically as a doctor in PGY7. Question response rate: 96.4%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

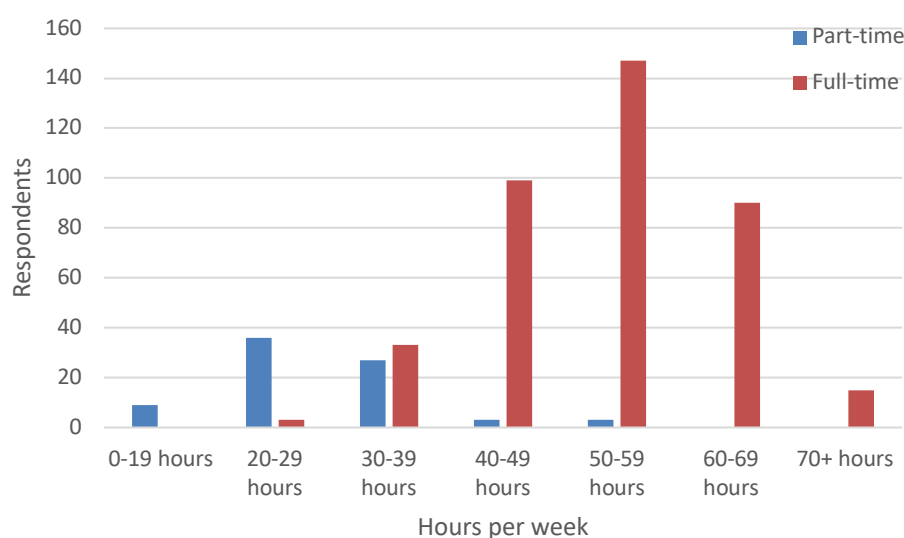


**Table 26.** Number of hours worked in a typical week during PGY7

Work hours per week	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
0-19 hours	3	2.9%	6	3.4%	3	1.6%	12	2.6%
20-29 hours	3	2.9%	21	11.9%	15	8.1%	39	8.3%
30-39 hours	15	14.3%	30	16.9%	15	8.1%	60	12.8%
40-49 hours	24	22.9%	36	20.3%	42	22.6%	102	21.8%
50-59 hours	36	34.3%	45	25.4%	66	35.5%	147	31.4%
60-69 hours	21	20.0%	36	20.3%	36	19.4%	93	19.9%
70+ hours	3	2.9%	3	1.7%	9	4.8%	15	3.2%

Base: respondents working medically as a doctor in PGY7. Question response rate: 94.5%

**Figure 5.** Number of hours worked in a typical week during PGY7.



Base: respondents working medically as a doctor in PGY7. Question response rate: 94.5%

**Table 27.** Medical work / placements by geographical location in PGY7. Percentages total more than 100% as respondents can indicate multiple placement locations.

Location	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
	n = 96		n = 165		n = 177		n = 438	
Major city	72	75.0%	129	78.2%	144	81.4%	345	78.8%
Regional centre	24	25.0%	33	20.0%	39	22.0%	96	21.9%
Small town / community	3	3.1%	18	10.9%	12	6.8%	33	7.5%

Base: respondents working medically as a doctor in New Zealand in PGY7. Question response rate: 100.0%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 28.** Enrolment in a college training programme in PGY7

Enrolled	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes	93	88.6%	153	86.4%	165	85.9%	411	86.7%
No, I have completed a College training programme	3	2.9%	12	6.8%	12	6.3%	27	5.7%
No, I have not enrolled in a College training programme	6	5.7%	12	6.8%	12	6.3%	30	6.3%
No, I have withdrawn from a College training programme	3	2.9%	..C	..C	3	1.6%	6	1.3%

Base: respondents working medically as a doctor in PGY7. Question response rate: 95.8%

**Table 29.** College training programme enrolments in PGY7

Location	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	12	13.3%	30	19.2%	36	22.2%	78	19.1%
Anaesthesia	9	10.0%	18	11.5%	15	9.3%	42	10.3%
Dermatology	-	-	..C	..C	..C	..C	..C	..C
Dual Vocational Training Program	..C	..C	3	1.9%	-	-	3	0.7%
Emergency Medicine	6	6.7%	3	1.9%	3	1.9%	12	2.9%
General Practice	27	30.0%	48	30.8%	33	20.4%	108	26.5%
Intensive Care Medicine	-	-	-	-	3	1.9%	3	0.7%
Medical Administration (e.g., managing a hospital)	-	-	-	-	..C	..C	..C	..C
Obstetrics and Gynaecology	6	6.7%	9	5.8%	15	9.3%	30	7.4%
Ophthalmology	3	3.3%	..C	..C	3	1.9%	6	1.5%
Paediatrics and Child Health	6	6.7%	9	5.8%	12	7.4%	27	6.6%
Pathology	..C	..C	3	1.9%	3	1.9%	6	1.5%
Psychiatry	3	3.3%	6	3.8%	3	1.9%	12	2.9%
Public Health Medicine	..C	..C	3	1.9%	..C	..C	3	0.7%
Radiation Oncology	-	-	3	1.9%	3	1.9%	6	1.5%
Radiology	9	10.0%	6	3.8%	9	5.6%	24	5.9%
Rural and Remote Medicine	3	3.3%	..C	..C	3	1.9%	6	1.5%
Sport and Exercise Medicine	-	-	-	-	..C	..C	..C	..C
Surgery	6	6.7%	9	5.8%	18	11.1%	33	8.1%
Urgent Care‡	-	-	-	-	3	1.9%	3	0.7%
Other	..C	..C	6	3.8%	-	-	6	1.5%

Base: respondents enrolled in in PGY7. Question response rate: 99.3%

‡Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Situation eight years after graduation (the PGY8 year)

**Table 30.** Main location eight years after graduation

Main activity during the PGY8 year	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Working in New Zealand	102	89.5%	162	85.7%	183	91.0%	447	88.7%
Working outside New Zealand	12	10.5%	27	14.3%	18	9.0%	57	11.3%

Base: all respondents. Question response rate: 97.1%

**Table 31.** Main activity eight years after graduation

Main activity during the PGY8 year	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
A House Officer	-	-	-	-	..C	..C	..C	..C
A Registrar	90	78.9%	132	68.8%	150	73.5%	372	72.9%
A vocationally registered specialist	12	10.5%	39	20.3%	33	16.2%	84	16.5%
Undertaking other medical work	3	2.6%	6	3.1%	3	1.5%	12	2.4%
Not working medically as a doctor	9	7.9%	15	7.8%	18	8.8%	42	8.2%

Base: all respondents. Question response rate: 98.3%

**Table 32.** Current situation of those not working medically as a doctor in PGY8. Percentages total to more than 100% as multiple options could be selected.

Situation of those not working medically as a doctor	Total (all years)	
	n = 42	
	n	%
Doing medically-related work that is non-clinical (e.g., medico-legal, teaching, research, committee work)	12	28.6%
Working in a non-medical role	6	14.3%
Parental leave	18	42.9%
Home duties / childcare / family responsibilities	6	14.3%
Enrolled as a student	9	21.4%
Other extended leave (e.g., sick leave, long service leave, travel, sabbatical)	..C	..C
Have permanently left the medical profession	9	21.4%

Base: respondents not working medically as a doctor in PGY8. Question response rate: 100.0%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 33.** Region of hospital / clinic based at when working as a Registrar / House officer / Vocationally-registered specialist in PGY8

Region of workplace	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Auckland	24	22.9%	54	31.6%	60	33.3%	138	30.3%
Bay of Plenty	6	5.7%	9	5.3%	9	5.0%	24	5.3%
Canterbury	21	20.0%	30	17.5%	30	16.7%	81	17.8%
Gisborne	-	-	3	1.8%	..C	..C	3	0.7%
Hawke's Bay	3	2.9%	..C	..C	9	5.0%	12	2.6%
Manawatu-Whanganui	3	2.9%	3	1.8%	6	3.3%	12	2.6%
Marlborough	-	-	..C	..C	-	-	..C	..C
Nelson	-	-	..C	..C	3	1.7%	3	0.7%
Northland	6	5.7%	9	5.3%	3	1.7%	18	3.9%
Otago	6	5.7%	6	3.5%	6	3.3%	18	3.9%
Southland	3	2.9%	..C	..C	3	1.7%	6	1.3%
Taranaki	3	2.9%	3	1.8%	3	1.7%	9	2.0%
Tasman	-	-	6	3.5%	..C	..C	6	1.3%
Taupo	..C	..C	-	-	-	-	..C	..C
Waikato	3	2.9%	6	3.5%	6	3.3%	15	3.3%
Wellington Region	18	17.1%	21	12.3%	27	15.0%	66	14.5%
Country other than New Zealand	9	8.6%	21	12.3%	15	8.3%	45	9.9%

Base: respondents working medically as a doctor in PGY8. Question response rate: 95.6%

**Table 34.** Working full-time or part-time in PGY8

Work hours	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Full-time	90	85.7%	135	76.3%	144	77.4%	369	78.8%
Part-time	15	14.3%	42	23.7%	42	22.6%	99	21.2%

Base: respondents working medically as a doctor in PGY8. Question response rate: 98.1%

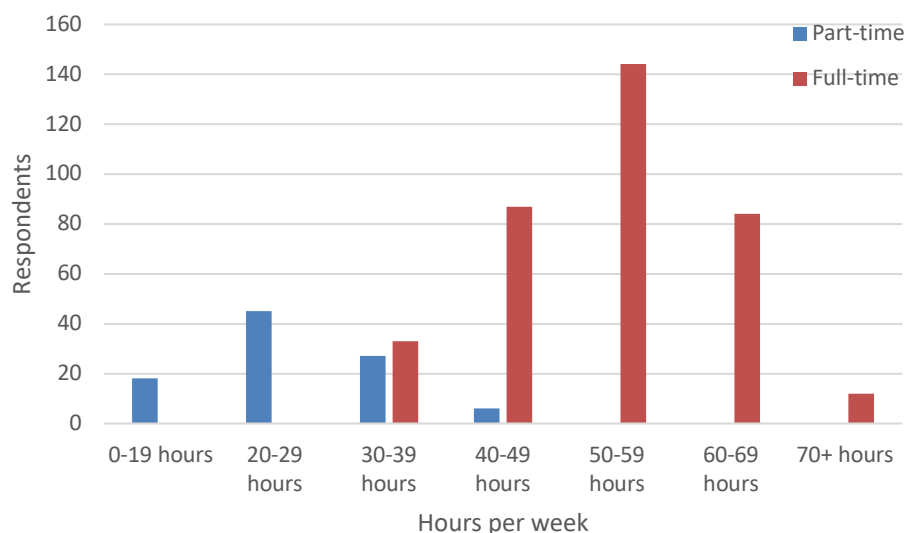
† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 35.** Number of hours worked in a typical week during PGY8

Work hours per week	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
0-19 hours	3	3.0%	9	5.2%	6	3.3%	18	3.9%
20-29 hours	6	6.1%	21	12.1%	18	9.8%	45	9.9%
30-39 hours	9	9.1%	30	17.2%	21	11.5%	60	13.2%
40-49 hours	24	24.2%	30	17.2%	39	21.3%	93	20.4%
50-59 hours	39	39.4%	51	29.3%	54	29.5%	144	31.6%
60-69 hours	15	15.2%	30	17.2%	39	21.3%	84	18.4%
70+ hours	3	3.0%	3	1.7%	6	3.3%	12	2.6%

Base: respondents working medically as a doctor in PGY8. Question response rate: 95.6%

**Figure 6.** Number of hours worked in a typical week during PGY8.

Base: respondents working medically as a doctor in PGY8. Question response rate: 95.6%

**Table 36.** Medical work / placements by geographical location in PGY8. Percentages total more than 100% as respondents can indicate multiple placement locations.

Location	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Major city	75	71.4%	123	69.5%	144	76.2%	342	72.6%
Regional centre	18	17.1%	30	16.9%	36	19.0%	84	17.8%
Small town / community	6	5.7%	18	10.2%	9	4.8%	33	7.0%

Base: respondents working medically as a doctor in PGY8. Question response rate: 98.7%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 37.** Enrolment in a college training programme in PGY8

Enrolled	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes	93	88.6%	138	78.0%	153	82.3%	384	82.1%
No, I have completed a College training programme	9	8.6%	33	18.6%	24	12.9%	66	14.1%
No, I have not enrolled in a College training programme	..C	..C	6	3.4%	6	3.2%	12	2.6%
No, I have withdrawn from a College training programme	3	2.9%	..C	..C	3	1.6%	6	1.3%

Base: respondents working medically as a doctor in PGY8. Question response rate: 98.1%

**Table 38.** College training programme enrolments in PGY8

Location	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	12	12.9%	24	17.0%	33	22.0%	69	18.0%
Anaesthesia	6	6.5%	15	10.6%	15	10.0%	36	9.4%
Dermatology	-	-	3	2.1%	3	2.0%	6	1.6%
Dual Vocational Training Program	3	3.2%	3	2.1%	-	-	6	1.6%
Emergency Medicine	9	9.7%	6	4.3%	..C	..C	15	3.9%
General Practice	24	25.8%	42	29.8%	24	16.0%	90	23.4%
Intensive Care Medicine	..C	..C	-	-	..C	..C	..C	..C
Medical Administration (e.g., managing a hospital)	-	-	-	-	..C	..C	..C	..C
Obstetrics and Gynaecology	3	3.2%	9	6.4%	12	8.0%	24	6.3%
Ophthalmology	6	6.5%	..C	..C	..C	..C	6	1.6%
Paediatrics and Child Health	3	3.2%	6	4.3%	15	10.0%	24	6.3%
Pain Medicine	-	-	3	2.1%	-	-	3	0.8%
Palliative Medicine	3	3.2%	..C	..C	..C	..C	3	0.8%
Pathology	3	3.2%	-	-	3	2.0%	6	1.6%
Psychiatry	3	3.2%	6	4.3%	6	4.0%	15	3.9%
Public Health Medicine	3	3.2%	..C	..C	..C	..C	3	0.8%
Radiation Oncology	-	-	3	2.1%	3	2.0%	6	1.6%
Radiology	9	9.7%	3	2.1%	9	6.0%	21	5.5%
Rural and Remote Medicine	..C	..C	3	2.1%	..C	..C	3	0.8%
Sport and Exercise Medicine	-	-	-	-	3	2.0%	3	0.8%
Surgery	6	6.5%	12	8.5%	21	14.0%	39	10.2%
Urgent Care†	-	-	-	-	3	2.0%	3	0.8%
Other	..C	..C	3	2.1%	..C	..C	3	0.8%

Base: respondents enrolled in in PGY8. Question response rate: 100.0%

†Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

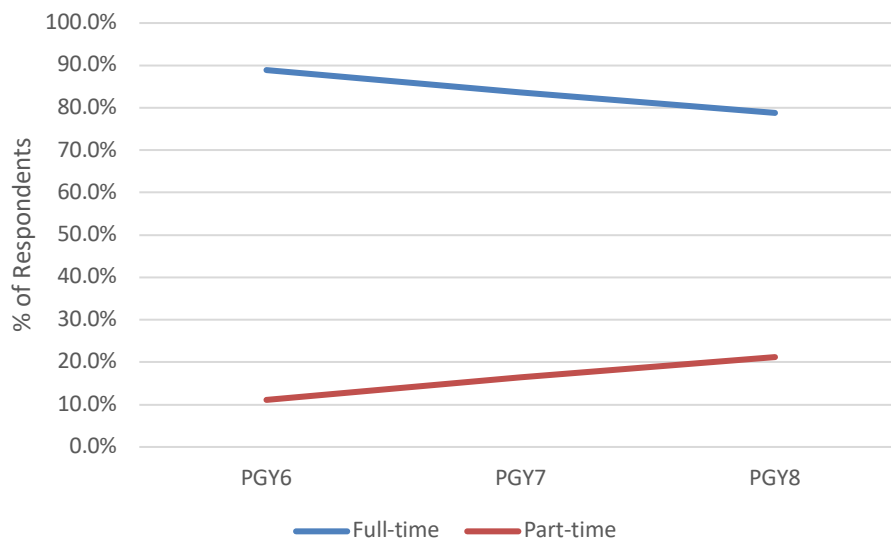
Cross-sectional trends across PGY6 – PGY8

**Table 39.** Working full-time or part-time in PGY6, PGY7, and PGY8 (all cohorts)

Work hours	PGY6		PGY7		PGY8	
	n	%	n	%	n	%
Full-time	408	88.9%	399	83.6%	369	78.8%
Part-time	51	11.1%	78	16.4%	99	21.2%

Derived from Table 16, Table 25, and Table 34

**Figure 7.** Proportion of cohort working full-time or part-time in PGY6, PGY7 and PGY8



**Table 40.** Mean typical work hours per week in PGY6, PGY7, and PGY8 (all cohorts)

Full-time	PGY6	PGY7	PGY8
Mean	51.2	50.9	50.8
Standard deviation	9.7	10.0	9.8
<b>Part-time</b>			
Mean	26.9	26.6	25.4
Standard deviation	8.3	7.5	8.4

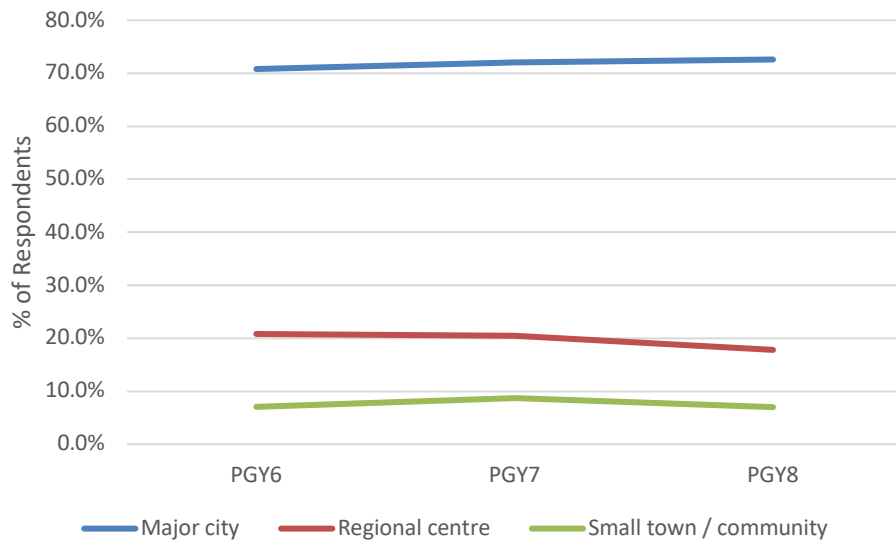
Base: respondents working medically as a doctor in PGY6, PGY7 or PGY8. Question response rate: 98.8%

**Table 41.** Medical work / placements by geographical location in PGY6, PGY7, and PGY8 (all cohorts)

Location	PGY6		PGY7		PGY8	
	n = 462		n = 483		n = 471	
	n	%	n	%	n	%
Major city	327	70.8%	348	72.0%	342	72.6%
Regional centre	96	20.8%	99	20.5%	84	17.8%
Small town / community	33	7.1%	42	8.7%	33	7.0%

Derived from Table 18, Table 27, and Table 36

**Figure 8.** Breakdown of geographical location of placements held in PGY6, PGY7 and PGY8



Symbol ..C indicates suppression of frequencies less than three

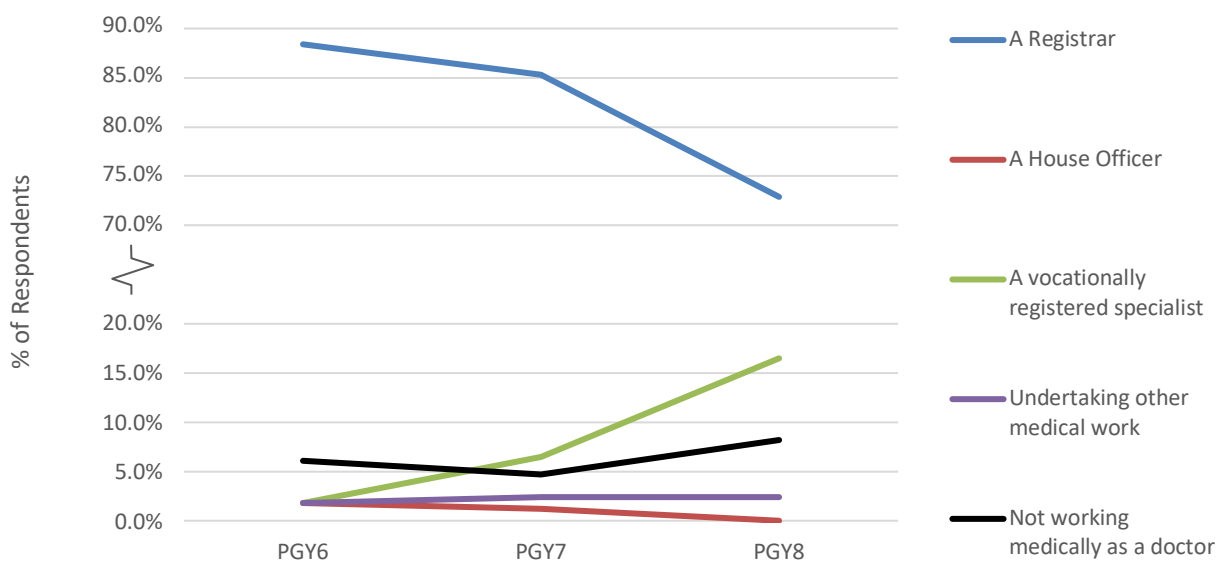


**Table 42.** Main activity six, seven and eight years after graduation (all cohorts)

Main activity during the year	PGY6		PGY7		PGY8	
	n	%	n	%	n	%
A House Officer	9	1.8%	6	1.2%	..C	..C
A Registrar	435	88.4%	435	85.3%	372	72.9%
A vocationally registered specialist	9	1.8%	33	6.5%	84	16.5%
Undertaking other medical work	9	1.8%	12	2.4%	12	2.4%
Not working medically as a doctor	30	6.1%	24	4.7%	42	8.2%

Derived from Table 13, Table 22, and Table 31

**Figure 9.** Main activity of respondents during PGY6, PGY7 and PGY8. Note the discontinuity on the vertical axis.



Symbol ..C indicates suppression of frequencies less than three

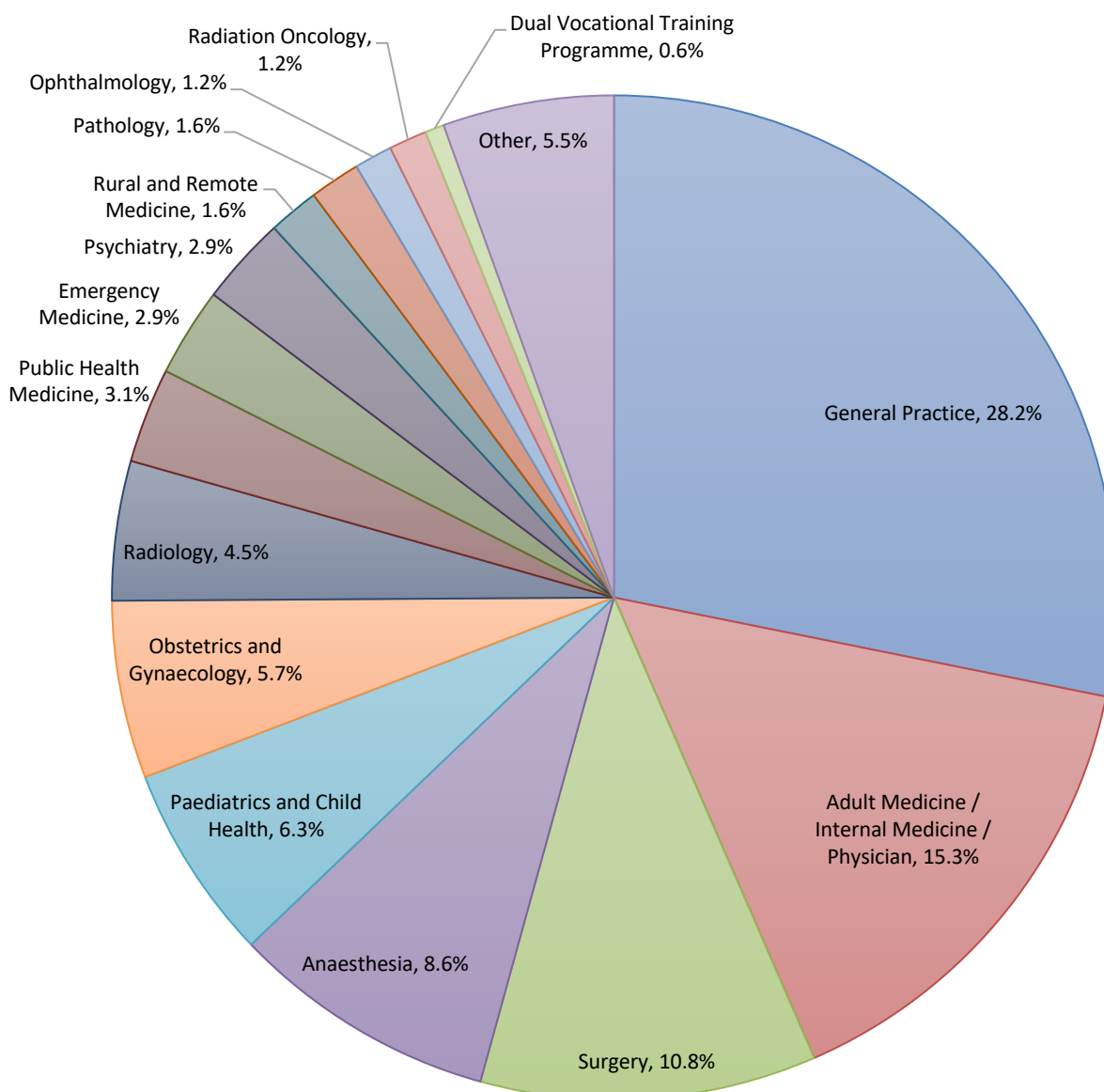
Future medical specialty

**Table 43.** Decided on future medical specialty

Decided on future medical specialty	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes	99	94.3%	177	93.7%	189	95.5%	465	94.5%
No	6	5.7%	12	6.3%	9	4.5%	27	5.5%

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

**Figure 10.** First preference of medical specialty irrespective of whether a future medical specialty had been decided (n = 489). This figure is based on the total column of **Table 44**.



† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 44.** First preference of medical specialty irrespective of whether a future medical specialty had been decided (ranked by Total column). Only the top ten ranks given due to small numbers thereafter.

Medical specialty	Survey year							
	2019†		2020		2021		Total	
	n = 104		n = 186		n = 198		n = 489	
	%	Rank	%	Rank	%	Rank	%	Rank
General Practice	25.7%	1	35.5%	1	22.7%	1	28.2%	1
Adult Medicine / Internal Medicine / Physician	15.2%	2	13.4%	2	17.2%	2	15.3%	2
Surgery	9.5%	3	8.6%	4	13.6%	3	10.8%	3
Anaesthesia	6.7%	5	9.7%	3	8.6%	4	8.6%	4
Paediatrics and Child Health	5.7%	6=	5.9%	5	7.1%	5	6.3%	5
Obstetrics and Gynaecology	5.7%	6=	4.8%	6	6.6%	6	5.7%	6
Radiology	7.6%	4	3.8%	7	3.5%	7	4.5%	7
Public Health Medicine	3.8%	9=	2.7%	8=	3.0%	8=	3.1%	8
Emergency Medicine	5.7%	6=	2.2%	10=	2.0%		2.9%	9=
Psychiatry	2.9%		2.7%	8=	3.0%	8=	2.9%	9=
Rural and Remote Medicine	1.0%		2.2%	10=	1.5%		1.6%	
Pathology	1.0%		0.5%		3.0%	8=	1.6%	
Ophthalmology	3.8%	9=	0.5%		0.5%		1.2%	
Radiation Oncology	0.0%		2.2%	10=	1.0%		1.2%	
Dual Vocational Training Programme	1.0%		1.1%		0.0%		0.6%	
Palliative Medicine	1.0%		0.5%		0.5%		0.6%	
Dermatology	0.0%		1.1%		0.5%		0.6%	
Sport and Exercise Medicine	0.0%		0.0%		1.5%		0.6%	
Urgent Care‡	0.0%		0.0%		1.5%		0.6%	
Medical Administration (e.g., managing a hospital)	1.0%		0.0%		0.5%		0.4%	
Intensive Care Medicine	1.0%		0.0%		0.5%		0.4%	
Addiction Medicine	0.0%		0.5%		0.0%		0.2%	
Non-Specialist Hospital Practice (e.g., career as a medical officer in a hospital)	0.0%		0.0%		0.5%		0.2%	
Other	1.0%		3.2%		1.0%		1.8%	

Base: respondents who have not left the medical profession. Question response rate: 95.9%

‡Urgent Care added as an option in 2021.

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 45.** Participated in medical teaching during medical career

Interest in teaching	Survey year						Total	
	2019†		2020		2021		n	%
	n	%	n	%	n	%		
Yes	69	65.7%	108	56.3%	129	64.2%	306	61.4%
No, but interested	21	20.0%	57	29.7%	39	19.4%	117	23.5%
No	15	14.3%	27	14.1%	33	16.4%	75	15.1%

Base: respondents who have not left the medical profession. Question response rate: 97.6%

**Table 46.** Participated in research during medical career

Interest in research	Survey year						Total	
	2019†		2020		2021		n	%
	n	%	n	%	n	%		
Yes	39	37.1%	75	39.1%	87	43.3%	201	40.4%
No, but interested	18	17.1%	48	25.0%	36	17.9%	102	20.5%
No	48	45.7%	69	35.9%	78	38.8%	195	39.2%

Base: respondents who have not left the medical profession. Question response rate: 97.6%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Intentions for year nine after graduation (the PGY9 year)

**Table 47.** Intentions for PGY9 (ranked by Total column)

Intention for PGY9	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Continue a vocational training programme	63	63.6%	99	50.8%	108	55.4%	270	55.2%
Undertake work as a specialist	18	18.2%	57	29.2%	45	23.1%	120	24.5%
Parental leave / home duties / childcare / family responsibilities	6	6.1%	15	7.7%	18	9.2%	39	8.0%
Work outside New Zealand in a medical role	3	3.0%	6	3.1%	6	3.1%	15	3.1%
Enter a vocational training programme	..C	..C	3	1.5%	9	4.6%	12	2.5%
Undertake research	3	3.0%	3	1.5%	3	1.5%	9	1.8%
Continue as a house officer/ non-training registrar / medical officer	-	-	6	3.1%	..C	..C	6	1.2%
Do non-medical work	3	3.0%	3	1.5%	-	-	6	1.2%
Change role within the medical profession	3	3.0%	-	-	..C	..C	3	0.6%
Go on vacation / extended leave / take a break	..C	..C	-	-	3	1.5%	3	0.6%
Leave medicine as a career	..C	..C	-	-	3	1.5%	3	0.6%
Enrol as a student in another course	-	-	-	-	..C	..C	..C	..C
Other	..C	..C	3	1.5%	..C	..C	3	0.6%

Base: respondents who have not left the medical profession. Question response rate: 95.9%

**Table 48.** Vocational specialty of those intending to work as a specialist in PGY9

Vocational specialty	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
General Practice	12	66.7%	36	63.2%	21	46.7%	69	57.5%
Other specialties	6	33.3%	21	36.8%	24	53.3%	51	42.5%

Base: respondents intending to undertake work as a specialist in PGY9. Question response rate: 100.0%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 49.** Medical specialty of those intending to *continue* a vocational training programme in PGY9 (ranked by Total column)

Vocational training programme	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	9	15.0%	18	20.0%	21	17.9%	48	18.0%
General Practice	12	20.0%	15	16.7%	12	10.3%	39	14.6%
Surgery	6	10.0%	12	13.3%	18	15.4%	36	13.5%
Anaesthesia	3	5.0%	9	10.0%	12	10.3%	24	9.0%
Obstetrics and Gynaecology	6	10.0%	6	6.7%	12	10.3%	24	9.0%
Paediatrics and Child Health	3	5.0%	9	10.0%	9	7.7%	21	7.9%
Radiology	6	10.0%	3	3.3%	6	5.1%	15	5.6%
Emergency Medicine	6	10.0%	3	3.3%	3	2.6%	12	4.5%
Psychiatry	3	5.0%	6	6.7%	3	2.6%	12	4.5%
Dual Vocational Training Program	3	5.0%	3	3.3%	3	2.6%	9	3.4%
Public Health Medicine	..C	..C	..C	..C	3	2.6%	3	1.1%
Rural and Remote Medicine	-	-	..C	..C	3	2.6%	3	1.1%
Pathology	-	-	-	-	3	2.6%	3	1.1%
Ophthalmology	3	5.0%	-	-	..C	..C	3	1.1%
Radiation Oncology	-	-	3	3.3%	-	-	3	1.1%
Urgent Care‡	-	-	-	-	3	2.6%	3	1.1%
Sport and Exercise Medicine	-	-	-	-	3	2.6%	3	1.1%
Intensive Care Medicine	-	-	-	-	3	2.6%	3	1.1%
Palliative Medicine	..C	..C	..C	..C	..C	..C	..C	..C
Medical Administration (e.g., managing a hospital)	-	-	-	-	..C	..C	..C	..C
Dermatology	-	-	..C	..C	-	-	..C	..C
Other	-	-	3	3.3%	-	-	3	1.1%

Base: respondents who intend to continue vocational training in PGY9. Question response rate: 98.9%

‡Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 50.** Medical specialty of those intending to enter or continue a vocational training programme in PGY9 (ranked by Total column)

Vocational training programme	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	9	16.7%	18	18.2%	21	17.9%	48	17.8%
General Practice	12	22.2%	15	15.2%	12	10.3%	39	14.4%
Surgery	6	11.1%	12	12.1%	24	20.5%	42	15.6%
Anaesthesia	6	11.1%	9	9.1%	9	7.7%	24	8.9%
Obstetrics and Gynaecology	6	11.1%	6	6.1%	12	10.3%	24	8.9%
Paediatrics and Child Health	3	5.6%	6	6.1%	6	5.1%	15	5.6%
Radiology	3	5.6%	6	6.1%	3	2.6%	12	4.4%
Emergency Medicine	6	11.1%	3	3.0%	..C	..C	9	3.3%
Psychiatry	..C	..C	6	6.1%	3	2.6%	9	3.3%
Dual Vocational Training Program	..C	..C	6	6.1%	3	2.6%	9	3.3%
Public Health Medicine	..C	..C	..C	..C	6	5.1%	6	2.2%
Rural and Remote Medicine	-	-	3	3.0%	3	2.6%	6	2.2%
Palliative Medicine	3	5.6%	..C	..C	3	2.6%	6	2.2%
Pathology	-	-	-	-	3	2.6%	3	1.1%
Radiation Oncology	-	-	3	3.0%	-	-	3	1.1%
Urgent Care†	-	-	-	-	3	2.6%	3	1.1%
Sport and Exercise Medicine	-	-	-	-	3	2.6%	3	1.1%
Intensive Care Medicine	-	-	-	-	3	2.6%	3	1.1%
Dermatology	-	-	3	3.0%	-	-	3	1.1%
Ophthalmology	..C	..C	-	-	..C	..C	..C	..C
Medical Administration (e.g., managing a hospital)	-	-	-	-	..C	..C	..C	..C
Other	-	-	3	3.0%	-	-	3	1.1%

Base: respondents who intend to enter or continue vocational training in PGY9. Question response rate: 95.7%

†Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Intentions for year ten after graduation (the PGY10 year)

**Table 51.** Intentions for PGY10 (ranked by Total column)

Intention for PGY10	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Continue a vocational training programme	39	39.4%	69	34.8%	84	45.2%	192	39.8%
Undertake work as a specialist	39	39.4%	84	42.4%	72	38.7%	195	40.4%
Parental leave / home duties / childcare / family responsibilities	9	9.1%	15	7.6%	12	6.5%	36	7.5%
Work outside New Zealand in a medical role	9	9.1%	6	3.0%	12	6.5%	27	5.6%
Undertake research	..C	..C	12	6.1%	..C	..C	12	2.5%
Enter a vocational training programme	..C	..C	3	1.5%	..C	..C	3	0.6%
Do non-medical work	..C	..C	3	1.5%	..C	..C	3	0.6%
Change role within the medical profession	-	-	3	1.5%	-	-	3	0.6%
Go on vacation / extended leave / take a break	3	3.0%	-	-	-	-	3	0.6%
Continue as a house officer/ non-training registrar / medical officer	-	-	3	1.5%	-	-	3	0.6%
Leave medicine as a career	..C	..C	-	-	-	-	..C	..C
Enrol as a student in another course	..C	..C	-	-	..C	..C	..C	..C
Other	-	-	..C	..C	6	3.2%	6	1.2%

Base: respondents who have not left the medical profession. Question response rate: 94.7%

**Table 52.** Vocational specialty of those intending to work as a specialist in PGY10 (ranked by Total column)

Vocational specialty	Survey year							
	2019		2020		2021		Total	
	n	%	n	%	n	%	n	%
General Practice	15	45.5%	39	48.1%	30	38.5%	84	44.4%
Anaesthesia	3	9.1%	9	11.1%	6	7.7%	18	9.5%
Adult Medicine / Internal Medicine / Physician	3	9.1%	6	7.4%	6	7.7%	15	7.9%
Surgery	..C	..C	3	3.7%	6	7.7%	9	4.8%
Psychiatry	3	9.1%	3	3.7%	3	3.8%	9	4.8%
Paediatrics and Child Health	3	9.1%	3	3.7%	3	3.8%	9	4.8%
Radiology	3	9.1%	3	3.7%	..C	..C	6	3.2%
Pathology	..C	..C	-	-	6	7.7%	6	3.2%
Rural and Remote Medicine	..C	..C	3	3.7%	3	3.8%	6	3.2%
Public Health Medicine	-	-	3	3.7%	3	3.8%	6	3.2%
Other specialties	..C	..C	9	11.1%	12	15.4%	21	11.1%

Base: respondents intending to undertake work as a specialist in PGY10. Question response rate: 96.9%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three



**Table 53.** Medical specialty of those intending to *continue* a vocational training programme in PGY10 (ranked by Total column)

Vocational training programme	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	9	21.4%	12	17.4%	18	24.0%	39	21.0%
Surgery	3	7.1%	9	13.0%	15	20.0%	27	14.5%
General Practice	6	14.3%	12	17.4%	6	8.0%	24	12.9%
Obstetrics and Gynaecology	6	14.3%	6	8.7%	9	12.0%	21	11.3%
Paediatrics and Child Health	3	7.1%	6	8.7%	6	8.0%	15	8.1%
Anaesthesia	..C	..C	6	8.7%	6	8.0%	12	6.5%
Radiology	3	7.1%	3	4.3%	3	4.0%	9	4.8%
Emergency Medicine	3	7.1%	3	4.3%	..C	..C	6	3.2%
Dual Vocational Training Program	3	7.1%	3	4.3%	..C	..C	6	3.2%
Palliative Medicine	3	7.1%	3	4.3%	..C	..C	6	3.2%
Public Health Medicine	..C	..C	..C	..C	3	4.0%	3	1.6%
Radiation Oncology			3	4.3%	..C	..C	3	1.6%
Ophthalmology	3	7.1%	..C	..C			3	1.6%
Pathology			3	4.3%	..C	..C	3	1.6%
Rural and Remote Medicine					3	4.0%	3	1.6%
Sport and Exercise Medicine					3	4.0%	3	1.6%
Urgent Care†					3	4.0%	3	1.6%
Psychiatry			..C	..C	..C	..C	..C	..C
Intensive Care Medicine					..C	..C	..C	..C
Other			..C	..C			..C	..C

Base: respondents who intend to continue vocational training in PGY10. Question response rate: 96.9%

†Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 54.** Medical specialty of those intending to enter or continue a vocational training programme in PGY10 (ranked by Total column)

Vocational training programme	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	9	20.0%	12	16.7%	18	24.0%	39	20.3%
Surgery	3	6.7%	12	16.7%	15	20.0%	30	15.6%
General Practice	6	13.3%	12	16.7%	6	8.0%	24	12.5%
Obstetrics and Gynaecology	6	13.3%	6	8.3%	9	12.0%	21	10.9%
Paediatrics and Child Health	3	6.7%	6	8.3%	6	8.0%	15	7.8%
Anaesthesia	..C	..C	6	8.3%	6	8.0%	12	6.3%
Radiology	3	6.7%	3	4.2%	3	4.0%	9	4.7%
Emergency Medicine	3	6.7%	3	4.2%	..C	..C	6	3.1%
Dual Vocational Training Program	3	6.7%	3	4.2%	..C	..C	6	3.1%
Palliative Medicine	3	6.7%	3	4.2%	..C	..C	6	3.1%
Public Health Medicine	3	6.7%	..C	..C	3	4.0%	6	3.1%
Radiation Oncology	-	-	3	4.2%	..C	..C	3	1.6%
Ophthalmology	3	6.7%	..C	..C	-	-	3	1.6%
Pathology	-	-	3	4.2%	..C	..C	3	1.6%
Rural and Remote Medicine	-	-	-	-	3	4.0%	3	1.6%
Sport and Exercise Medicine	-	-	-	-	3	4.0%	3	1.6%
Urgent Care	-	-	-	-	3	4.0%	3	1.6%
Psychiatry	-	-	..C	..C	..C	..C	..C	..C
Intensive Care Medicine	-	-	-	-	..C	..C	..C	..C
Other	-	-	..C	..C	-	-	..C	..C

Base: respondents who intend to continue vocational training in PGY10. Question response rate: 98.5%

†Urgent Care option added in 2021

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

Intentions for year eleven after graduation (the PGY11 year)

**Table 55.** Intentions for PGY11 (ranked by Total column)

Intention for PGY11	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Undertake work as a specialist	54	52.9%	105	53.8%	114	55.9%	273	54.5%
Continue a vocational training programme	30	29.4%	51	26.2%	51	25.0%	132	26.3%
Work outside New Zealand in a medical role	12	11.8%	6	3.1%	12	5.9%	30	6.0%
Parental leave / home duties / childcare / family responsibilities	3	2.9%	6	3.1%	6	2.9%	15	3.0%
Undertake research	..C	..C	9	4.6%	3	1.5%	12	2.4%
Do non-medical work	3	2.9%	3	1.5%	..C	..C	6	1.2%
Enter a vocational training programme	-	-	3	1.5%	3	1.5%	6	1.2%
Leave medicine as a career	..C	..C	3	1.5%	3	1.5%	6	1.2%
Change role within the medical profession	..C	..C	..C	..C	3	1.5%	3	0.6%
Go on vacation / extended leave / take a break	..C	..C	..C	..C	3	1.5%	3	0.6%
Continue as a house officer/ non-training registrar / medical officer	-	-	3	1.5%	-	-	3	0.6%
Enrol as a student in another course	..C	..C	-	-	..C	..C	..C	..C
Other	..C	..C	6	3.1%	6	2.9%	12	2.4%

Base: respondents who have not left the medical profession. Question response rate: 98.2%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 56.** Vocational specialty of those intending to work as a specialist in PGY11 (ranked by Total column)

Vocational specialty	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
General Practice	21	41.2%	45	45.5%	36	31.6%	102	38.6%
Adult Medicine / Internal Medicine / Physician	3	5.9%	6	6.1%	15	13.2%	24	9.1%
Anaesthesia	3	5.9%	12	12.1%	9	7.9%	24	9.1%
Surgery	3	5.9%	6	6.1%	9	7.9%	18	6.8%
Radiology	6	11.8%	3	3.0%	6	5.3%	15	5.7%
Paediatrics and Child Health	3	5.9%	3	3.0%	3	2.6%	9	3.4%
Psychiatry	3	5.9%	3	3.0%	3	2.6%	9	3.4%
Obstetrics and Gynaecology	..C	..C	3	3.0%	6	5.3%	9	3.4%
Pathology	..C	..C	3	3.0%	6	5.3%	9	3.4%
Public Health Medicine	3	5.9%	3	3.0%	3	2.6%	9	3.4%
Rural and Remote Medicine	..C	..C	3	3.0%	3	2.6%	6	2.3%
Emergency Medicine	3	5.9%	..C	..C	3	2.6%	6	2.3%
Dermatology	-	-	3	3.0%	..C	..C	3	1.1%
Ophthalmology	..C	..C	3	3.0%	-	-	3	1.1%
Urgent Care	-	-	-	-	3	2.6%	3	1.1%
Other specialties	3	5.9%	3	3.0%	9	7.9%	15	5.7%

Base: respondents intending to undertake work as a specialist in PGY11. Question response rate: 96.7%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

**Table 57.** Medical specialty of those intending to *continue* a vocational training programme in PGY11 (ranked by Total column)

Vocational training programme	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	9	27.3%	9	20.0%	9	17.6%	27	20.9%
Surgery	3	9.1%	6	13.3%	15	29.4%	24	18.6%
General Practice	6	18.2%	6	13.3%	3	5.9%	15	11.6%
Obstetrics and Gynaecology	3	9.1%	6	13.3%	6	11.8%	15	11.6%
Paediatrics and Child Health	..C	..C	3	6.7%	9	17.6%	12	9.3%
Emergency Medicine	6	18.2%	3	6.7%	-	-	9	7.0%
Anaesthesia	..C	..C	3	6.7%	3	5.9%	6	4.7%
Radiology	..C	..C	3	6.7%	..C	..C	3	2.3%
Public Health Medicine	3	9.1%	..C	..C	..C	..C	3	2.3%
Radiation Oncology	-	-	3	6.7%	..C	..C	3	2.3%
Other	3	9.1%	3	6.7%	6	11.8%	12	9.3%

Base: respondents who intend to continue vocational training in PGY11. Question response rate: 97.7%

**Table 58.** Medical specialty of those intending to enter or continue a vocational training programme in PGY11 (ranked by Total column)

Vocational training programme	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Adult Medicine / Internal Medicine / Physician	9	27.3%	9	20.0%	9	17.6%	27	20.9%
Surgery	3	9.1%	6	13.3%	15	29.4%	24	18.6%
General Practice	6	18.2%	6	13.3%	3	5.9%	15	11.6%
Obstetrics and Gynaecology	3	9.1%	6	13.3%	6	11.8%	15	11.6%
Paediatrics and Child Health	..C	..C	3	6.7%	9	17.6%	12	9.3%
Emergency Medicine	6	18.2%	3	6.7%	-	-	9	7.0%
Anaesthesia	..C	..C	3	6.7%	3	5.9%	6	4.7%
Radiology	..C	..C	3	6.7%	..C	..C	3	2.3%
Public Health Medicine	3	9.1%	..C	..C	..C	..C	3	2.3%
Radiation Oncology	-	-	3	6.7%	..C	..C	3	2.3%
Other	3	9.1%	3	6.7%	6	11.8%	12	9.3%

Base: respondents who intend to continue vocational training in PGY11. Question response rate: 93.5%

† University of Otago data only in 2019.

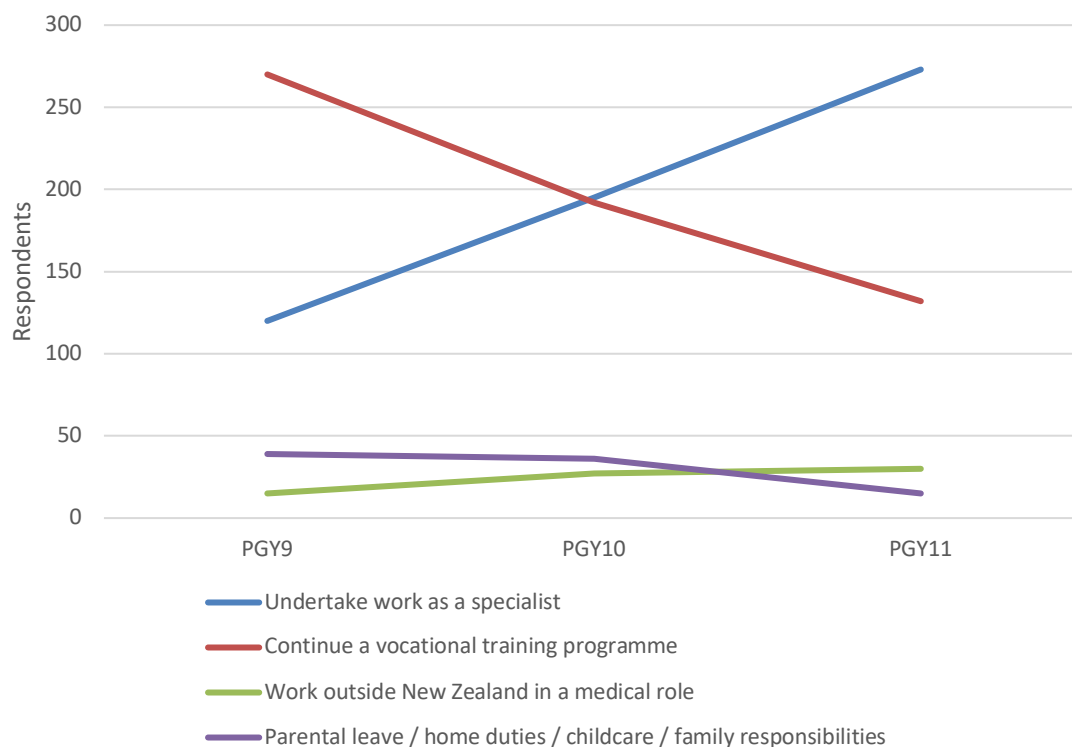
Symbol ..C indicates suppression of frequencies less than three

**Table 59.** Main intentions for PGY9, PGY10, and PGY11 (ranked by PGY11 column)

Main intentions	PGY9		PGY10		PGY11	
	n	%	n	%	n	%
Undertake work as a specialist	120	24.5%	195	40.4%	273	54.5%
Continue a vocational training programme	270	55.2%	192	39.8%	132	26.3%
Work outside New Zealand in a medical role	15	3.1%	27	5.6%	30	6.0%
Parental leave / home duties / childcare / family responsibilities	39	8.0%	36	7.5%	15	3.0%
Other	3	0.6%	6	1.2%	12	2.4%
Undertake research	9	1.8%	12	2.5%	12	2.4%
Do non-medical work	6	1.2%	3	0.6%	6	1.2%
Enter a vocational training programme	12	2.5%	3	0.6%	6	1.2%
Leave medicine as a career	3	0.6%	..C	..C	6	1.2%
Change role within the medical profession	3	0.6%	3	0.6%	3	0.6%
Continue as a house officer/ non-training registrar / medical officer	6	1.2%	3	0.6%	3	0.6%
Go on vacation / extended leave / take a break	3	0.6%	3	0.6%	3	0.6%
Enrol as a student in another course	..C	..C	..C	..C	..C	..C

Derived from Table 47, Table 51, and Table 55

**Figure 11.** Main intentions of respondents for the next three years (PGY9, PGY10 and PGY11). Only the top four categories are shown.



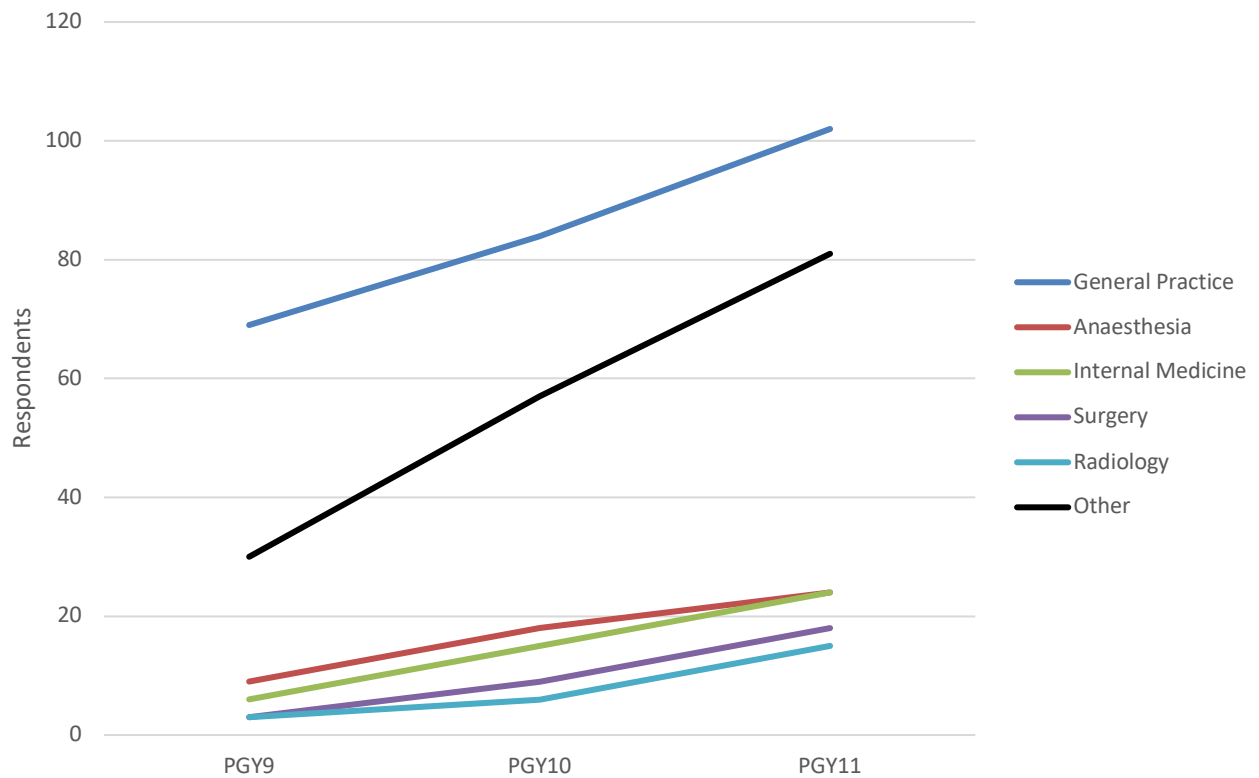
Symbol ..C indicates suppression of frequencies less than three

**Table 60.** Vocational specialty of those intending to work as a specialist in PGY9, PGY10 and PGY11 (ranked by PGY11 column)

Vocational specialty	PGY9		PGY10		PGY11	
	n	%	n	%	n	%
General Practice	69	57.5%	84	44.4%	102	38.6%
Anaesthesia	9	7.5%	18	9.5%	24	9.1%
Adult Medicine / Internal Medicine / Physician	6	5.0%	15	7.9%	24	9.1%
Surgery	3	2.5%	9	4.8%	18	6.8%
Radiology	3	2.5%	6	3.2%	15	5.7%
Other specialties	30	25.0%	57	30.2%	81	30.7%

Derived from Table 48 (with additional data), Table 52, and Table 56

**Figure 12.** Vocational specialties of those intending to work as a specialist in PGY9, PGY10 and PGY11. Only the top five specialties are shown (based on PGY11 numbers).



Symbol ..C indicates suppression of frequencies less than three

**Table 61.** First preference of country of future practice

First preference of country of future practice	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
New Zealand	90	90.9%	168	90.3%	183	92.4%	441	91.3%
Country other than New Zealand	9	9.1%	18	9.7%	15	7.6%	42	8.7%

Base: respondents who have not left the medical profession. Question response rate: 94.7%

**Table 62.** Preferred population centre size of future practice

First preference of population centre size of future practice	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Major city (pop. 100,000 or greater)	72	64.9%	123	64.1%	129	66.2%	324	65.1%
Regional centre or large town (pop. 25,000 – 100,000)	24	21.6%	45	23.4%	51	26.2%	120	24.1%
Town (pop. 10,000 – 24,999)	6	5.4%	9	4.7%	..C	..C	15	3.0%
Small town (pop. 10,000 or fewer)	3	2.7%	9	4.7%	6	3.1%	18	3.6%
Not applicable, not intending to work in New Zealand	6	5.4%	6	3.1%	9	4.6%	21	4.2%

Base: respondents who have not left the medical profession. Question response rate: 97.6%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three



**Table 63.** First preference for region of future practice

First preference of region of future practice	Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Auckland	24	23.5%	48	26.2%	57	28.8%	129	26.7%
Bay of Plenty	9	8.8%	15	8.2%	9	4.5%	33	6.8%
Canterbury	21	20.6%	27	14.8%	27	13.6%	75	15.5%
Gisborne	-	-	3	1.6%	3	1.5%	6	1.2%
Hawke's Bay	3	2.9%	9	4.9%	12	6.1%	24	5.0%
Manawatu-Whanganui	3	2.9%	6	3.3%	3	1.5%	12	2.5%
Nelson	-	-	3	1.6%	9	4.5%	12	2.5%
Northland	6	5.9%	6	3.3%	9	4.5%	21	4.3%
Otago	6	5.9%	9	4.9%	12	6.1%	27	5.6%
Southland	3	2.9%	..C	..C	-	-	3	0.6%
Taranaki	3	2.9%	6	3.3%	6	3.0%	15	3.1%
Tasman	-	-	6	3.3%	-	-	6	1.2%
Taupo	3	2.9%	-	-	-	-	3	0.6%
Waikato	..C	..C	6	3.3%	6	3.0%	12	2.5%
Wellington Region	12	11.8%	21	11.5%	30	15.2%	63	13.0%
Country other than New Zealand	9	8.8%	18	9.8%	15	7.6%	42	8.7%

Base: respondents who have not left the medical profession. Question response rate: 94.7%

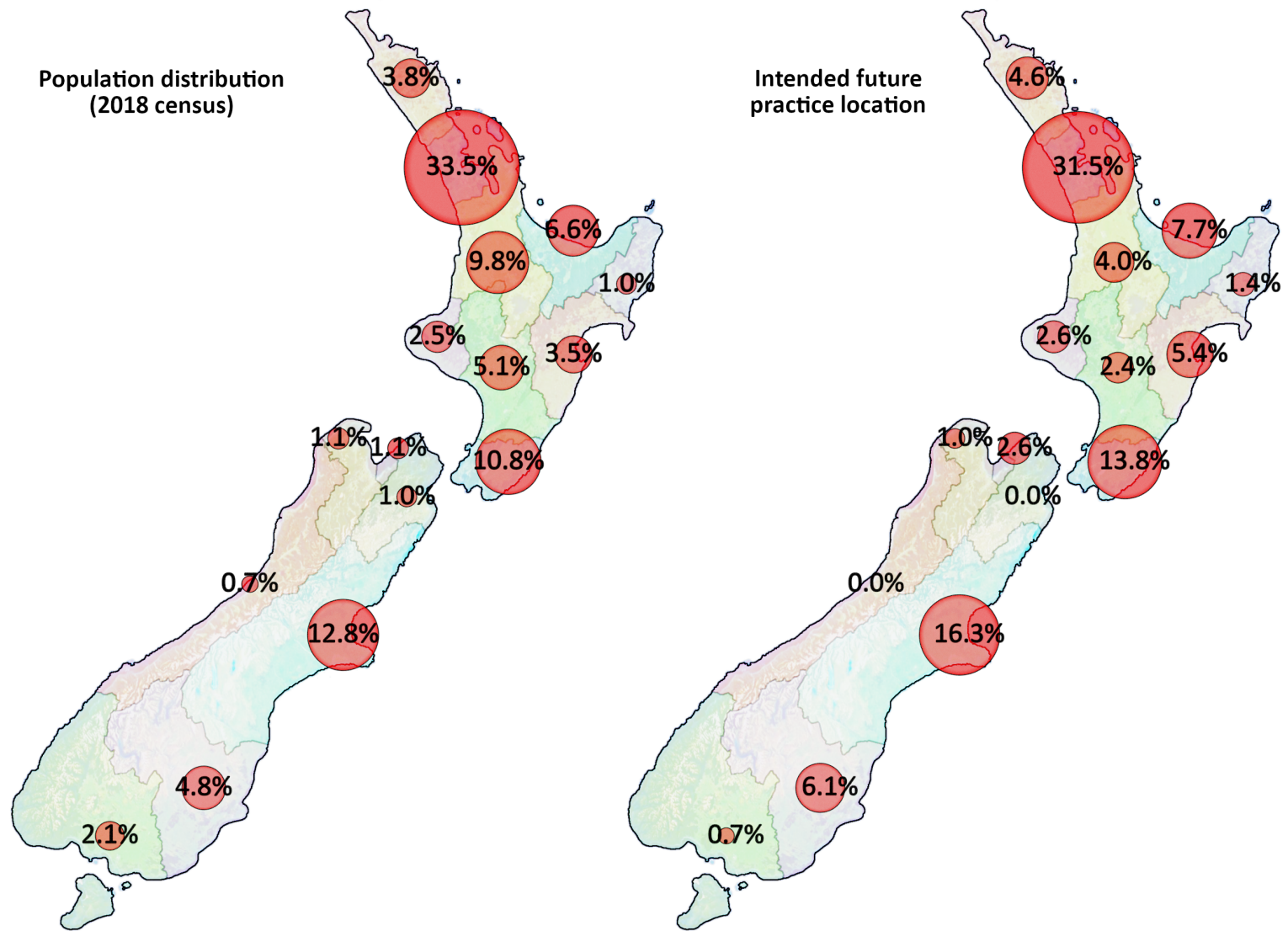
† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

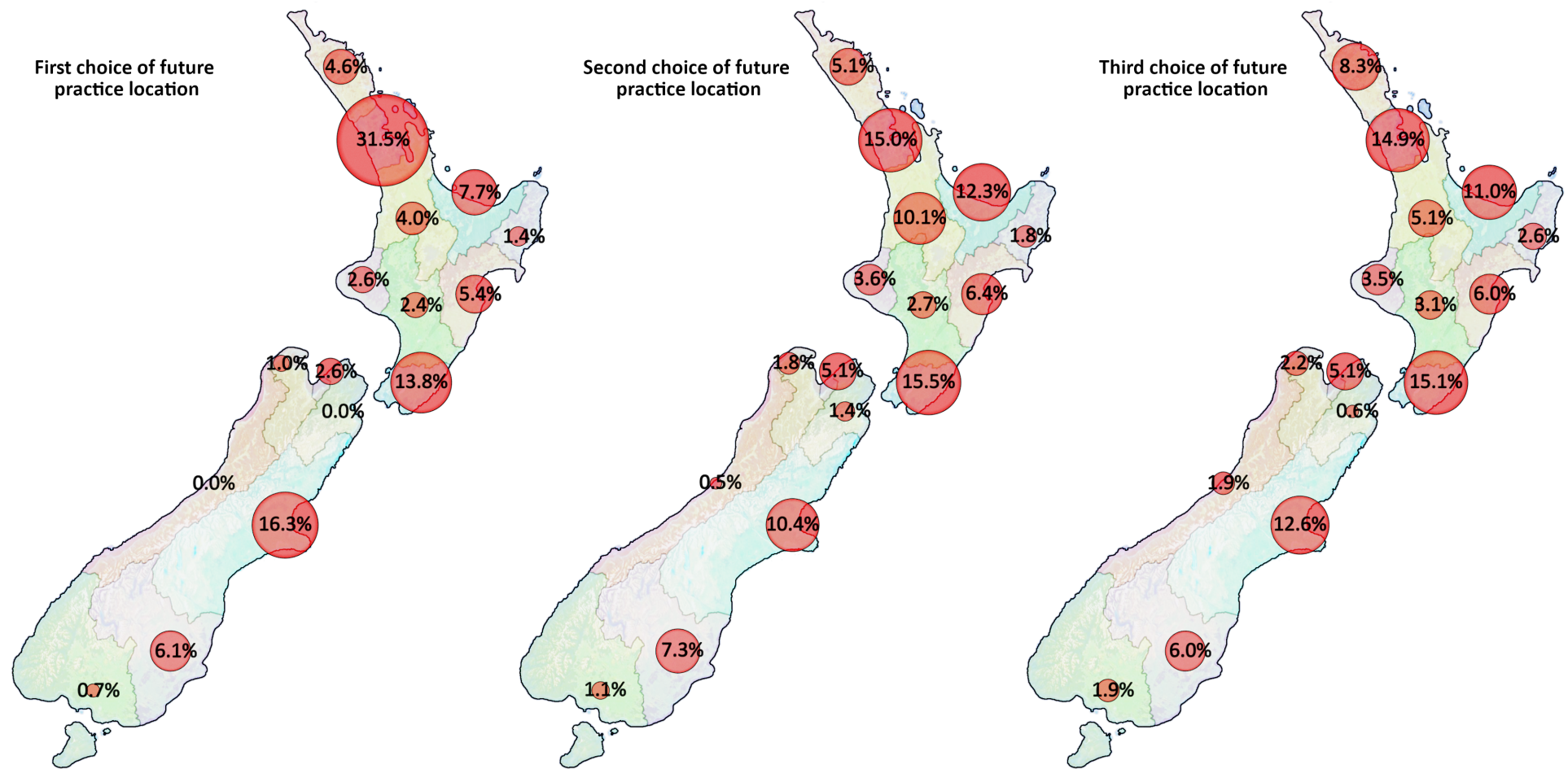
**Table 64.** First, second, and third preferences of region of future practice (all cohorts, ordered by first preference)

Preferences for region of future practice	Total		
	n = 482	n = 410	n = 363
	1 <sup>st</sup> Pref	2 <sup>nd</sup> Pref	3 <sup>rd</sup> Pref
Auckland	26.7%	12.4%	12.4%
Canterbury	15.5%	9.5%	11.6%
Wellington Region	13.0%	15.3%	14.0%
Bay of Plenty	6.8%	11.7%	9.1%
Otago	5.6%	7.3%	5.8%
Hawke's Bay	5.0%	6.6%	5.8%
Northland	4.3%	3.6%	6.6%
Taranaki	3.1%	2.9%	3.3%
Waikato	2.5%	8.8%	4.1%
Nelson	2.5%	5.1%	5.0%
Manawatu-Wanganui	2.5%	2.2%	3.3%
Gisborne	1.2%	1.5%	2.5%
Tasman	1.2%	1.5%	1.7%
Taupo	0.6%	1.5%	
Southland	0.6%	0.7%	2.5%
West Coast		0.7%	1.7%
Marlborough		0.7%	0.8%
Country other than New Zealand	8.7%	8.0%	9.9%

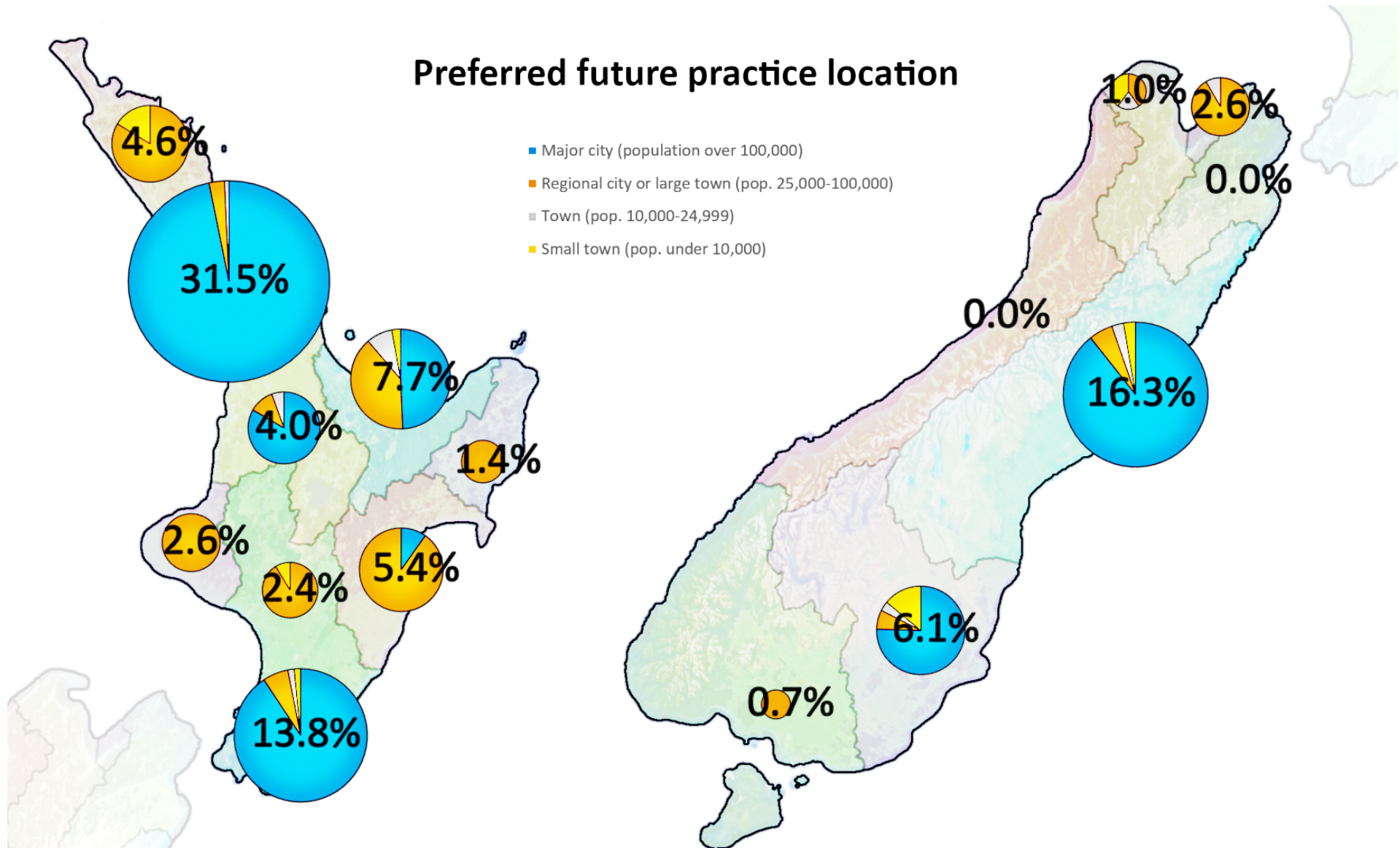
Background shading increases with increasing percentage of column total.



**Figure 13.** Geographical distributions of population (2018 census), and of first preference of intended future practice location. These values have been corrected for response rate.



**Figure 14.** Geographical distributions of first, second and third preference of future practice locations. These values have been corrected for response rate.



**Figure 15.** First preference of intended future practice location, and preferred population of geographical location. These values have been corrected for response rate.

## 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 65.** Factors influencing choice of specialty (ranked by Total column)

Factor influencing choice of specialty	Survey year							
	2019†		2020		2021		Total	
	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank	% Sig.	Rank
Atmosphere / work culture typical of the discipline	75.0%	1	76.6%	1	77.3%	1	76.5%	1
Self-appraisal of own skills / aptitudes	72.2%	3	76.6%	2	74.2%	3	74.7%	2
Interest in helping people	75.0%	2	70.3%	3	74.2%	4	72.9%	3
Influence of training experiences as a doctor (e.g., mentors / consultants)	66.7%	6	68.8%	6	77.3%	2	71.7%	4
Work experience since graduation	61.1%	8	68.8%	7	74.2%	5	69.3%	5
Intellectual content of the specialty	69.4%	5	68.8%	5	68.2%	6	68.7%	6
Perceived opportunity to work flexible hours	69.4%	4	70.3%	4	65.2%	7	68.1%	7
Perceived amount of working hours	61.1%	7	64.1%	8	60.6%	8	62.0%	8
Type of patients typical of the discipline	58.3%	9	60.9%	9	57.6%	9	59.0%	9
Self-appraisal of own domestic circumstances	47.2%	12	54.7%	10	48.5%	11	50.6%	10
Opportunity for procedural work	50.0%	11	48.4%	12	50.0%	10	49.4%	11
Perceived job security	50.0%	10	48.4%	11	47.0%	12	48.2%	12
Experience of specialty as a medical student	36.1%	13	37.5%	15	43.9%	13	39.8%	13
Availability of a vocational training placement	36.1%	14	43.8%	13	36.4%	15	39.2%	14
Perceived career advancement prospects	30.6%	15	39.1%	14	34.8%	17	35.5%	15
Geographical location of most preferred specialty	27.8%	16	35.9%	16	36.4%	16	34.3%	16
General medical school experiences (e.g., mentors, discipline placements)	25.0%	17	29.7%	17	37.9%	14	31.9%	17
Number of years required to complete training	19.4%	18	25.0%	18	27.3%	18	24.7%	18
Opportunity for research and / or teaching	19.4%	19	25.0%	19	22.7%	19	22.9%	19
Perceived financial prospects	16.7%	20	21.9%	20	19.7%	20	19.9%	20
Perceived prestige of the discipline	11.1%	21	12.5%	21	12.1%	21	12.0%	21
Influence of parents / relatives	8.3%	22	7.8%	22	12.1%	22	9.6%	22
Risk of litigation and associated insurance costs	5.6%	23	6.3%	23	3.0%	24	4.8%	23
Financial costs of vocational training	2.8%	25	4.7%	25	4.5%	23	4.2%	24
Financial costs of medical school education and / or debt	2.8%	24	4.7%	24	3.0%	25	3.6%	25

Base: respondents who have not left the medical profession. Question response rate: 97.6%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three

## Comparison with EQ responses at Graduation

Where respondents had also completed an Exit Questionnaire (EQ) upon graduation from medical school, those responses were linked to the responses given for the PGY8 survey to observe the dynamics over the eight-year early career interval.

**Table 66.** Number of PGY8 respondents who also completed an Exit Questionnaire eight years prior

	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Responses linked to EQ	99	84.6%	168	86.2%	195	94.2%	462	89.0%

Base: all respondents.

**Table 67.** Number of PGY8 respondents with the same first preference of intended practice region at both EQ and PGY8

First preference of region of future practice remains unchanged	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes, it remains unchanged	42	48.3%	69	43.4%	93	50.8%	204	47.6%
No, it has changed	45	51.7%	90	56.6%	90	49.2%	225	52.4%

Base: respondents who responded to both PGY8 and EQ, and have not left medicine in PGY8. Question response rate: 94.7%

**Table 68.** Number of PGY8 respondents whose first preference of future practice region is one of their top three picks at EQ

First preference of region of future practice is one of the top three previously indicated at EQ	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes, first preference was previously indicated	60	69.0%	108	67.9%	123	67.2%	291	67.8%
No, first preference was not one previously indicated	27	31.0%	51	32.1%	60	32.8%	138	32.2%

Base: respondents who responded to both PGY8 and EQ, and have not left medicine in PGY8. Question response rate: 94.7%

† University of Otago data only in 2019.

**Table 69.** Number of PGY8 respondents with the same preference of population size of future practice location at both EQ and PGY8

First preference of population size of future practice remains unchanged	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes, it remains unchanged	57	63.3%	99	62.3%	108	61.0%	264	62.0%
No, it has changed	33	36.7%	60	37.7%	69	39.0%	162	38.0%

Base: respondents who responded to both PGY8 and EQ, and have not left medicine in PGY8. Question response rate: 93.5%

**Table 70.** Direction of change of intended population size for PGY8 respondents whose preference has changed since EQ

Change of intended population size	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Preference changed towards a larger population centre	27	81.8%	39	72.2%	39	65.0%	105	71.4%
Preference changed towards a smaller population centre	6	18.2%	15	27.8%	21	35.0%	42	28.6%

Base: respondents who changed intended population size between PGY8 and EQ, and did **not** indicate "Not applicable"

**Table 71.** Number of PGY8 respondents with the same first preference of future medical specialty at both EQ and PGY8

First preference of intended medical specialty remains unchanged	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes, it remains unchanged	27	32.1%	75	47.2%	81	46.6%	183	43.9%
No, it has changed	57	67.9%	84	52.8%	93	53.4%	234	56.1%

Base: respondents who responded to both PGY8 and EQ, and have not left medicine in PGY8. Question response rate: 92.1%

† University of Otago data only in 2019.

Symbol ..C indicates suppression of frequencies less than three



**Table 72.** Number of PGY8 respondents with the same first preference of future medical specialty at both EQ and PGY8, that **had decided** upon their specialty preference at EQ

First preference of intended medical specialty remains unchanged	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes, it remains unchanged	9	50.0%	36	57.1%	39	52.0%	84	53.8%
No, it has changed	9	50.0%	27	42.9%	36	48.0%	72	46.2%

Base: respondents who were decided upon their intended specialty at EQ, and have not left medicine in PGY8. Question response rate: 92.9%

**Table 73.** Number of PGY8 respondents with the same first preference of future medical specialty at both EQ and PGY8, that **had not decided** upon their specialty preference at EQ

First preference of intended medical specialty remains unchanged	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
Yes, it remains unchanged	18	27.3%	39	40.6%	42	42.4%	99	37.9%
No, it has changed	48	72.7%	57	59.4%	57	57.6%	162	62.1%

Base: respondents who were not decided upon their intended specialty at EQ, and have not left medicine in PGY8. Question response rate: 91.6%

**Table 74.** Which preference of specialty at EQ is the first preference at PGY8 for respondents that **had not decided** upon specialty at EQ

Which EQ preference is first preference at PGY8	PGY8 Survey year							
	2019†		2020		2021		Total	
	n	%	n	%	n	%	n	%
First preference at EQ	18	27.3%	39	40.6%	42	42.4%	99	37.9%
Second preference at EQ	12	18.2%	12	12.5%	18	18.2%	42	16.1%
Third preference at EQ	6	9.1%	6	6.3%	9	9.1%	21	8.0%
None of the three preferences indicated at EQ	30	45.5%	39	40.6%	30	30.3%	99	37.9%

Base: respondents who were not decided upon their intended specialty at EQ, and have not left medicine in PGY8. Question response rate: 91.6%

† University of Otago data only in 2019.

## 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 1, 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 75.** Number of respondents by university

Medical School/Programme	Survey year							
	2019		2020		2021		Total	
	n	%	n	%	n	%	n	%
University of Auckland	-	-	63	32.3%	81	39.1%	144	27.7%
University of Otago	117	100.0%	132	67.7%	126	60.9%	375	72.3%
<b>Total responses</b>	<b>117</b>	<b>100.0%</b>	<b>195</b>	<b>100.0%</b>	<b>207</b>	<b>100.0%</b>	<b>519</b>	<b>100.0%</b>

### 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 2013 cohort, with a greater proportion of male non-responders. The ethnic identity composition of the two groups also varied significantly.

**Table 76.** Respondents/non-respondents by gender

Gender	Responders <sup>†</sup>		Non-responders		Total	
	n	%	n	%	n	%
Female	321	62.0%	285	50.7%	606	56.1%
Male	197	38.0%	277	49.3%	474	43.9%

<sup>†</sup>Numbers differ from those of Table 2, which only includes respondents who answered the gender question in this survey. Table 76 is compiled from medical school data.

**Table 77.** Respondents/non-respondents by ethnic identity

Gender	Responders <sup>†</sup>		Non-responders		Total	
	n = 519		n = 561		n = 1080	
	n	%	n	%	n	%
Māori	42	8.1%	36	6.4%	78	7.2%
Pacific people	15	2.9%	36	6.4%	51	4.7%
New Zealand European	345	66.5%	198	35.3%	543	50.3%
Other	173	33.3%	322	57.4%	495	45.8%

<sup>†</sup>Numbers differ from those of Table 5, which only includes respondents who answered the ethnic identity question in this survey. Table 77 is compiled from medical school data, and as such may not match respondents' current ethnic identity at the time of the survey.

Symbol ..C indicates suppression of frequencies less than three

## Appendix B: Method

In 2019, the University of Otago conducted the first survey of doctors eight years after graduation from medical school. From 2020 onwards, both University of Auckland and University of Otago medical graduates have been surveyed. The questionnaire has been designed to resemble the questionnaires for earlier timepoints (three- and five- years post-graduation questionnaires), but with a few changes to the available responses or exact question wording to some questions to reflect the amount of time the doctors have spent in their fields, and the progress through their specialist training or other career milestones that may have occurred in the interim.

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 Otago<sup>3</sup>. 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 two sets of data from each year were combined to form national data sets.

To protect respondents' data, Statistics New Zealand's guidelines have been adopted<sup>4</sup> 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, columns total to 100%.

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<sup>3</sup> 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

<sup>4</sup> Statistics New Zealand, 2013 Census confidentiality rules and how they are applied, <http://archive.stats.govt.nz/Census/2013-census/methodology/confidentiality-how-applied.aspx>, published 3/09/2013. Retrieved 30/07/2020