

Final Report

<u>م</u>







1**1** -

CRICOS Provider Number 00123M

Authors:

Prof Caroline Laurence, School of Public Health, The University of Adelaide Dr Scott Hanson-Easey, School of Public Health, The University of Adelaide Dr Taryn Elliott, GPEx Ms Ronda Bain, GPEx Ms Michelle Pitot, GPEx

January 2020

# Contents

Content	ts		3	
List of T	Fables		7	
List of F	igures		9	
Abbrev		11		
Acknow	nents	13		
Executiv	ve Sum	mary	15	
1.	Background			
	1.1.	Decision-making process	22	
	1.2.	Aim and Objectives	23	
2.	Study	Study Design		
	2.1.	Part 1 - Contextual analysis	25	
	2.2.	Part 2 - Perspectives of general practice as a career	26	
	2.3.	Triangulation of results	26	
	2.4.	Ethical Approval	27	
3.	Contextual analysis - Literature review			
	3.1.	Personal characteristics	29	
	3.2.	Professional/work characteristics	30	
	3.3.	Training experience		

		4.3.2.	Part-time trainees				
		4.3.3.	Female vocational trainees	45			
		4.3.4.	SA AGPT Program Registrars	45			
		4.3.5.	2020 SA AGPT program cohort				
		4.3.6.	AGPT Registrars	52			
	4.4.	Summa	ary of environmental scan	53			
5.	Cont	extual an	alysis - Stakeholder discussion				
	5.1.	Introdu	uction	55			
	5.2.	Stakeh	older Discussion	56			
		5.2.1.	Medical school training	57			
		5.2.2.	Prevocational training				
		5.2.3.	Vocational training				
		5.2.4.	General practice	61			
	5.3.	Summa	ary of stakeholder discussion	63			
6.	Focu	ocus groups on perceptions of rural general practice and general practice					
	6.1.	Metho	ds	65			
		6.1.1.	Selection and recruitment of participants	65			
		6.1.2.	Approach to analysis	66			
		6.1.3.	Data treatment	66			
	6.2.	Results	S				
		6.2.1.	Pivot-Points: Experiential Decision-making	68			
		6.2.2.	Perceptions of training and working as a rural GP	69			
		6.2.3.	Perceptions of working and training as a GP (metropolitan)	73			
		6.2.4.	How to attract metropolitan and rural GPs	78			
	6.3.	Summary of focus groups					
7.	Surv	vey of final year medical students					
	7.1.	Metho	ds				
	7.2.	Results	S				
		7.2.1.	Respondent characteristics	83			
		7.2.2.	Training experience				
		7.2.3.	Career intentions				
		7.2.4.	Factors influencing medical specialty choice				
		7.2.5.	Attitude and perceptions of rural general practice and general practice				
		7.2.6.	Communication about rural general practice and general practice	96			
	7.3.	Summa	ary of final year medical student survey				
8.	Key i	messages	and opportunities from the study				

## List of Tables

Table 1: Summary of factors found to be influencing a career in general practice either positiv negatively	ely or 34
Table 2: Questions considered by the stakeholders	56
Table 3: Demographic characteristics of participants	66
Table 4: Characteristics of respondents (n=57)	84
Table 5: Medical school training experiences (n=57)	85
Table 6: Career intentions (n=57)	86
Table 7: Importance of factors when deciding on a specialty (n=57)	88
Table 8: Perceptions of rural general practice compared with other specialities (n=57)	91
Table 9: Perceived advantages of rural general practice	92
Table 10: Perceived disadvantages of rural general practice	93
Table 11: Perceptions of general practice compared with other specialities (n=57)	94
Table 12: Perceived advantages of general practice	96
Table 13: Perceived disadvantages of general practice	97
Table 14: Communication about general practice (n=57)	97

Figure 28: Training terms undertaken by AGPT program registrars prior to entering the program, Australia, 2016-2018, AGPT National Registrar Survey52	
Figure 29: Timing of decision to become a GP specialist, Australia, 2017-2018, AGPT National Registrar Survey	
Figure 30: Thematic map of themes and sub-themes67	
Figure 31: Important decision-making factors by medical students who had chosen rural general practice versus another specialty (n=26)	1
Figure 32: Comparision of perceptions (strongly agree/agree) of rural general practice by medical students who had chosen general practice or rural general practice versus another specialty (n=26)	)
Figure 33: Comparision of perceptions (strongly agree/agree) of general practice by medical students who had chosen rural general practice or general practice versus another specialty (n=26) 95	,
Figure 34: Summary of the key outcomes of the study105	

## Abbreviations

Opportunities were also identified which draw on suggestions from the participants themselves as well as arising from a synthesis of the results. Opportunities identified by the participants include:

Create more flexible work arrangements including job sharing

This idea addresses the concern that rural training and general practice can be socially and professionally isolating. Having a peer to work alongside in a rural setting could alleviate the sense of isolation and overburdening responsibility discussed in the focus groups. It was also suggested that job-sharing could involve fly-in-fly-out arrangements. This would involve GPs working, for instance, on a week-on-week-off shift arrangement, affording a continuum of care for the community, but allowing the GP to remain connected to their social networks.

#### Promote rural general practice early in medical school

Many participants noted that rural general practice had much to recommend it, and a more systematic introduction to the specialty could enhance its competitiveness in the specialty decision-making process. For some, this also included a more significant grounding in rural general practice work. Better communication in medical school of the realities and opportunities of training and working rurally was considered worthwhile. This aligns with feedback from the survey, which indicated a number of respondents had not received communication about general practice.

#### Review rural placement process

Some participants felt a rural general practice training placement that was in a single rural town could be beneficial. In addition, giving more choice over rural placement locations and reducing the number of towns in which registrars needed to work, were both considered important facets of improving rural general practice recruitment. This is a perspective of some participants and it should be noted that this does not consider the equity of distribution of workforce across rural and remote South Australia, or the needs of the GPs, general practices, hospitals or rural communities. While this model may not be

Improve information regarding support for partners.

For participants with partners, a chief barrier to going rural was the problem of what their partner was going to do for work. Participants were unaware of support for partners to find work and suggested that an agency be set up to support partners. It was thought this barrier might be partially remedied by the job-sharing and fly-in-fly-out strategy already discussed.

In addition to the opportunities provided directly from the focus group participants, a number of additional opportunities emerge from a synthesis of all data. These include:

Develop strategies to change messaging around negative perceptions of general practice (e.g. professional and social isolation; status of general practice; "women's work", remuneration etc);

Reinforce the positive aspects of rural general practice through messaging, especially those that are key decision-making criteria for specialty choice (e.g. an interesting specialty, with diverse career opportunities, offering challenging work, with a procedural component, having a mix of practice and hospital work, and giving a sense of agency);

Work towards a coordinated approach to messaging about rural general practice and training that provides a clear message and avoids confusion;

Build resilience and skills in medical students and prevocational rotations so trainees feel more confident to practise rurally;

Significantly increase the number of quality general practice placement opportunities – with particular emphasis on prevocational years to improve confidence for entering rural practice;

The PGPPP model should be considered in developing prevocational rural general practice placement opportunities, ensuring there is a clear linkage between the prevocational doctors and the RTO;

Manage ongoing quality placements which reinforce positive elements of general practice, within both medical school and prevocational years;

Prioritise rural general practice placements for those who have stated an intention to work rurally in the future.

Use rural exposure to provide the opportunity to build agency<sup>1</sup> and develop confidence and skills;

Share the outcomes of

### Conclusion

This project has drawn together findings from a contextual analysis, focus groups and a survey to better understand the perceptions of rural general practice and general practice in comparison to other specialties, and the factors that influence specialty decision-making for medical students, junior doctors and specialists in training. Triangulation of results across the project showed strong agreement, which assists to strengthen the overall key messages and combat the limitations of individual study parts. The final model of specialty decision-making highlights the important contextual information, experiences and messaging, perceptions and decision-making criteria being used to inform specialty choice. This information can be used to understand why applications to the rural pathway, and general practice training more broadly, are decreasing. Finally, the opportunities presented should be used to generate discussion and inform future strategy.

## 1. Background

Many countries are currently facing a shortage of general practitioners (GPs). In Canada, more than 4.7m people (15.3% of Canadians) in 2017 reported not having a regular general pracitioner<sup>1</sup>, while in the UK there has been a 1.1% decline in the number of full time equivalent GPs between 2017 and 2018. This resulted in a promise by the UK government to recruit an additional 5000 GPs before 2020<sup>2</sup>. In the US, there is a projected shortfall of up to 43,000 family care physicians by 2030<sup>3 4</sup>. These shortages are in part driven by a decrease in interest in general practice as a specialty choice for medical students and junior doctors, partly by GPs leaving the specialty and partly by demand for general practice services.

In 2014 the General Medical Council in the UK reported a 15% fall in applications for general practice training<sup>5</sup> and while recruitment to general practice training has now risen, some areas, such as the north east region, north England and Scotland, are unable to fill their allocated positions<sup>6</sup>. In the US, general practice training numbers have been decreasing<sup>7</sup> and despite improvements in applications to general practice residency programs only 96.7% of positions were filled<sup>8</sup>.

In Australia, we have seen a 22% decrease in eligible applications to the AGPT program between 2016 and 2019, with not all 1500 places filled in 2018 and 2019<sup>o</sup> (Figure 1). In 2018, 97% of positions were filled but this decreased to 96% in 2019.

Figure 1: AGPT program positions, Australia, 2016-2019

In South Australia (SA), the proportion of filled

Figure 2: SA AGPT program positions, 2016-2019



We have seen a 30% decline in SA medical graduates entering the AGPT program in SA between 2016 and 2019 (Figure 3). While the proportion of filled positions in the SA AGPT program by SA medical graduates has remained at 52% over the last four years (Figure 3), the overall numbers are declining as the number of filled positions have also declined.

Figure 3: General practice intake by SA medical graduates, 2016-2019

As well as an overall decline in SA of medical graduates entering the SA AGPT program, there has also been significant changes in the numbers entering the different pathways (Figure 4). Over the last four years, there has been a 60% decline in the proportion of SA medical graduates entering the rural pathway. In 2016, 40% of rural pathway filled positions were accepted by SA medical graduates compared to 23% in 2019. This decline is not seen with the general pathway, with the proportion of general pathway positions filled by SA medical graduates being 77% in 2018 and 77% in 2019, an increase from 60% in 2016 (

satisfaction<sup>14</sup>; and medical breadth<sup>30 44</sup>. Negative perceptions about general practice have also been reported as influrg026so been



Figure 5: Summary of the decision-making process and influencers

### 1.2. Aim and Objectives

The project has explored the perceptions of rural general practice and general practice more broadly, and the factors that influence career decision-making for medical students, prevocational trainees and vocational trainees. The project focussed on rural general practice, and the broader specialty of general practice, both of which are important to understand in order to inform future rural workforce planning and attract more applicants to rural general practice training.

Objectives

- 1. To examine the characteristics of both rural and general pathway applicants to general practice training in SA in the last 5 years.
- 2. To explore what contextual factors may be influencing the perception of rural general practice and general practice more broadly as a career for doctors.
- 3. To understand the perceptions of rural general practice and general practice by medical students, prevocational trainees, general practice registrars and other vocational trainees.
- 4. To identify what factors influence specialty decision-making for medical students, and prevocational trainees.
- 5. To identify what factors influenced specialty decision-making for general practice registrars and other vocational trainees.
- 6. To determine what factors influence the choice to work in rural general practice for medical students, prevocational trainees, general practice registrars and other vocational trainees.

## 2. Study Design

A mixed methods approach was used in this study design. This study had two parts with the study objectives aligned to each part. Part 1 focused on the contextual factors that may be impacting on rural general practice and general practice as a specialty choice (Objectives 1-2) while Part 2 focused on exploring the perceptions of rural general practice and general practice more broadly by medical students, prevocational and vocational trainees (Objectives 3-6). This section provides an overview of the study design with details on the methods reported in the relevant sections of the report.

## 2.1. Part 1 - Contextual analysis

For this part of the study, three distinctive pieces of work were undertaken: a literature review; an environmental scan, including data analysis of the changes in the profiles of medical students and prevocational and vocational trainees; and input from key stakeholders.

#### Literature review

A review of the recent literature on medical specialty career decision-making was undertaken to

## 2.2. Part 2 - Perspectives of general practice as a career

To gain an understanding of the perceptions of general practice and the factors that influence specialty choice by medical students and prevocational and vocational trainees, qualitative and quantitative data were collected.

A qualitative approach was used to explore the perceptions of general practice as a career for those yet to make a specialty choice and those that have already made their choice. This was done through a series of focus groups. The focus groups represented different parts of the medical training pipeline - medical school, prevocational training and vocational training.

The focus groups explored part

Figure 6: Triangulation of the results from the project to identify key messages and opportunities

### 2.4. Ethical Approval

Ethics approval was obtained from the SA Health and Wellbeing Human Research Ethics Committee (HREC/19/SAH/63) and the University of Adelaide Human Research Ethics Committee (ID: 33993).

In addition to the ethics approval, Specific Site Assessment approval was obtained for the following sites:

Department of Health and Wellbeing, (HREC/19/SAH/63)

Flinders Medical Centre, SALHN (SSA/19/SAC/222)

Lyell McEwin Health Services, NALHN, (Ref: 19-129-Laurence/19-130-Laurence)

Modbury Hospital, NALHN, (Ref: 19-129-Laurence/19-130-Laurence)

Mt Gambier and District Health Services, Rural Support Services (SSA/19/SAH/91)

Royal >5nBTw] T0.3g Hbi 0.3urence)

## 3. Contextual analysis - Literature review

Research has identified several factors that influence specialty career choice, and these can either be positive or negative influences, depending on the specialty of interest. The factors can be broadly categorised into four groups – personal characteristics, professional/work characteristics, training experience and lifestyle. Many of these factors are similar - whether reported by medical students, junior doctors or those doctors who have already made a specialty decision. In addition to influencing factors, a body of research reports on the perceptions of different specialties, which can affect specialty choice. The evidence has been gathered primarily using surveys, with some qualitative research. This review presents the research on the factors influencing career specialty choice, with a focus on general practice, and includes literature published between 2010 and 2019. It also presents the findings of research on the perceptions of general practice by medical students and junior doctors.

### 3.1. Personal characteristics

Gender has been shown to influence choice of specialty. Women are more likely to choose certain specialities such as general practice, while men a

K um wenda et al's<sup>67</sup> study of specialists in training in the UK found that students entering medicine as school leavers (who were thus younger) were more likely to choose surgical specialities than general practice, compared with mature students.

Age and gender have also been shown to be associated with certain specialities, and to be associated with factors considered when making a career choice. Cleland et al<sup>68</sup> found that female final year medical students in the UK valued excellent working conditions more highly than male students and older students valued them less than younger students. Several Canadian studies also support this finding. A Canadian study on medical students at the University of Alberta found that those who preferred general practice as a career were older, female and previously lived in a rural location<sup>45</sup>. Two national surveys of Canadian medical students found that those preferring general practice were more likely to be female<sup>47</sup>, older<sup>47</sup> <sup>69</sup> and engaged, married or living with partners<sup>47</sup> <sup>69</sup>.

A few studies investigated the role of socioeconomic background, schooling and parents' education level with different specialty choices. Rodriguez Santa and Chalkey<sup>46</sup> reported that doctors in specialty training who had come from a higher socioeconomic background and had parents with tertiary education were less likely to be in general practice training. While those who had attended independent schools were more likely to be training for other surgical and medical specialities<sup>46</sup>. Kumwenda et al<sup>67</sup> found that trainees who came from families where no parent was educated to a degree level were more likely to choose general practice than other medical specialities. Gale et al<sup>18</sup> found that the medical school and foundation (i.e. intern) school attended were associated with the odds of applying to general practice training and may reflect variations in curricula and culture of medical schools. Scott et al's<sup>69</sup> study of Canadian medical students also found that there was an association between selecting general practice as a speciality and having parents without a postgraduate university education.

Having family or friends in a particular specialty could also influence specialty choice. Deutsch et al<sup>66</sup> found that recently graduated medical students had a greater preference for general practice if they had family or friends in that specialty while le et al<sup>20</sup> found that having a physician parent was associated with Japanese medical students choosing general practice.

### 3.2. Professional/work characteristics

A number of professional and work factors have been identified as being influential in choosing a particular specialty career. These include the type of medicine, prestige and financial rewards, the type of patients seen by the specialty, and future opportunities.

Several studies have reported on the importance of the type of medicine and scope of practice in the decision-making process<sup>20 30 33 63 70 71</sup>. Merret et al<sup>33</sup>, Landstrom et al<sup>30</sup>, Roos et al<sup>65</sup>, Gill et al<sup>45</sup> and Deutsch et al<sup>72</sup> found that the medical breadth of general practice and being able to care from cradle to grave ,were seen as positive aspects of general practice by newly-qualified doctors and medical students. Clinical diagnostic reasoning and breadth of practice were also reported as important factors for choosing general practice, while mastering procedures were less likely to be associated with general practice aspirations, for final year medical students in Japan<sup>20</sup>. The desire for a varied scope of practice was found to be a predictor for choosing general practice training by Canadian medical students<sup>69</sup>. Several studies have reported the variety of the work as a positive influence on choosing general practice<sup>21 45 66</sup>. A Canadian study also found that a desire for a varied scope of practice was a predictor for medical students to practise in a rural location<sup>54</sup>. However, the job content of general practice has also been reported as a negative factor for choosing general practice<sup>27</sup>.

their exposure to general practice had been insufficient to consider general practice as a career option<sup>28</sup>.

The quality of the clinical placement could also influence specialty choice. Positive role models and authentic placements (defined as involving patient contact) could improve the attractiveness of a specialty<sup>35</sup>. Furthermore, Alberti et al<sup>12</sup> found a significant association between authentic general practice teaching at medical school and the proportion of UK junior doctors who entered general practice training. A study by Dale et al<sup>16</sup> on factors influencing career intentions in GP found that the quality of the general practice experience at an undergraduate, junior doctor and registrar level influenced personal career plans.

Several studies reported the link between exposure to rural general practice and interest in a rural career. Interest in rural general practice as a career was also found to be related to the length of the placement. A Queensland study found that time spent at the University of Queensland Rural Clinical School contributed the most to interest in a rural career, with general practice and emergency being the most preferred rural specialties<sup>43</sup>. O'Sullivan et al<sup>51</sup> also found that the length of rural immersion was associated with the odds of working in a rural area. Rural immersion of one to two or more years significantly increased the odds of working in a rural area relative to no rural immersion.

Data from the GPEx graduate tracking study supports the importance of rural training experience at a vocational training level, in influencing graduates to choose a career in rural general practice<sup>10</sup>. This study found that those with more full-time equivalent weeks spent in rural general practice placements were more likely to choose to practice rurally after graduation- with 20% of graduates working in rural areas having completed their training on the general pathway<sup>10</sup>. Thus, showing that we need to not only focus on attracting more graduates to rural general practice but also on their experiences during their AGPT program, which can positively influence a rural career.

### 3.4. Lifestyle factors

Flexibility and work-life balance were often reported as important influencing factors for those choosing general practice as a career choice. Spooner et al<sup>76</sup> found that among prevocational trainees in the UK, achievement of an acceptable work-life balance was such a strong objective when choosing a specialty that it could override other objectives. This was also reported in an Australian study<sup>40</sup> which found that it was influential in choosing general practice, and similarly New N3.04 TBT0.302 0.302 0.31 rg0.302 0.302 0.31 RG/F1 11.04 Tf412.78 557.11 Td[(a)11(lso f)-3(ou)8(n)-4(d t)13

rural area, they were more likely to choose general practice as a specialty choice<sup>62</sup>. This finding was also found for Canadian medical students<sup>45</sup> and recent graduates in Germany<sup>66</sup>.

## 3.5. Perceptions of general practice

In addition to the research on the factors influencing specialty choice among medical students and junior doctors, there is also research

## 4. Contextual analysis - Environmental scan

In this part of the report we outline the results of our environmental scan on the factors that may influence career choices in rural general practice and general practice more broadly. This scan includes an analysis of medical students, prevocational and vocational trainees training data, input from key informants and current aspects of the general practice landscape that may affect perceptions of rural general practice and general practice as a career option.

The aim of this part of the study was to understand the environmental factors that can influence medical specialty decision-making at each stage of the medical training pipeline from medical students to those working in their specialty (as illustrated in Figure 7). The individual factors that influence specialty choice are captured through the focus groups and survey and reported elsewhere in the report.

Figure 7: Schematic illustration of the training pipeline and influences of environmental and individual factors

The results of the environmental scan are presented for each stage of the medical training pipeline, commencing with a summary of changes within the environment, informed by research and input from key informants, followed by an analysis of training data which identifies trends that might influence the decision to choose a career in rural general practice and general practice. In presenting the training data, we also indicate the possible impact of a trend on the decline in AGPT program
commencing students. By 2016, the University of Adelaide had increased its proportion to 30% of commencing students and Flinders University had decreased to 25% of commencing students.

The effect of lower numbers of commencing students with a rural background from 2012-2015 is likely to be influential on the 2018-23 SA AGPT program intake and may partly explain the lower applications for the rural pathway. The increased number of commencing rural background students is likely to be reflected in the 2022-24 SA AGPT program intake, with potentially an increase in applications to the SA AGPT program rural pathway.

Figure 8: Number of commencing domestic students with a rural background by university, SA 2012-2018

## 4.1.3. Female students

Traditionally, general practice has been as an attractive option for female medical graduates due to its flexibility and compatibility with family life<sup>65</sup>. As a result, any changes in the number of female medical students may have a knock-on effect for applications to general practice vocational training. The proportion of female medical students in all Australian medical schools is presented in Figure 9. There is downward trend in the proportion of female graduates, with a 4% decline in the proportion of female domestic graduates between 2010 and 2017, and an 11% fall in female international graduates (Figure 9).

The effect of a decreasing number of female graduates from 2014 onwards may be influential on the 2017

subscription of CSP commencing places five years earlier and the return to the expected number of graduates from the allocated CSP places.

The projected number of domestic medical graduates is on a downward trend and the effect of lower projected graduates in 201

4.1.5.

The prevocational years are important in the specialty decision-making process as the trainees are employed for the first time in medicine and they are also exposed to different specialities<sup>92</sup>. As such they are the feeder years into specialty training. Therefore, understanding the characteristics of these prevocational trainees is important in identifying potential impacts on applications to general practice training and rural training.

For this analysis, data was obtained from the SA Medical Education and Training's (SA MET) annual reports on junior doctor allocation in South Australia for the commencing training years 2014-2018<sup>93-98</sup>.

## 4.2.2. Applications for PGY1 training positions

Applications and acceptance numbers for PGY1 training positions over the last six years are shown in Figure 13. Over this period, there has been a small decrease (6%) in total positions available in SA from a high of 278 positions in 2014 to a low of 250 in 2016, with 263 positions available in 2019. Throughout this period, all positions have been filled. However, more recently we are seeing a 28% drop in the number of eligible applications for these training positions. The large decrease in eligible applicants commenced in 2017 and continued in 2018 and 2019(Figure 13).

Figure 13: Applications to PGY1 training positions in SA, 2014-2019

Of the applicants who accepted intern positions in SA, the majority are from the SA medical schools, averaging 90% for the period 2014-2019 (Figure 14). This is a higher retention rate than the 82% reported overall for Australia in 2018.<sup>82</sup> Of the SA medical graduates accepting intern positions, the majority are in the Category 1 group (Commonwealth supported graduates from SA universities)<sup>98</sup> (

Figure 15

Figure 14: Number of acceptances for PGY1 SA training positions by university, 2014-2019

Figure 15: Number of acceptances for PGY1 SA training positions by SA medical graduates by

## 4.2.3. Applications for PGY2+ training positions

The number of PGY2+ level training positions available in SA has increased from 395 in 2014 to 494 in 2019 (Figure 16). At the same time there has been a decrease in the number of eligible applicants. The acceptance rate for these positions is lower than that found with PGY1 level positions, with unfilled positions in all years. Moreover, the number of unfilled positions has been increasing over time with the proportion of unfilled positions increasing from 7% in 2014 to 15% in 2019. This may reflect the increase in training positions combined with a decline in eligible applicants.

The acceptance rate of those offered positions varies slightly across the period analysed, with 86% of offers accepted in 2019 while only 79% of offers were accepted in 2017 and 2014.

The large increase in unfilled places seen in 2017 may have contributed to the decline in the SA AGPT program intake in 2018 and with the continued proportion of unfilled places in 2018 (11%) and 2019 (4%), it is likely to continue to affect the SA AGPT program intakes for 2019 and 2020.



Figure 16: Applications to PGY2+ training positions in SA, 2014-2019

## 4.3. Vocational training

## 4.3.1. Introduction

There are currently 24 specialty or vocational training programs in Australia with varying lengths of training and entry requirements<sup>82</sup>. Prevocational trainees enter these specialist training programs from PGY2 onwards through competitive entry processes and the length of the training programs ranges from three to seven full time years<sup>86</sup>. Over the last nine years there has been a 16% increase in basic trainees entering vocational training programs, from 5057 in 2010 to 5858 in 2018<sup>83 87</sup>.

Those entering the AGPT program have tended to enter earlier in their postgraduate year levels and GP vocational training was also seen as an attractive specialty for females due to its flexibility as a career and in the training program<sup>99</sup>. However, changes to other specialty training programs resulting in increased flexibility have occurred over the last several years and thus these other specialty programs may now be competing for trainees who would have traditionally chosen general practice as their specialty choice. Additionally, the profile of those entering GP training may be changing alongside changes in popularity of other specialities. Those specialty programs seen as attracting similar trainees to those choosing general practice are paediatrics and child health, anaesthetics and emergency medicine.

This section presents data on advanced trainees in specialty training programs to identify any trends that may be impacting on applications to general practice vocational training and is sourced from the MET and MTRP reports<sup>82-88</sup>. Advanced trainees are those who have been accepted into their specialty program after completing basic training. The AGPT program does not follow this structure and so all those enrolled in this program equate to advanced tra

## 4.3.3. Female vocational trainees

In SA, the proportion of female advanced trainees enrolled in the AGPT program has been decreasing. In 2010 68% of SA advanced trainees were female and this has dropped to 60% in 2018 (Figure 18). What is clear from Figure 18 is the preference among female graduates for paediatrics training in SA (90% of all advanced trainees in 2018), but also a growing number of females in adult medicine, almost matching the proportion found in the SA AGPT program in 2018 (58% of all advanced trainees). These trends suggest specialties other than general practice are now seen as attractive options for female trainees.



Figure 18: Proportion of female advanced trainees, selected specialties, SA, 2010-2018

## 4.3.4. SA AGPT Program Registrars

Data on the registrars commencing their AGPT program in SA over the last five years was analysed to identify any changes in the commencing cohorts over this time that may help explain the changes that occurred in applications to training in 2018 and 2019. This data was provided by GPEx. It should be noted that data for the 2020 cohort is incomplete as the selection process was still underway at the time of this report. Proportions cited for 2020 should be viewed with the understanding that there may be fluctuation depending on the demographics of the final intake. Additionally, GPEx surveyed those who had been accepted to begin general practice training in 2020 regarding their rural experience and reasons for choosing the rural pathway.

Data are presented as a proportion of the respondents, rather than total numbers, so that changes in characteristics can be more easily identified. This is because proportions are comparable across years, even withstanding the decline in applications.

The trend of a decreasing proportion of females in the AGPT program seen in the advanced trainee data is also seen in the AGPT program commencing cohort analysis (Figure 19). Over the last five

Figure 20: SA AGPT program commencing cohorts by age, 2016-2020\*

The proportion of commencing cohort from SA Universities has remained fairly stable over the last five years, with a 10% increase between 2016 and 2020 (Figure 22). Also, the proportion of the commencing cohort from other Australian universities has increased from 23% of the cohort in 2016 to 28% in 2020. However, there has been a large change in the proportion commencing registrars from overseas universities, a 39% decline between 2016 and 2020. It should be noted that as selection for 2020 has not yet been finalised, this decline may not be as significant.

The two largest groups entering general practice training are those who apply in the PGY1 year and those who apply four or more years after completing medical school training (Figure 23). However, over the last five years there has been a decrease in the proportion of the commencing cohort entering general practice training in later postgraduate year levels, from 43% in 2016 to 36% in 2020. In comparison, the proportion of the commencing cohort who applied to GP training in their PGY1 year has remained stable, 31% in 2016 and 35% in 2020. There has also been an increase in the proportion of the commencing cohort applying in the PGY3 level along with a decline in the proportion of commencing registrars applying in PGY2 (-29%) (Figure 23).



Figure 22: SA AGPT program commencing cohort by university location, 2016-2020\*

\* Selection for 2020 is still underway and the 2020 commencing cohort only includes those who have accepted a position as of November 2019



Figure 23: SA AGPT program commencing cohort by PGY application year, 2016-2020\*

\* Selection for 2020 is still underway and the 2020 commencing cohort only includes those who have accepted a position as of November 2019

We have also observed fluctuating numbers of applicants entering the SA AGPT program with rural clinical school experience with 19 in 2019, compared with 27 in both 2018 and 2017 (Figure 24). From 2017-2019, a larger number of the commencing cohort with rural clinical school experience entered the general pathway. This data should be monitored, and opportunities taken to ensure that there is a clear pathway from rural clinical school into rural general practice training.

Figure 24: AGPT program commencing cohort by Rural Clinical School experience and training pathway, 2016-2019



#### 4.3.5. 2020 SA AGPT program cohort

Nearly two-thirds of the 2020 commencing cohort surveyed had some type of rural exposure prior to applying for the AGPT program (Figure 25). The most common exposure was being part of a rural health club (33%), rural clinical school experience (25%) and having a bonded medical place (22%). Only 11% of the cohort had experienced an internship in a rural location, while 18% of the cohort had a rural background (Figure 25).

Interestingly, there was very little difference in the proportion of the cohort that had any rural exposure between those enrolled /F1 110008873 w7h0.302 0.302 0(G)3(P)4(T m)b4(enS70.3028:918 Tdyh)6(e )] T

Figure 26: Types of rural exposure experienced by training pathway, 2020 commencing cohort, GPEx, SA

The 2020 SA AGPT

Figure 29: Timing of decision to become a GP specialist, Australia, 2017-2018, AGPT National Registrar Survey

## 4.4. Summary of environmental scan

The environmental analysis and analysis of trainee data along the training pipeline identified several potential trends that may be contributing to the decline in applications to general practice training and the rural pathway in recent years. These are summarised below.

Changes in the profiles of medical students in recent years, particularly the decline in the proportion of female graduates.

A decline in the rankings for general practice as the preferred specialty for medical graduates and the increase in preferences for other specialities such as paediatrics.

While there is a high retention of SA medical graduates undertaking their PGY1 training in SA, there is a trend for PGY2 training positions in SA to remain unfilled, and a decline in the proportion of SA medical graduates accepting these positions.

For general practice training in SA, we have seen a decline in the last five years of females, overseas trained doctors and older trainees entering training and associated with this, a decline in the trainees applying in later PGY years.

Increased competition from other specialties for trainees, reflected in the increased proportion of part-

# 5. Contextual analysis - Stakeholder discussion

## 5.1. Introduction

Medical specialty choice can be influenced by the perceptions of the specialty as a profession. For several years, the profession of general practice in Australia has been facing several challenges which can contribute to a negative perception of the specialty. Some of these challenges include:

*The freeze on Medicare fees*: This freeze on increases to the Medical Benefits Scheme schedule fees commenced in July 2014 and was scheduled until 2020. While the freeze was lifted in July 2019, the impact on general practice incomes was significant, particularly because this was not applied to other specialities. This freeze adds to the belief that general practitioners receive less remuneration than other specialities. This perception is support

geriatrics. The stakeholders commented that if general practice is in the top three specialty choices for medical students, students are not getting a lot of exposure during medical school. They get exposure to the different 'ologies' in the hospital setting but do not have a lot of exposure to general practice.

Changes in the medical program structure was seen as less of an impact on applications to general practice training, but there have been changes in assessment requirements for students to provide greater accountability. This places greater burden on the external supervisors and reduces their autonomy over how they assess a medical student. With increased burden, the sustainability of rural general practice supervisors to teach at all levels of the training pipeline was seen as potentially impacting on the student experience. There was seen to be a need to provide better support for supervisors so they can provide a great experience for the students, which then can become positive " chatter" among the medical student body.

When the Rural Clinical Schools started, the general practitioners, practice staff and communities went out of their way to make students feel welcome. Word got out that the doctors cared about the students and that they fostered a supportive environment. The model of support previously provided by the Divisions of General Practice has not been replaced and there was suspicion that this may now be occurring less often.

There is evidence supporting the premise that students who are involved in Rural Clinical Schools perform better during their exams. This coupled with the supportive, hands-on experience they receive, has made the Rural Clinical Schools very attractive for all medical students, and not just those intending to practise rural medicine.

5.2.2.

vocational training to facilitate the end to end management of the training and career advice.

Although PGPPP was financially beneficial for practices and hospitals it was not financially viable for the government. The GPs involved believe that the loss of PGPPP has had a significant impact on workforce, particularly rural workforce. It was felt that there is a lot of "good will" within the medical profession and that there may be an opportunity to contact practices

The stakeholders agreed that there was increasing competition from other specialities for trainees who would traditionally select general practice. For instance, paediatrics is moving to become more like general practice, offering flexibility and a similar scope of practice. The other advantage of non-general practice specialities, such as paediatrics, is the leave and other entitlements available through the hospital system, which trainees can also access during their training. It has been suggested that this be looked at for general practice vocational training in order to make general practice more competitive in this regard.

The data shows that there is an increase in part-time advanced trainees (both male and female) in paediatrics, which may indicate that doctors are choosing this specialty over general practice because of its flexible training options. There is also a notable rise in female advanced trainees applying to paediatrics. The number of female doctors applying to general practice dipped but now remains steady. In addition, the other specialties, such as paediatrics have crept into general practice territory. This specialty is becoming a competitor to general practice in many ways.

Emergency medicine also now has more part-time options, and applications to adult medicine are increasing. The medical student preference data also indicates that general practice has dropped by 5% and adult medicine has increased by 5%.

The introduction of the application fee for AGPT program may be a deterrent. It was thought that previously when doctors could apply to the AGPT program for free, they would become more excited about the prospect of general practice training the further they progressed into the application and selection process. They would then begin to see general practice as a viable option.

The stakeholders were of the opinion that the expansion of rural general practice training options may have led to some confusion for potential applicants about how to become a rural GP.

training. This may be attributed to a change in their opinion about their preferred scope of practice, flexibility or that they have failed their exams repeatedly. This results in doctors with a great deal of experience, with the potential for increased earnings and entitlements, but who then view general practice as an option that is not financially viable. This is a recent argument that has also been put forward by the RACGP and the Rural Health Commissioner, Emeritus Professor Paul Worley.

There is a cohort of GPs who have trained on the general pathway, but will choose to practise rurally after graduating. In addition, there are registrars who are on the general pathway, who want to train in a rural setting for a portion of their training, but cannot commit for the full portion. It is important that we do no

given to declining application numbers and the general practice shortage. Instead of valuing the profession, the public actually expect more of the medical profession than they have done in the past. Rural communities do not tend to undervalue their GPs, but there is a perception that they 'own' the GPs.

There is a negative message being broadcast to the public regarding the conditions of rural general practice, including the difficulty around rural doctors struggling to renew their contracts.

The messages being delivered by the media have a part to play in behavioural economics, which in turn affects medical specialty decision-making. Several key players in the medical

## 5.3. Summary of stakeholder discussion

Early general practice exposure was seen as critical. The stakeholders discussed a current lack of exposure to rural general practice and general practice more broadly at medical school and during prevocational training. The importance of good support within rural placements was also raised as well as the importance of rural experience within GP registrar

# 6. Focus groups on perceptions of rural general practice and general practice

To explore the current perceptions of rural general practice and general practice more broadly as a career, a series of focus groups

## 6.1.2. Approach to analysis

This study uses a critical realist<sup>110</sup> approach to enhance understanding of the factors impacting on medical specialty decision-making. Critical realism is a particularly useful theoretical approach for examining language used, understandings, attitudes and perceptions as they relate to everyday experiences. Such an approach to qualitative data gives important insights into a person's lived experience and the kinds of discourses, or narratives, which are socially shared to enable a person to make sense of, and make judgement upon, how they navigate the world and its institutions.

## 6.1.3. Data treatment

All focus groups were audio-

# Figure 30: Thematic map of themes and sub-themes



selection, training, support and monitoring of supervising GPs as the placement quality and approach to supervision appears discrepant across clinics. In addition, the quality of the placement may also be influenced by the type of patient exposure and experience within the clinic and town more broadly. The following extract bears this issue out.

Male: It's like when you have a placement like that that's when - like they're never going to think about GP ever again - or another one who was saying that - I'm pretty sure it's illegal what they were doing but they would have a nurse - him see a patient and the GP see a patient in a 20 minute appointment and then the GP would just go through - it wasn't even like true parallel consulting. They'd just like signoff on whatever the student did and then signoff with the nurse, so it was all his signature and his name and then just book - bill Medicare. So, when you hear stories like that it's like of course people have a bad opinion. I'm sure this happens in hospital stuff too to some extent but there's more oversight in hospitals. So, I figure like the two per cent of bad GPs just kind of ruin it for every other GP. So, I'm not particularly interested in GP but my mum's a rural GP physician in [overseas country]. My sister went to Adelaide Uni and now she's a rural GP obstetrician in [overseas country]. There's really good doctors out there but it's like there's just - some of them are just I think completely ruin it and there's very little oversight on which GPs get students I think. (MEDICAL STUDENT, FLINDERS UNIVERSITY)

#### 6.2.2. Perception

A rguably, for trainee GPs, envisaging a situation where one is professionally isolated and 'out of your depth' would reasonably elicit emotions of anxiety and, potentially, dread. As these participants note, the risk of 'doing something wrong' is amplified in a rural location because there are fewer peers to consult with. Indeed, this kind of experience on placement, is directly and causally linked to a choice to reject rural general practice as a specialty choice e.g. '..oh well, cross that one off'.

Compounding the perception that rural general practice is medically isolated, there is the popular

Male: Where - it's a rural regional centre so the hospital was run by GPs who have extra skills in anaesthetics and emergency. They not only run the emergency, but they run the ward, they run theatres, they virtually do everything. So, I think seeing what they were capable of and the huge scope of practice that they do, they're never bored in their work and they are probably some of the smartest doctors I've worked with because they do know everything about everything some of them. So yeah, working with them is what inspired me to stay in the country to do GP training. (RURAL PATHWAY GP REGISTRAR)

Female: So, I really, really, really love being able to have a puzzle and be part of that puzzle solving. Yes, sometimes it's like I don't know what this is. But being open to the patients, saying I will hold your hand in this system and walk with you, it's awesome. Sometimes you will get answers and sometimes you won't. But that journey is so invaluable. Sometimes, you know, someone will come in and you'll be the first doctor to pick up the MI or you'll be the first doctor who saw them with sepsis and you give them the resuscitation they would have received if they were living next to the big hospital. You see them being choppered off and sent back alive and you're like oh my gosh, that was me. You can't tell anyone about this because it's confidential. Sometimes a tree branch falls on their head and they get a half a scalp lacerated and you are the one that did it. You are the one who gave birth - like you know, to wheel this woman with baby stuck in the womb into the theatre and save them. Like, this is amazing medicine that we're doing. If I have to be paid rubbish to keep going, I would. It is so amazing. (RURAL PATHWAY GP REGISTRAR)

Instead of interpreting the work of rural general practice as a threat, the variety of roles and the opportunity afforded to learn, 'puzzle solve', and become experienced in multiple specialities is presented as an advantage. The ability to develop an area of extended skill or interest within a general practice context was also a positive feature of general practice work that a number of participants commented on. This theme was strong within the rural pathway GP registrars group and less so in other groups suggesting that those who have chosen rural GP know it is an interesting specialty but the next generation is less sure of this.

#### Partner's work opportunities in a rural setting

For some participants, a significant and seemingly insurmountable barrier to rural general practice was whether their partners could find work. The following extracts characterise this problem.

Female: My main reasons are not to do with the work because I actually think that the work would be really interesting and, as I mentioned, I did the whole of my third year in a regional town which the doctors admitted to the local hospital. So, they do walk arounds and they do the afterhours work and they ran the ED and I actually thought that was fantastic. I would love to do that but my reasons why I won't be going rural are purely lifestyle. My husband works in the city and I don't think he'd be able to get a job in a regional town. He's also said he doesn't want to move to a regional or rural location because we've talked about it. Also, as I mentioned, I'm hoping to have children in the next few years. I'd like to have my antenatal care at a major public hospital in the city and I'd like to be close to my family and they live in [city]. So, in the future potentially, those are my very firm reasons why I won't be working rurally. (MEDICAL STUDENT, FLINDERS UNIVERSITY)

Female: That's the - I think that's
school and - so really then that's going to make me consider metro GP training but then do an extra year and then I can maybe move Fleurieu Hills kind of to work. (MEDICAL STUDENT, FLINDERS UNIVERSITY)

Both participants comment on the inherent social and employment implications of working rurally. Even though there is a demonstrated interest in rural general practice, the perceived lack of work for their partners makes this choice untenable.

highlights that there is a perceived trade-off for a good work-

*Female:* Yes, it just felt like - more like a business rather than actually caring for patients like I would want to.

Male: That's such a shame, yes.

Female: So, that kind of put me off GP, to be honest. I did my fair share for 20 weeks. (PREVOCATIONAL MEDICAL TRAINEES, SALHN)

Female: Yeah, and I feel like in the city, you become more just a referral pathway. So

specialty decision-making is influenced by, and enmeshed with, beliefs about medical training as a form of *status competition*. Status competition is generally defined as a motivation to increase one's order in a social hierarchy and to seek greater esteem in relation to others in a particular social structure. Seeking specialties that are perceived as having higher status could very well be an example of status competition. The question is whether this status discourse is worth addressing and are the deeper status motivations among trainees and medical students

These recommendations map onto many of the discourses identified in the data set and the survey conducted as part of this project.

*More flexible work arrangements including job-sharing.* This idea addresses the concern that rural training and general practice can be socially and professionally isolating. Having a peer to work alongside in a rural setting can alleviate the sense of isolation and overburdening responsibility that came up time and time again in the focus groups.

This analysis has identified numerous positive rural general practice and general practice discourses for promotion, including:

Rural general practice provides a sense of agency and interesting medicine, with the opportunity to develop a special area of interest or skill;

Rural general practice provides an opportunity to 'make a difference' in a rural community;

General practice can provide an opportunity to balance work, family, and other lifestyle interests;

For older potential general practice applicants, it could be useful to promote facets of general practice training that could expedite and streamline their career (especially when contrasted with other specialities); and

General practice is a very rewarding career that can involve great diversity in practice, and a continuum of care that can make a significant difference to a person over a lifetime.

These are general practice discourses that need to be better illuminated and disseminated.

Clearly, there are structural issues that require attention in promoting general practice, including:

Rural general practice suffers from a 'tyranny of distance', which disrupts important social relationships. Our analysis clearly shows that if this barrier could be ameliorated through job-sharing and other strategies that reduce the social and professional isolation that doctor's experience, this would go some way to open up the rural pathway for a significant number of students and prevocational trainees;

Rural general practice is seen as a medically isolated and unsupported specialty choice. Focus needs to be placed on promoting the team-based approach to care that can still be present in rural settings, as well as highlighting other supports available both onsite and remote;

We need to consider different models of rural general practice training and work that

# 7. Survey of final year medical students

To gain a broader understanding of the factors influencing specialty choice and perceptions of rural general practice and general practice, a survey was undertaken with final year medical students at the two SA medical schools.

## 7.1. Methods

We conducted an online based survey of final year medical students enrolled in the MBBS at the University of Adelaide and the MD at Flinders University.

The questionnaire was developed following a review of the literature and in consultation with the study's Steering Group consisting of representatives from GPEx, the University of Adelaide, Flinders University, Rural Support Services and SA MET. It covered five areas: participant characteristics; medical school training experience; career intentions; attitudes and perceptions of rural general practice; and attitudes and perceptions of general practice. A copy of the questionnaire is in Appendix 2.

The questionnaire was piloted with six 5<sup>th</sup> year medical students from the University of Adelaide

## 7.2.2. Training experience

The questionnaire asked medical students about their exposure to rural general practice and general practice during their medical degree (Table 5). Nearly all respondents reported having rural exposure during their training (95%), with nearly two-thirds having their experience in both a rural hospital and rural general practice (63%). The following was reported by respondents in regards to their length of exposure to general practice during their medical school training:

28% reported exposure of less than two months;

50% reported having less than six months exposure; and

42% reported exposure of between seven and 12 months.

The quality of the rural training experience was rated high, with 89% of respondents rating it good to excellent (Table 5).

Characteristics	Values	Frequency	Percent
	< 2 months	16	28.1
	3-6 months	11	19.3
Amount of general practice exposure during training	7-12 months	24	42.1
1 5 5	>12 months	2	3.5
	Missing	4	7.0
	Yes	54	94.7
Rural practice exposure during training	No	2	3.5
. 2	Missing	1	1.8
	Rural hospital only	9	15.8
Location of rural exposure (n=54)	Rural general practice	9	15.8
(11-04)	Rural hospital and rural general practice	36	63.2
	Very poor	0	0.0
	Poor	2	3.7
Quality of rural training experience (n=54)	Fair	4	7.4
	Good	22	40.7
	Excellent	26	48.1

Table 5: Medical school training experiences (n=57)

### 7.2.3. Career intentions

The medical students were asked several questions on their career intentions and interest in general practice or working in a rural area. Just under half of respondents reported they had already chosen a

result is quite different than that reported in the 2019 MSOD final year survey where only 15% of respondents had chosen general practice as their preferred future specialty<sup>112</sup>. This is likely to reflect the profile of the students who responded to our survey. Additionally, more than half of all respondents had considered general practice as a specialty choice.

The students were also asked whether they planned to undertake their specialty training in SA. A small proportion reported they would not (16%) and they would be taking up their training interstate or overseas (Table 6). The reasons given were: they were not from SA; their family and friends were located elsewhere; and they perceived better training opportunities interstate, such as exposure to procedures and specialty experts. There was also a substantial group who reported they were undecided as to whether they would pursue their specialty training in SA (40%).

Characteristics	Values	Frequency	Percent
Decision on medical specialty	Yes	28	49.1
	No	1	1.8
	Undecided at this stage	23	40.4
	Missing	5	8.8
	General practice	10	

Table 6: Career intentions (n=57)

Specialty selected (n=28)

Location of specialty training outside SA (n=9)	NT Darwin	2	22.2
	Qld	2	22.2
	Singapore	2	22.2

### 7.2.4. Factors influencing medical specialty choice

Based on information collected through the literature reviews and input from the Steering Group, respondents were asked to consider what factors they saw as important when making their medical specialty choice. These factors covered areas such as the type of medicine, working conditions, specialty training and experience during training.

Respondents rated each factor on a scale from one to five, where five was very important when deciding on their specialty and one was not important. These ratings were collapsed into three groups: important or very important (4-5); moderately important (3); and not important or slightly important (1-2). The results are shown in Table 7.

The most important factors reported by respondents related to the type of medicine and working conditions. The most common factors reported were clinical problem-solving and lifestyle, with 89% of respondents rating these as important to very important. This was followed by role models (82%), flexible working hours (77%), compatibility with family life (77%), and comprehensive patient care (75%) (Table 7). Experience of the specialty during training was rated as important or very important when making a specialty choice for 71% of respondents. Teamwork opportunities were also listed as important by 73% of respondents.

The least important factors (rated as slightly or not important) considered when making a specialty choice were prestige (71%) followed by less acute and emergency conditions (52%), fees for the training program (51%) and peer group choices (50%) (Table 7).

The medical students also had the opportunity to record other factors as important in their decision-making process. These other factors were:

Wanting to do something they enjoy, have fun doing it and is interesting and stimulating;

Opportunities to work overseas and in non-clinical areas such as health policy; a portable specialty;

Opportunities for sub-specialities outside medicine such as emergency and hospital work;

Training and work conditions such as maternal leave availability, fair conditions during training, travel requirements;

Ease of entry to training;

Location of partner's career opportunities; and

Lack of politics and political influence.

<sup>87</sup> The University of Adelaide

Table 7

### Attitude and perceptions of rural general practice

In regard to the attitudes and perceptions about rural general practice, respondents most commonly agreed it was a specialty seen as having: versatile work (92%), a mix of practice and hospital work (92%), challenging work (84%), an interesting specialty (74%) and compatible with family life (65%%) (Figure 32). Over half the respondents saw rural general practice as a specialty in crisis (57%), a stressful specialty (57%), but also as having a good quality training program (57%).

Results indicated that 71% of respondents disagreed or strongly disagreed that rural general practice was perceived as a prestigious specialty by their colleagues, and the public (53%), that it was a popular specialty (61%) and provided academic opportunities (45%) (Table 8).

A comparison of perceptions of rural general practice by medical students who had chosen general practice or rural general practice and those medical students who had chosen another specialty is shown in Figure 32. A greater proportion of medical students who had not chosen general practice or rural general practice as a specialty saw it as a specialty in crisis. They saw it as providing challenging work but being less compatible with family time (Figure 32). Those medical students who had chosen general practice or rural general practice saw it as an interesting specialty but lacking prestige (Figure 32). There was a perception across both groups that rural general practice did not necessarily offer a supportive work environment (59%).



Figure 32: Comparision of perceptions (strongly agree/agree) of rural general practice by medical students who had chosen general practice or rural general practice versus another specialty (n=26)

Rating	Strongly agr	ree/Agree	Undec	ided	Strongly disag	ree/Disagree	Missing
Factor	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Versatile work	45	91.8	2	4.1	2	4.1	8
Mix of practice & hospital work	45	91.8	4	8.2	0	0	8
Challenging work	41	83.7	7	14.3	1	2	8
Interesting specialty	36	73.5	10	20.4	3	6.1	8
Compatible with family time	32	65.3	9	18.4	8	16.3	
Diversity of career opportunities	31			16.3			

Table 8: Perceptions of rural general practice compared with other specialities (n=57)

The medical students were also asked what they perceived as the advantages and disadvantages of rural general practice and these are summarised in Table 9 and Table 10. The advantages reported by respondents related to lifestyle, community, work, training and personal advantages (Table 9). The most commonly reported advantages were the flexible work hours, being part of a community and being able to give back to a community that was under serviced. Diversity and scope of practice, the ability to sub-specialise and undertake procedural work were the most commonly reported work advantages.

When asked about the disadvantages of rural general practice the most common disadvantage reported was isolation (Table 10). This was isolation from family and friends, cultural and social opportunities and professional isolation. The other common disadvantage was around living and working in a small community and separating life and work. In terms of work, long hours, lower pay, limited career progression and lack of access to support were reported by the respondents (Table 10). One respondent reported sexism existing in rural practice and one that it was highly political.

Category	Themes
Lifestyle	Flexible working hours
	Opportunity to explore the natural environment
	Raising children in a community where they are known
Community	Strong role within the community
	More integrated medical role
	Sense of community involvement/ being part of a community
Work	Greater diversity/wider scope of practice; diversity of patient demographics; more interesting cases; good mix of acute, chronic, medical surgical
	Money; good pay/benefits; greater financial returns
	Patient continuity; opportunity to develop long term patient relationships
	Use a wider range of procedures/skills/procedural work
	Being able to work in a hospital as well as general practice
	Opportunity to sub-specialise

Table 9: Perceived advantages of rural general practice

Category	Themes
Isolation	Personal and professional isolation; less contact with peers
	Lonely
	Geographic and social isolation from family and friends
	Isolation from the arts, restaurants, sporting matches
	Distance
Family	Opportunities for schooling
	Partner's goals and job opportunities
Work	Lack of support
	Working hours; overworked
	Limited career progression
	Comparative lower pay
	Lack of respect by some colleagues

## Table 10: Perceived disadvantages of rural general practice

A comparison of perceptions of general practice by medical students who had chosen rural general practice or general practice and those medical students who had chosen another specialty is shown in Figure 33. A greater proportion of medical students who had chosen rural general practice or general practice as a specialty saw it as an interesting specialty, with versatile work in a supportive environment and providing a flexible lifestyle which is compatible with family life

95 The University of Adelaide

Table 12:	Perceived	advantag	es of gene	ral practice

Category	Themes
Lifestyle	Flexibility; flexible hours
	Opportunity to have a family-oriented life; compatible with having a family and interests outside work
	Lifestyle balance
Work	Ability to develop as a well-rounded doctor; provide comprehensive care and support
	Broad scope of practice; broad spectrum of practice; diverse workload
	Establish meaningful long-term relationships with patients; holistic care; continuity of care
	Rewarding career in complex community care
	Flexible work areas
	Stimulating work variety; diversity of conditions
	Being able to further specialise in an area of interest
	Good

Category	Themes
Training	Lower salary during training
Work	Difficult work
	Isolation from other medical specialties; less inter-specialty collaboration

Table 13: Perceived disadvantages of general practice

## 7.3. Summary of final year medical student survey

The respondents to this survey were skewed towards those from a rural background, and those who had indicated that they had already chosen general practice as a specialty, and therefore results must be interpreted with this in mind.

The key findings from the medical student survey are outlined below:

In ter24s637c54p0sU(altb)F0(au)8(a)113(h)F4()eT #ET p595:444c841r68 meW/farB50:302 013020:34y60.802 Tabase 0.26 that nearly all respondents had some exposure to rural general practice and general practice, although this varied in length and location;

Nearly half of the respondents reported they had made their specialty choice by their final year of medical school, with general practice being the most common choice;

The survey of the final year medical students provides insights into the factors considered important when making a specialty choice.

- The important factors related to the type of medicine (such as diversity of patients), intellectual challenge and clinical problem solving, exposure to the specialty (including role models) and flexibility and lifestyle.
- The least important factors reported were the prestige of the specialty, peer group choice and aspects of the training programs (such as fees and length of training);

Rural general practice was perceived as offering versatility, challenging work that was interesting, and had a mixture of hospital and practice work. It was also seen as providing a flexible lifestyle, compatible with family life, and a diversity of career opportunities. These were more pronounced for those who had reported choosing rural general practice or general practice as a specialty;

Rural gen:44841268iceW/33BT0:3020.30060418685227666151596.9] C.59Thd [prce302];0205407eTre5(25R66/48404702/

h

## 8. Key messages and opportunities from the study

Several key messages arose from each part of the study and these are summarised below and in Figure 34. Many of these messages were repeated across the different data sources giving a strong and coherent narrative that can be used to develop solutions and begin to address the issues facing rural general practice and general practice. The ultimate goal being to reverse the trend we have seen in the applications to rural and urban general practice vocational training in SA.

The key findings are presented in alignment with the decision-making model used to frame this project (Figure 5). The key findings identify and describe the contextual factors, experiences and messaging, and medical students and trainee

## 8.2. Experience/messaging

In addition to the contextual factors, experiences and messaging about rural general practice and general practice are also having an impact on career decision-making.

A key message from the focus groups and final year medical student survey was that prior experience within general practice was an important pivot point in specialty decision-making. The survey indicated that exposure to the specialty was one of the key factors impacting on decision-making.

Focus group respondents highlighted the importance of experience of a specialty in the decision-making process and the variability in quality of these experiences. They discussed both positive and negative experiences, which influenced specialty choice. *" someone who had a GP placement that all they saw was patients with chronic fatigue syndrome"*.

Regarding rural general practice and general practice, the following issues were highlighted:

The experience needed to be authentic, particularly for medical students;

A variety of experiences which showcase the positive aspects of general practice and dispelled the myths is recommended; and

The importance of the supervisor and the positive or negative impact they could have on the experience and the specialty choice.

The contextual analysis emphasised the reduced opportunity for prior experience within general practice, particularly at a prevocational training level. In addition, the survey found that a substantial proportion of respondents had not received communication about general practice from ACRRM, RACGP and/or GPEx. While this may be because these organisations cannot easily access these students, or because students they had chosen not to participate in any of the opportunities provided, this is an area worth reviewing. With a lack of exposure and information, this means that perceptions about general practice could be based on negative messages received within the hospital system and media, rather than first-hand experience. The messaging around a specialty gained from family, peers and the public were also important in influencing career choice. The study found that:

Attitudes of peers to rural GP and particularly general practice were negative, creating a culture that general practice was a 'fall-back' specialty not the preferred specialty; and

Participants perceived that the media and the professional organisations also conveyed a negative message, such as a 'specialty in crisis', which makes it appear a less attractive career choice.

Overall there was a concern from the stakeholder group that the current messaging around rural general practice as a career was confusing. There are a number of different organisations involved in marketing general practice, but there is no co-ordinated message. This is made more complex due to the many different training options for a career in rural 595.449f to 83.4i0.302 0.395.44 841.68 ring op /5(ogaA70.663.04 i 0 595)

There were a number of positive perceptions which can be promoted to challenge and/or reframe negative perceptions. Rural general practice was perceived as an interesting specialty, with diverse career opportunities, offering challenging work, with a procedural component, having a mix of practice and hospital work, and giving a sense of agency. Focus group participants discussed rural general practice as providing an opportunity to 'make a difference' in a rural community. This was in contrast to general practice more broadly.

"I'd be bored if I had to work in the city....in rural ... you have to deal with everything". (General practice registrar)

Both rural general practice and general practice were perceived as providing versatile work and flexibility.

Negative perceptions must also be understood in order to target strategies, experience and messaging. The negative perceptions of these specialities are summarised below.

Long working hours:

Flexible working hours was one of the most highly rated criteria used to inform medical specialty decision-making. However, rural GPs were seen to work long hours.

Mundane and patient churn:

Clinical problem-solving was one of the most highly rated criteria used to inform medical specialty decision-making. The perception of general practice broadly was that it could be mundane, repetitive and boring,

work. Better communication in medical school of the realities and opportunities of training and working rurally was considered worthwhile. This aligns with feedback from the survey which indicated a number of respondents had not received communication about general practice.

Build resilience and skills in medical s

### Figure 34: Summary of the key outcomes of the study



# 9. Limitations, strengths and conclusion of the study

This study had several strengths and limitations. The key limitations that related to different parts of the study are summarised below.

#### Contextual analysis

There was a lack of publicly available data on applicants and acceptances to the AGPT program and so it was difficult to assess changes in the profile of applicants. To offset this shortfall, analysis was undertaken using the advanced trainee data provided through SA MET, although what is reported was limited to variables reported through this dataset.

Data specifically for SA was not always available for the analysis because numbers were too small and thus, to protect confidentiality, data was not made publicly available.

### Focus groups

While we had a high response rate for most of the focus groups, there was lower attendance for some groups.

As with all qualitative analysis, the results are not generalisable to all medical students or medical trainees. However, we did have participants from different training hospitals and universities in SA.

### Medical student survey

There was a low response rate, which is typically found with this group of students. MSOD final year medical students response rates are similarly low.<sup>112</sup>

It is likely there was a selection bias in that half of the students were from a rural background or had a rural bonded scholarship and so were more likely to respond to a survey related to the rural workforce, while those who did not respond may have less interest in rural general practice or rural practice. Results are interpreted with this in mind.

The strength of this project is that it has drawn together findings from a contextual analysis, focus groups and a survey to better understand the perceptions of rural general practice and general practice in comparison to other specialties, and the factors that influence specialty decision-making for medical students, junior doctors and specialists in training. Triangulation of results across the project showed strong agreement, which assists to strengthen the overall key messages and combat the limitations of individual study parts.

### Conclusion

This project has drawn together findings from a contextual analysis, focus groups and a survey to better understand the perceptions of rural general practice and general practice in comparison to other specialties, and the factors that influence specialty decision
10.

- 64. van der Horst K, Siegrist M, Orlow P, et al. Residents' reasons for specialty choice: influence of gender, time, patient and career. *Med Ed* 2010;44:595-602.63.21F240.24 Tf23/j.1365
- 65. Roos M, Watson J, Wensing M, et al. Motivation for career choice and job satisfaction of GP trainees and newly qualified GPs across Europe: a seven countries cross-sectional survey. *Educ Prim Care* 2014;25(4):202-10. [published Online First: 2014/09/10]
- 66. Deutsch T, Lippmann S, Frese T, et al. Who wants to become a general practitioner? Student and curriculum factors associated with choosing a GP career -a multivariable analysis with particular consideration of practice-**ori603** ated GP courses. *Scand J Prim Health Care* 2015;33(1):47-53. doi: 10.3109/02813432.2015.1020661 [published Online First: 2015/03/13]
- 67. Kumwenda B, Cleland J, Perscott G, et al. Relationship between sociodemographic factors and specialty destination of UK trainee doctors: a national cohort study. *BMJ Open* 2019;9
- 68. Cleland J, Johnston P, Watson V, et al. What do UK medical students value most in their careers? A discrete choice experiment. *Med Ed* 2017;51:839-51.
- 69. Scott I, Gowans M, Wright B, et al. Determinants of choosing a career in family medicine. *CMAJ* : *Canadian Medical Association journal = journal de l'Association medicale canadienne* 2011;183(1):E1-8. doi: 10.1503/cmaj.091805 [published Online First: 2010/10/27]
- 70. Lefevre JH, Roupret M, Kerneis S, et al. Career choices of medical students: a national survey of 1780 students. *Med Educ* 2010;44(6):603-**B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265329203.2010@30270X3(p2/0.616):603-B2/10.60210/1-TEO/30265**

- 84. Department of Health. Medical Training Review Panel 15th Report. Canberra: Department of Health, 2012.
- 85. Department of Health. Medical Training Review Panel 16th Report. Canberra: Department of Health, 2013.
- 86. Department of Health. Medical Training Review Panel 17th Report. Canberra: Department of Health, 2014.
- 87. Department of Health. Medical Training Review Panel 18th Report. Canberra: Department of Health, 2015.
- 88. Department of Health. Medical Training Review Panel 19th Report. Canberra: Department of Health, 2016.
- 89. Laurence C, Edwards D. South Australia GP Graduate Tracking Study: Phase 2 report: The University of Adelaide, 2018.
- 90. Rural Doctors Workforce Agency. Road to rural intern program 2019 [Available from:

- 110. Archer M. Critical realism: essential readings. New York: Foutledge 1998.
- 111. Braun V, Clarke L. Using thematic analysis in psychology. *Qualitative research in psychology* 2006;3(2):77-101.
- 112. Medical Deans of Australia and New Zealand. Medical Schools Outcomes database national data report 2019. Sydney: Medical Deans of Australia and New Zealand, 2019.

# 11. Appendices

### Prevocational trainees

Topic area	Question		
Introduction	First of all I want to have a chat about the timing and factors which may impact on your specialty decision-making		
Timing of choice:	1. How many of you feel you have made your specialty choice already?		
Rural practice	<ol> <li>Is anyone considering working rurally in the future?</li> <li>2.1. Why would you choose/not choose to work in a rural area?</li> <li>2.2. Have you experienced working in a rural setting? If so how has this experience impacted on your decision-making about a rural career?</li> </ol>		
Factors influencing specialty choice:	<ol> <li>When you consider your future specialty what factors are influencing your preference?</li> <li>Can you describe personal considerations that will impact on your specialty career choice? (may include family, personality, work-life balance, values etc.)</li> <li>Can you describe work/specialty considerations that will impact on your career choice? (may include types of skills, breadth of practice, culture of specialty, prestige)</li> <li>How has your experience with the specialty area impacted on your preference? (may include role models, educators/advocates, placements etc.)</li> <li>Are there other considerations that will impact on your specialty career choice?</li> </ol>		
	I want you to have a think about General Practice now in comparison with other special ties		
Attitudes and perceptions of specialities: general practice	<ul> <li>4. What is your perception of a career in General Practice?</li> <li>4.1. What would be the advantages?</li> <li>4.2. What would be the disadvantages?</li> <li>4.3. Are there differences in status between the different specialities?</li> <li>4.4. What do you think is the perception of general practice in the hospital environment?</li> <li>4.5. Where are you getting information about general practice?</li> </ul>		
Attitudes and perceptions of specialities: rural general practice	<ol> <li>What is your perception of a career in rural General Practice?</li> <li>6 ref*125.0640ewF1 9.97 T&gt;sa1</li> </ol>		

## Vocational Trainee Medical Officers

Topic area	Question
Introduction	First of all I want to have a chat about the timing and factors which may impact on your specialty decision-making
Timing of choice	1. What specialty areas have you chosen
& specialty area:	1.1. When did you make your final specialty choice?
Rural practice	2. Is anyone considering working rurally in the future?
	2.1. Why would you choose/not choose to work in a rural area?
	2.2. Have you experienced working in a rural setting? If so how has this experience
	impacted on your decision-making about a rural career?
Factors	3. When you consider your future specialty what factors are influencing your preference?
influencing specialty choice:	3.1. Can you describe personal considerations that influenced your specialty career choice? (may include family, personality, work-life balance, values etc.)
	3.2. Can you describe work/specialty considerations that influenced your career choice? (may include types of skills, breadth of practice, culture of specialty, prestige)
	3.3. How has your experience with the specialty area influenced your preference? (may include role models, educators/advocates, placements etc.)
	3.4. Are there other considerations that influenced on your specialty career choice?

## Appendix 2: Final year medical student online questionnaire

|--|

1.	Sex:	Male	
		Female	
		Prefer not t	o say
2.	Age in years:		
3.	Were your borr	n in Australia	1
		Yes	
		🗌 No	
4.	Which country \	were you bor	n in?
5.	How many year	s have you b	eing living in Australia for?
6.	Have you lived	l five or more	e consecutive years, or 10 cumulative years in a rural area (RA2-RA5)?
		🗌 Yes	
		🗌 No	
7.	In which State/	Territory dia	d you complete your secondary education?
			ACT
			NSW
			Northern Territory
			Queensland
			South Australia
			Tasmania
			Victoria
			Western Australia
		Othe	r (please specify)
8.	Student status:		
			Domestic
			International
9.	Marital status:		

🗌 No

#### MEDICAL SCHOOL TRAINING EXPERIENCE:

11.	How much general practice exposure have your received during your medical degree (clinical years)?
	Estimated months
12.	Have you had any rural practice exposure during your medical degree so far?

		Yes			
		No			
13.	If you had some rur	al exposure d	uring trair	ning, wher	re was it?
		Rural hospita	al only		
		Rural general	l practice		
		Rural hospita	al and rura	l general j	oractice
14.	How do you rate th	e quality of th	e rural tra	ining expe	erience?
	Very poor				Excellent
	1	2	3	4	5
15.	Why did you under	take the rural	training o	pportunit	y?

#### CAREER INTENTIONS:

16. Have you decided on a medical specialty	?
---	---

	Undecided at this stage			
	No			
	Yes			
lf yes,	what specialty is it?			
Have you, o	or are you considering General Practice as a future specialty?			
	Undecided at this stage			
	No			
	Yes			
Do you inte	nd to undertake your specialty training in South Australia?			
	Undecided at this stage			
	No			
	Yes			
If no, where will you be undertaking your training?				
What	are the main reasons for not undertaking specialty training in SA?			
	If yes, Have you, o Do you inte I I I I I I I f no, What			

19. Are you interested in working in a rural area?

26. What are your perceptions of a career in general practice compared with other specialties? (1=strongly disagree, 5 = strongly agree)

Interesting specialty	1	2	3	4	5
Stressful specialty	1	2	3	4	5
Popular specialty	1	2	3	4	5
Specialty in crisis	1	2	3	4	5
Flexible lifestyle	1	2	3	4	5
Versatile work	1	2	3	4	5
Academic opportunities	1	2	3	4	5
Diversity of career opportunities	1	2	3	4	5
Compatible with family time	1	2	3	4	5
Challenging work	1	2	3	4	5
Work shorter hours	1	2	3	4	5
High salary	1	2	3	4	5
Private practice	1	2	3	4	5
Supportive work environment	1	2	3	4	5
Prestigious (the publics' perception)	1	2	3	4	5
Prestigious (colleague's perception)	1	2	3	4	5
Good quality training program	1	2	3	4	5

Are there any other factors which you associate with General Practice?

Have you received any communication about general practice from the following organisations?

GPEx	` 🗌 Yes	🗌 No
Royal Australian College of GPs	Yes	🗌 No
Australian College of Rural and Remote Medicine	<b>Y</b> es	🗌 No

Please feel free to provide any other comments, which you think, may be useful for this study:

Thank you for completing this questionnaire

If you would like a summary of the results of this study or go into the draw for a \$50 voucher, please provide your

name and email address

Name:\_\_\_\_\_

Email address: