MEDICAL SPECIALTY DECISION-MAKING STUDY

Final Report

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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

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Abbreviations

ACRRM	Australian College of Rural and Remote Medicine
AGPT	Australian General Practice Training
AMG	Australian Medical Graduate
CALHN	Central Adelaide Local Health Network
CSP	Commonwealth Supported Places
GP	General practitioner
GPs	General practitioners
MBBS	Bachelor of Medicine, Bachelor of Surgery
MET	Medical Education and Training
MD	Doctor of Medicine
MSDM	Medical Specialty Decision-making
MSOD	Medical Students Outcomes Database
MTRP	Medical Training Review Panel
NALHN	Northern Adelaide Local Health Network
NSW	New South Wales
NT	Northern Territory
PGPPP	Prevocational General Practice Placement Program
PGY1	Postgraduate Year 1
PGY2	Postgraduate Year 2
Qld	Queensland
RACGP	Royal Australian College of General Practitioners
RCS	Rural Clinical School
RDWA	Rural Doctors Workforce Agency
RTO	Regional Training Organisation
RTP	Regional Training Provider
SA	South Australia
SALHN	Southern Adelaide Local Health Network
SA MET	South Australian Medical Education and Training
SSA	Specific Site Assessment
UK	United Kingdom
Vic	Victoria
WA	Western Australia
WCHN	Women's and Children's Hospital Network

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Executive Summary

There are currently a number of issues facing medical workforce planning and distribution in both primary and tertiary care within South Australia, which will affect service delivery to South Australian rural communities.

Over the past two years GPEx, the South Australian provider of the Australian General Practice Training (AGPT) program, has experienced an overall decline in the number of applicants for the AGPT program. This decline in applications is more noticeable for the rural pathway of the AGPT program; with a 28% decrease in rural pathway positions filled between 2016 and 2019. Currently general practice registrars in rural South Australia make up approximately 25% of the medical workforce and with the declining numbers of applications for the rural pathway, this percentage will decrease, affecting service delivery to rural and remote communities.

Within South Australia there are also difficulties recruiting general practitioners (GPs) to work within rural and remote areas. The GPEx Graduate Tracking Study shows that 39% of GPEx graduates are retained in rural general practice. Notably, the study indicates that 20% of these graduates who were retained in a rural location had completed their AGPT program on the general pathway. Therefore, it is important that we consider that applicants to both the general and rural pathway are potential future rural workforce. Hence, with the reduction of registrars wishing to train in rural and urban South Australia it can be expected that rural general practice vacancies will continue to be impacted.

In order to address the challenges facing South Australian medical workforce planning, we need to begin by better understanding when, how and why doctors are choosing their specialty and location of future practice. Previous research has identified a number of factors that influence specialty career choice, and these can be broadly categorised into four groups: personal characteristics, professional/work characteristics, training experience and lifestyle. However, there is a lack of current research in the South Australian context on the perceptions of rural general practice and general practice and the factors affecting this career choice.

The aim of this study was to understand the perceptions of rural general practice and general practice in comparison to other specialties and the factors that influence career decision-making for medical students, prevocational and vocational. This will assist to understand why applications to the rural pathway and general practice training more broadly are decreasing.

A mixed methods approach was used to address the aim. The study had two parts with study objectives aligned to each part. Part 1 focused on the contextual factors that may be impacting on general practice and included: a literature review, an environmental scan (including analysis of data) and a stakeholder discussion. Part 2 focused on exploring the perceptions of rural general practice and general practice by medical students, prevocational and vocational trainees through focus groups and a survey. Results from each part were triangulated to develop key messages and opportunities.

Key messages and opportunities

A number of key messages were identified from this study, which are presented within a model for specialty decision-making. 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 issue of decreasing applications to rural AGPT program training in South Australia.

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 the norm, it could be considered as an option, but would need to incorporate safety netting for registrars, supervisors, practices and the community.

- Increase opportunities for and enhance quality of early general practice experiences

The general practice experience was perceived as pivotal to specialty decision-making. Poor quality medical school placements which were mundane, lacked quality supervision, and did not give the student an opportunity to experience the diversity of general practice were often denoted as the turning point that took participants away from the idea of choosing general practice as a specialty. Medical student and prevocational placement quality is important to attract applicant to rural general practice.

- Improve information regarding remuneration

Remuneration is a factor in the medical specialty decision-making process. Our data suggests that there may be a significant degree of misinformation circulating among students and trainees, which is arguably influencing decision-making. Participants recommended more clarity be provided over what a GP could be expected to earn, so they could make an informed decision. It was also recommended that working conditions should be changed so they are more comparable to those found for hospital-based vocational trainees (e.g. leave entitlements).

- 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[1] and develop confidence and skills;
- Share the outcomes of this research with GP role models and work together to reframe communication;
- Strategies developed must take into consideration the effect that contextual factors may have and explore opportunities for influence, advocacy or change; and
- Changing trends in the profile of medical students, prevocational trainees and vocational trainees should be considered in developing and targeting strategies.

[1] Agency means to have independence and control over the decisions one makes.

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.

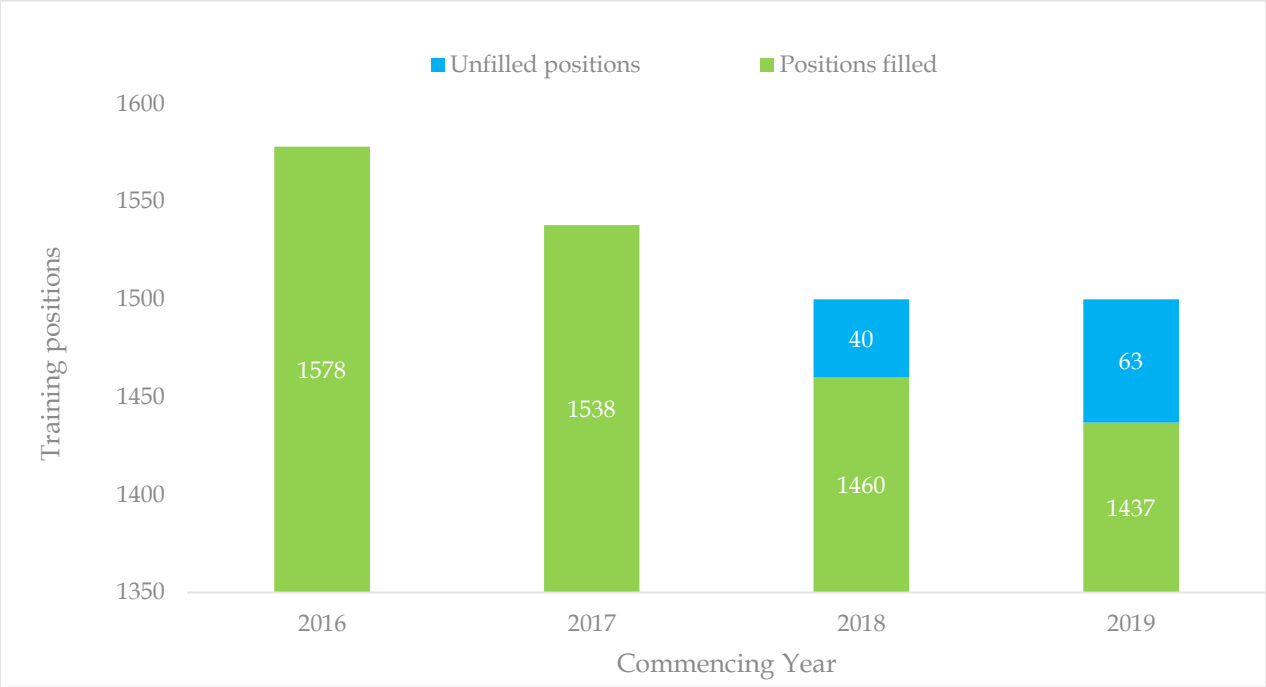
1. Background

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[1], 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[2]. In the US, there is a projected shortfall of up to 43,000 family care physicians by 2030[3 4]. 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[5] 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[6]. In the US, general practice training numbers have been decreasing[7] and despite improvements in applications to general practice residency programs only 96.7% of positions were filled[8].

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[9] (Figure 1). In 2018, 97% of positions were filled but this decreased to 96% in 2019.

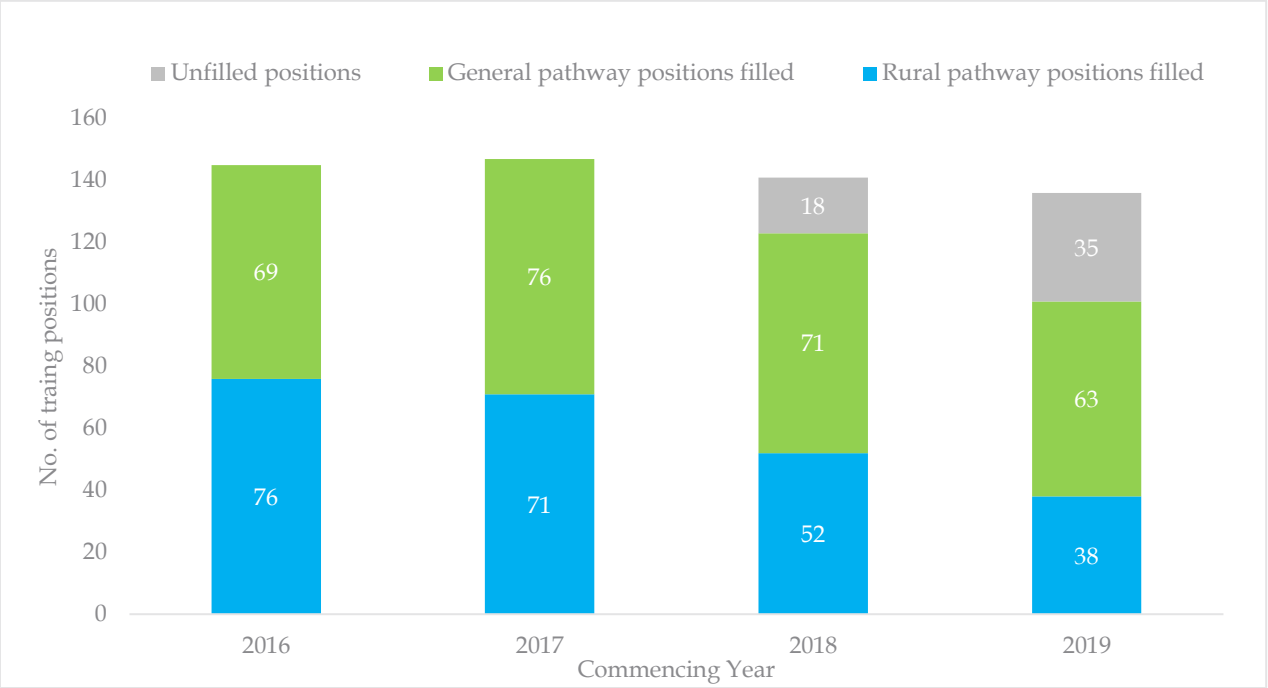
Figure 1: AGPT program positions, Australia, 2016-2019



In South Australia (SA), the proportion of filled training positions with GPEx have decreased by 25% between 2016 and 2019, with 87% of SA training positions filled in 2018 and 74% in 2019 (Figure 2). In 2019, 56% of the total unfilled positions across Australia were from SA, compared to 45% in 2018.

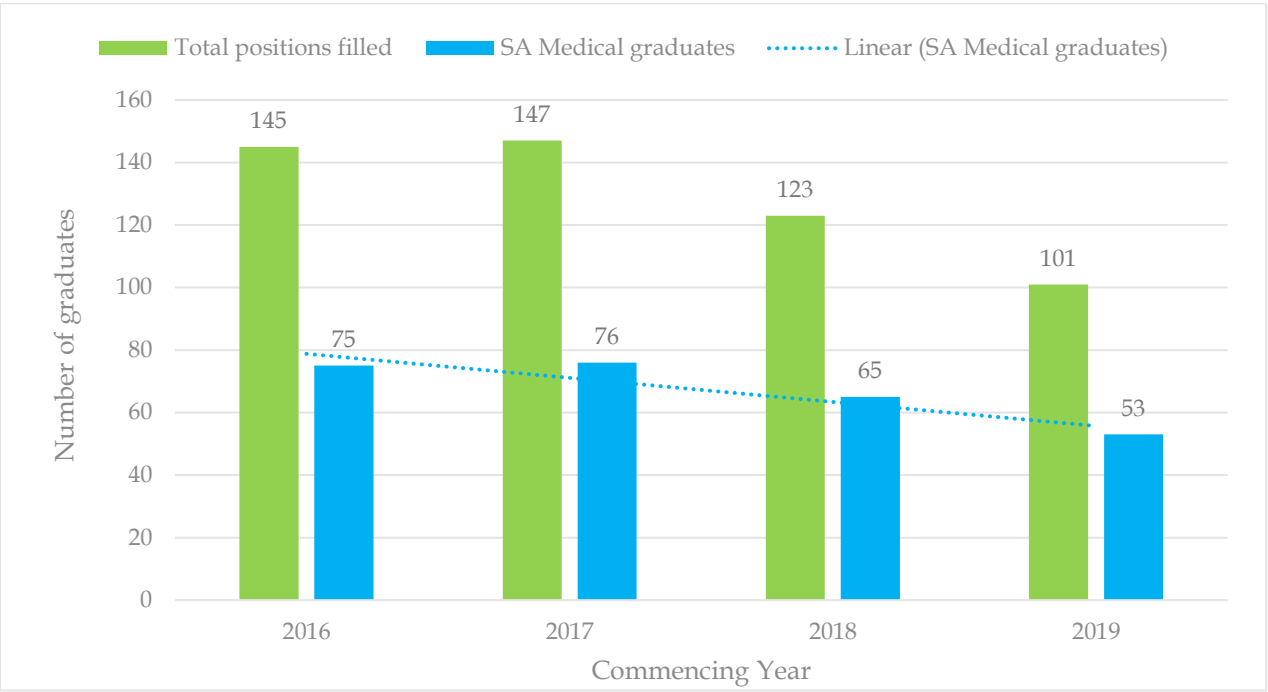
In SA, the distribution of filled positions differs across the training pathways. In 2019, 38% of the cohort were in the rural pathway compared to 52% in 2016. This represents a 28% decrease in rural pathway positions filled between 2016 and 2019 (Figure 2).

Figure 2: SA AGPT program positions, 2016-2019



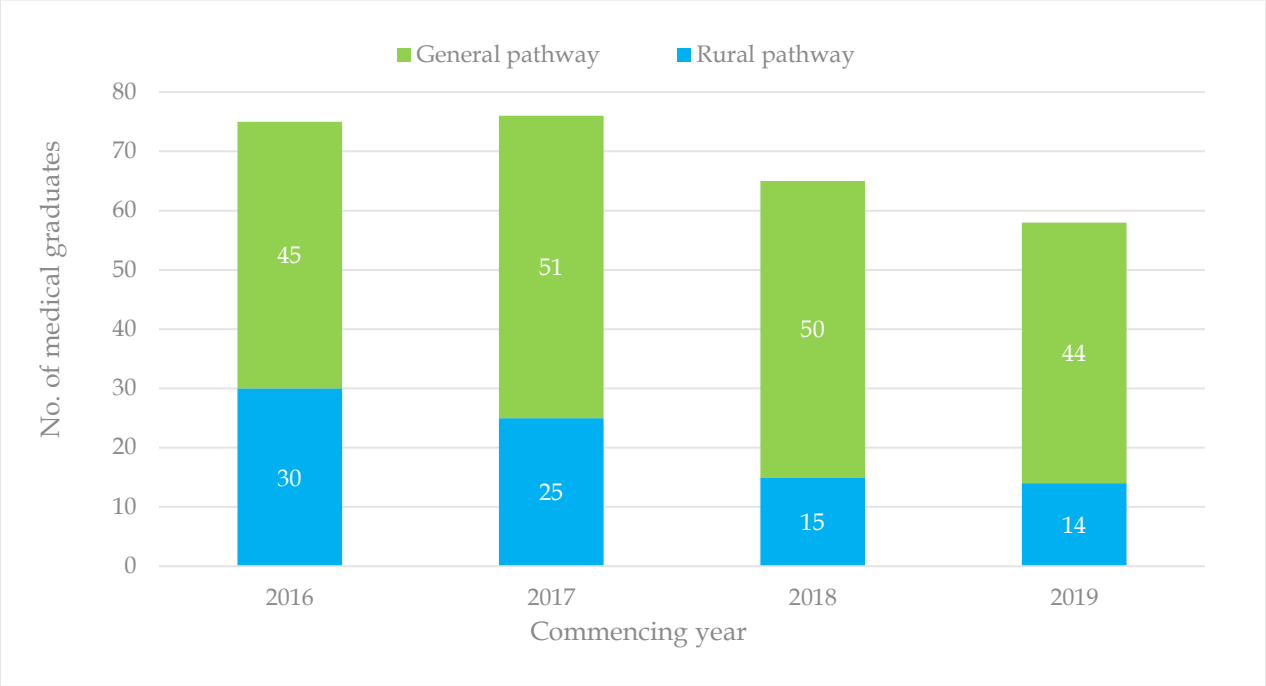
We have seen a 30% decline in SA medical graduates entering the AGPT program in SA between 2016 and 2019 (Figure 3). While the proportion of filled positions in the SA AGPT program by SA medical graduates has remained at 52% over the last four years (Figure 3), the overall numbers are declining as the 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 (Figure 4).

Figure 4: SA medical graduates by training pathway, 2016-2019



With already well-documented difficulties in recruiting GPs to work within rural and remote areas in SA, the decline in applications to the SA AGPT program is extremely concerning. The GPEx Graduate Tracking Study indicates that 39% of SA AGPT program graduates are retained in rural general practice[10]. Notably, the study indicates that 20% of these graduates retained in a rural location had completed their AGPT program on the general pathway. Therefore, it is important that we consider that applicants to both the general and rural pathway are potential future rural workforce. Hence, with the reduction in registrars wishing to train in rural and urban SA it can be envisioned that rural general practice vacancies will continue to be impacted.

In order to address the challenges facing South Australian medical workforce planning, we need to begin by better understanding when, how and why doctors are choosing their specialty and location of future practice. With shortages of GPs in many countries there has been a recent surge in research investigating the perceptions and attitudes of general practice as a career and what factors affect this career choice[7 11-41], although the evidence from Australia is sparse[24 42 43] and based on small cohorts.

The factors most commonly cited in the literature in the last 10 years as positively influencing a general practice career choice include: flexbility[24 40]; family focused career allowing a work-life balance[12 14 24 27 40 44]; connection with patients[14 20 24 40 44 45]; general practice role models[11 12 35 40], job

satisfaction[14]; and medical breadth[30 44]. Negative perceptions about general practice have also been reported as influencing specialty choice. These include poor remuneration compared to other specialities[7 24], lower prestige or status[7 12 14 24], workload[12], less intellectually challenging[7 27], the portrayal of general practice by other specialists during medical school[14], negative media and political opinions[16] , and the structure of general practice[14]. The importance of these factors varied by level of training and experience of the specialty.

Additionally, research indicates that demographic and educational factors are also associated with decisions on a career in general practice. Those intending to apply to general practice training are more likely to be female[18 45-47], older[45 47], attended a graduate entry medical school, had a lower academic performance[14] , physician parents[20], and student debt[47]. Location or type of medical school[26 48 49], length of training program[45], experience of high quality and authentic clinical placements at various training levels [12 16 35], and the quantity of general practice teaching in medical school[13] , are also associated with applying to general practice training[18].

In addition to the factors that influence a career in general practice, there is a large amount of evidence from Australia and elsewhere on the factors associated with choosing a rural medical career. Rural background[45 50], rural exposure during training[51], being male[52 53], being older[54 55], attending a rural clinical school[56 57], having a rural bonded scholarship[53 58], and training time in a rural location[51 59] are known to be associated with choosing a rural career, although not necessarily as a GP. Only one study looked at the factors associated with decisions to choose rural general practice training. Sureshkumar et al's[39] study found that the applicants to the AGPT program were more likely to enter the rural pathway if they had a rural background and rural clinical school experiences.

With predicted shortages in the general practice workforce, decreasing applications to general practice vocational training, particularly to the rural pathway, and a lack of current research on the perceptions of general practice as a career choice, it important that we gain an understanding of what medical students, prevocational and vocational trainees think about general practice as a career and what factors influence their decisions.

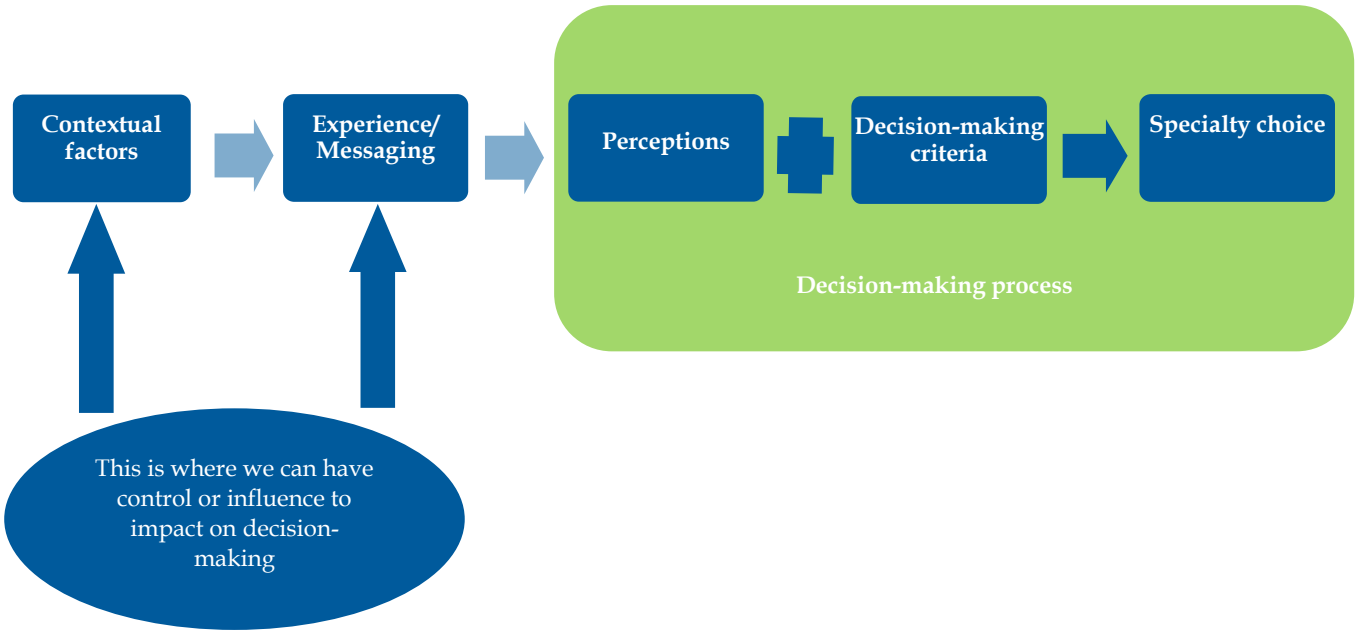
1.1. Decision-making process

When deciding on a specialty, doctors must use their knowledge and perceptions of that specialty and match this against the criteria they are using to make their choice. This process determines a 'goodness of the fit', and results in a specialty decision.

Perceptions of a specialty are informed by the context but are formed through the lens of the doctor's own experience with that specialty and the messaging they are receiving about it. Figure 5 shows how contextual factors and experiences and messaging influence perceptions, which in turn impact on decision-making.

People's behaviour is based on their perception of what reality is, not on reality itself. Therefore, it is important to gain an understanding of these perceptions. This knowledge can be used to influence the messaging and experience, and ultimately to change perceptions. This construct informed the research objectives and study design.

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 provide evidence on what factors have been reported as important in deciding on a medical specialty as well as the perceptions of rural general practice and general practice as a specialty. This information was used to inform the environmental scan and the development of the focus group and survey questions.

Environmental scan

A number of exogenous factors can contribute to the perceptions of a medical specialty as a career choice. In addition to personal and educational factors influencing specialty choice, there are several contextual issues that are also likely to be impacting on what specialty a junior doctor or medical student chooses. These external factors can include changes in medical school programs, changes in specialist training programs, changes in the profile of medical graduates, changes in the business of general practice and changes in the management of general practice training. Such factors were identified through the literature review and discussions with key informants, representing different parts of the medical training pipeline.

In addition, an analysis of the profile of medical students, prevocational and vocational trainees was completed. In order to assess if changes in the profile of medical students, and prevocational and vocational trainees may have some effect on applications to general practice training, data was analysed from the Medical Education and Training dataset, the AGPT Registrar Satisfaction Surveys and GPEx applicant data. In addition, a survey of registrars accepted in the initial round to enter the AGPT program through GPEx in 2020 was also analysed.

Stakeholder discussion

In order to explore the contextual factors identified, a 'round table' discussion with key stakeholders was undertaken. Key elements from the literature review and environmental scan were presented to stimulate thought and discussion.

The key stakeholders included those involved in medical training at South Australian universities, GPEx (the SA provider of the AGPT program), Rural Clinical Schools, SA MET and Rural Support Services, SA Department of Health and Wellbeing.

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 participants' perceptions of rural general practice and general practice more broadly as a career, what factors are important when deciding on a specialty, what influenced their decisions and what could be done to make rural general practice more attractive to medical students and prevocational trainees.

In addition to the focus groups, a survey of medical students in their final year of medical school was undertaken. The purpose of this survey was to gain the views of rural general practice and general practice from a larger group of students than those selected for the focus groups. The survey allowed for confirmation of views and attitudes raised in the focus groups and also explored what may change perceptions.

2.3. Triangulation of results

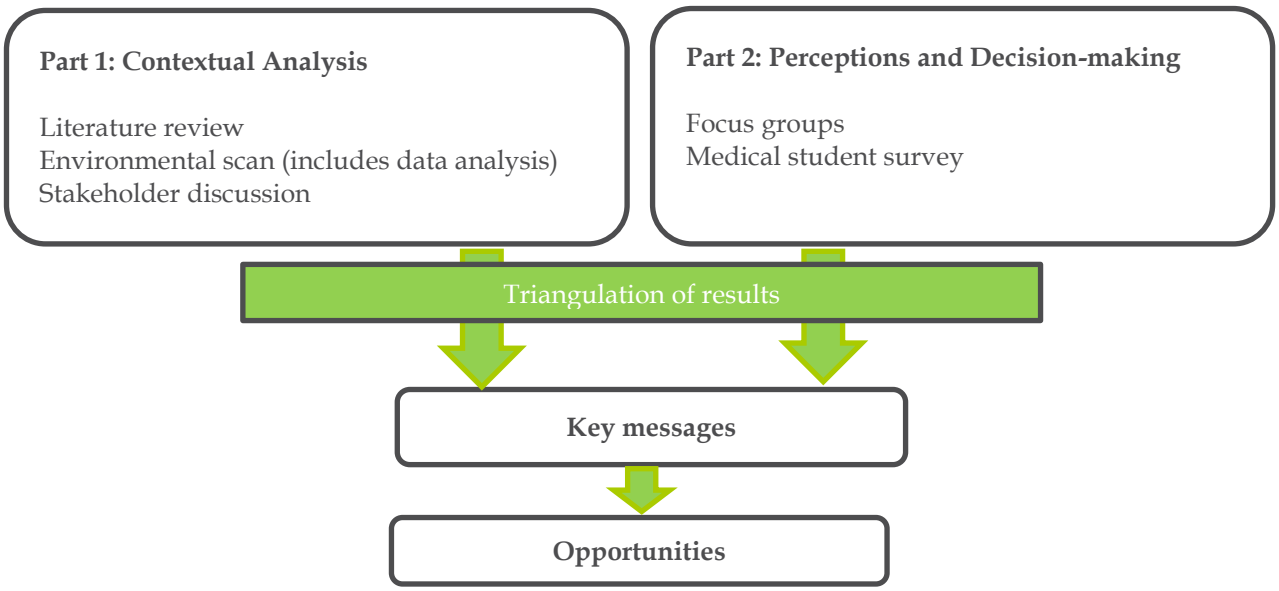
Triangulation is often used to address the internal validity of a project because it uses more than one method to answer a research question[60]. Within this project, triangulation was useful to build a more comprehensive understanding of the key findings emerging from each method of data collection and how they were supported and built upon across the various methods of data collection.

To triangulate the results, the key messages from each method of data collection were extracted by the authors. Results were also presented to the project's Steering Group who assisted to confirm the key messages.

Within the final section of this report 'Key Messages' and opportunities each key message (theme) is documented and the findings that supports this theme are summarised. This process shows the strength of the themes, which are supported across the different methods of data collection.

How the themes from each method of data collection were used to develop the key messages and opportunities is shown in Figure 6.

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 Adelaide Hospital, CALHN, (Ref: 12128)
- Rural Support Services, Barossa Hills Fleurieu LHN (SSA/19/SAH/94)
- The Queen Elizabeth Hospital, CALHN, (Ref: 12128)
- Whyalla Hospital and Health Service, Rural Support Services (SSA/19/SAH/92)
- Women's & Children's Hospital, WCHN, (SSA/19/WCHN/145).

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 are more likely to choose specialities such as surgery. A study of final year medical students across France found that female medical students selected specialities such as paediatrics, gynaecology and GP[61]. Similarly, a New Zealand study found women were more likely to be interested in obstetrics and gynaecology, geriatrics, public health, paediatrics and medicine, while men were more likely to be interested in emergency medicine, surgery and anaesthetics[62]. While Ibrahim et al[63] found that UK male medical students were no more likely to want to pursue a career in surgery than females, they did find a correlation between being male and a desire to pursue certain surgical sub-specialities such as orthopaedics and neurosurgery. Interestingly, they also found that female gender was not significantly correlated with any specialty or considered an important factor in determining career choice. In contrast, other studies report a relationship between specialty and gender. A survey of doctors in specialty training in the UK in 2013 found that being female and white increased the likelihood of being a general practitioner, while males were more likely to be in surgical training[46]. Gale et al[18] found that junior doctors applying to specialty training in 2015 in the UK who were female, non-white or had secondary education in UK were more likely to apply for general practice training. Among German medical students, females were more motivated to choose general practice[38] and have a more positive attitude to general practice[25].

Gender also played a role in how important different factors were in the decision-making process. An Australian study of general practice registrars found that men ranked remuneration as more important and women ranked the ability to work part-time more highly[19]. A survey of residents in Switzerland found that work and time-related aspects of a specialty and patient orientation were more important factors for women when choosing a specialty[64]. Similarly a survey of general practice trainees and newly qualified GPs across the UK and Europe showed that for females, the most common reasons for choosing general practice were compatibility with family life, holistic approach to the patient and strong representation of communication aspects; while autonomy and independence, good salary and role models were more common reasons for males[65].

Age was also found to be an influencing characteristic. Ibrahim et al[63] found age played a significant role in career choice of final year UK medical students. Increasing age correlated with pursuing specialties such as orthopaedic surgery, dermatology, rheumatology and radiology. A Canadian study following medical students from eight universities found that being older was the only predictor of post residency rural family practice[54]. A German study of recent medical graduates found that higher age was associated with choosing a general practice career [66].

Kumwenda et al's[67] 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[68] 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[45]. Two national surveys of Canadian medical students found that those preferring general practice were more likely to be female[47], older[47 69] and engaged, married or living with partners[47 69].

A few studies investigated the role of socioeconomic background, schooling and parents' education level with different specialty choices. Rodriguez Santa and Chalkey[46] 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[46]. Kumwenda et al[67] 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 specialties. Gale et al[18] 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[69] study of Canadian medical students also found that there was an association between selecting general practice as a specialty and having parents without a postgraduate university education.

Having family or friends in a particular specialty could also influence specialty choice. Deutsch et al[66] found that recently graduated medical students had a greater preference for general practice if they had family or friends in that specialty while Ie et al[20] 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[20 30 33 63 70 71]. Merret et al[33], Landstrom et al[30], Roos et al[65], Gill et al[45] and Deutsch et al[72] 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[20]. The desire for a varied scope of practice was found to be a predictor for choosing general practice training by Canadian medical students[69]. Several studies have reported the variety of the work as a positive influence on choosing general practice[21 45 66]. 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[54]. However, the job content of general practice has also been reported as a negative factor for choosing general practice[27].

Prestige and income were cited by several studies as an influencing factor on specialty choice. Ibrahim et al[63] found that among medical students, prestige and financial reward were important factors for those choosing a surgical specialty. This result was also supported by Creed et al[73] who found that surgery, adult medicine and intensive care medicine were the top-ranked specialties by medical students in terms of prestige, while general practice was ranked much lower. Swedish medical students also reported the low status of general practice as a negative aspect of this specialty[30]. This was similar to results from a survey of medical students in Australia that reported the most common perceived disadvantage of pursuing a career in general practice was its poor pay and low prestige[24]. German medical students reported that one of the common reasons to dismiss a career in general practice was the perception of low or inadequate earning opportunities[72]. A US study found that anticipated income level of a specialty varied in importance among medical students, associating high income with prestige and that specialty prestige was defined as competitiveness, perceived expertise, opportunities for advancement, power and autonomy[74]. However, Sivey et al[71] found that earnings had a smaller effect than the amount of procedural work on specialty choice for junior doctors in Australia. Similarly, a qualitative study of Australian medical students, prevocational trainees and general practice registrars found that money and prestige had a less compelling effect on choosing general practice as a career than factors such as role models, scope of practice and connection to patients[40].

Other professional/work factors reported as influencing choice of general practice as a specialty include the patient population characteristics of a specialty domain[75], patient contact[70] and connection with patients[40] and opportunities for private practice[70].

3.3. Training experience

Exposure to a specialty during training has been reported in many studies as important in influencing decisions about pursuing that specialty as a career. Exposure allows trainees to experience the specialty and the characteristics of teams and colleagues within a specialty[75]. Ibrahim et al[63] found a correlation between completing a clinical attachment and interest in pursuing that specialty within the areas of dermatology, paediatrics, radiology, emergency medicine and cardiothoracic surgery. A qualitative study of junior doctors in the UK found that their decisions about a specialty were informed by observation of the pressures under which specialty training doctors worked and that the type of experience, positive or negative, could affect the attractiveness of that specialty[76]. These findings were similar to that found by Nicholson et al[35] who reported that clinical placements were important in confirming or refuting choices. A New Zealand study of medical students found that different specialities had different patterns of influencing factors but the most important factor across all specialties was the experience on clinical attachments[62].

Exposure to general practice can also influence career choice. A review of the evidence of primary care placements on career choice concluded that undergraduate experiences can positively influence students towards a career in primary care and that longitudinal placements are more influential than traditional blocks[77]. Longitudinal clerkships were shown to increase the proportion of Irish medical students likely to consider a career in general practice[36]. A general practice orientated curriculum in medical school that included specific pre-clinical general practice electives, a four week general practice clerkship and a four month clinical rotation, were associated with choosing a career in general practice among a group of German medical graduates[66]. A Scottish survey of foundation doctors (interns), which explored their career intentions, found that the undergraduate general practice placement was reported as the strongest influence in favour of a career in general practice, followed by discussion with family and friends and discussions with specialty trainees[78]. A survey of junior doctors in the UK reported that a third of them agreed that

their exposure to general practice had been insufficient to consider general practice as a career option[28].

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[35]. Furthermore, Alberti et al[12] 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[16] 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[43]. O'Sullivan et al[51] 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[10]. 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[10]. 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[76] 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[40] which found that it was influential in choosing general practice, and similarly New Zealand medical students showed more interest in a career in general practice if they wanted flexibility in their career[62]. Dale et al[16] found that experience of a poor work-life balance as a trainee had a negative effect on career intentions. Work-life balance and flexibility were also associated with certain specialities. In terms of lifestyle, Australian medical students ranked dermatology, general practice and public health medicine as the top three specialities[73], and flexibility and work-life balance were seen as two of the three most common advantages of general practice[24] - a result also found in UK general practice trainees[21]. Similarly, compatibility with family life was reported as one of the top three reasons for choosing general practice for European general practice trainees[65]. A survey of final year students from seven UK medical schools found that compatibility with family life was important to those considering being GPs[63]. Interestingly, German medical graduates reported one of the common reasons for dismissing a career in general practice was perception of a heavy workload and unfavourable work-life balance[72]. Final year Israeli medical students who were more family medicine oriented were found to be more interested in a controllable lifestyle that allowed time with family and children[79].

Several studies found that specialty choice was influenced by whether medical students wanted to work in a rural area. A New Zealand study found that if a medical student intended to work in a

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

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 that specifically focuses on the perceptions of general practice by these groups. While linked to influencing factors, these perceptions tend to be generated from external sources.

A survey of general practice trainees in the UK found that their perception of workload pressures and morale within a training practice influenced their career plans, as well as the negative portrayal of general practice by the media and politicians[16]. Another UK study of junior doctors and general practice trainees reported that the most common negative comments about general practice were regarding the workload, notion of being 'just a GP', that 'GP is boring', a 'waste of training' and a 'second class' career choice[12]. General practice being boring was also one of the most common disadvantages of general practice reported by medical students in Australia[24]. These perceptions were influenced by exposure to general practice, general practice roles models, demographics of the clinician and referral behaviours. Many of the medical students in their final year at the University of Oxford felt that the structure of general practice may not be satisfying or fulfilling because of the high workload, financial pressures and externally imposed directives[14]. This study also reported that 49% of these students thought the medical school had negatively influenced their views towards general practice[14]. The role of the medical school in perceptions of general practice was also suggested by a German study[25]. They found that the attitude of the medical school towards general practice changed negatively from the beginning to the end of medical school. The negative attitudes of other specialists towards general practice has also been reported. Jones' study found that specialists viewed a trainee's choice of general practice as 'such a waste' and 'you're too good', suggesting that institutional snobbery can influence career decisions[22]. May and Roe[32] found a culture of negativity amongst medical students about general practice. Hospital specialists were seen as highly prestigious and GPs described as 'incompetent' or 'simple'. While medical students in Israel, who were not interested in general practice, perceived general practice as a boring specialty, less prestigious and not providing a reasonable income for their lifestyle[79]. Not all studies reported negative perceptions of general practice. Positive views of general practice were reported by Swedish medical students, who perceived general practice to be a good work environment[30].

3.6. Summary of influential factors on general practice

In regards to general practice as a specialty choice, the factors identified in the literature as influencing that choice in a positive or negative way are summarised in the Table 1. However, we do not know the relative weighting placed on each factor within the specialty decision-making process. While there are more positive factors associated with general practice, we are unable to determine if a negative factor such as low prestige or insufficient exposure can tip the balance against general practice when a medical student or junior doctor is making their final specialty choice. This is an area requiring further research.

The positive factors identified can be used in the promotion of rural general practice and general practice more broadly, and contribute to strategies to address the shortage in applications to general practice training in SA. The perceptions of this specialty are more difficult to address as they reflected embedded attitudes towards the specialty which are more difficult to change without significant cultural shifts by Universities, other specialities and hospitals.

Table 1: Summary of factors found to be influencing a career in general practice either positively or negatively

Influencing factors	**Positive**	**Negative**
Personal factors	• Female • White/non-white** • Secondary education in training country • Older* • Lived in a rural location* • Engaged/Married/living with a partner • Parent with postgraduate university education	• Parents not having a University degree • School leavers • Attended independent schools
Professional/work	• Breadth of practice • Continuity of care/connection with patients • Clinical diagnostic reasoning • Varied scope of practice* • Variety of work • Opportunities for private practice	• Low status/prestige • Poor remuneration • Mastering procedures • Depth of practice
Training experience	• Role models • Undergraduate experiences/placements • Longitudinal exposure/length of placement* • GP orientated curriculum	• Insufficient exposure to general practice • Poor experiences of general practice • Poor attitudes of supervisors to general practice
Other	• Flexibility • Compatibility with family life/work-life balance • Family/friends in general practice	

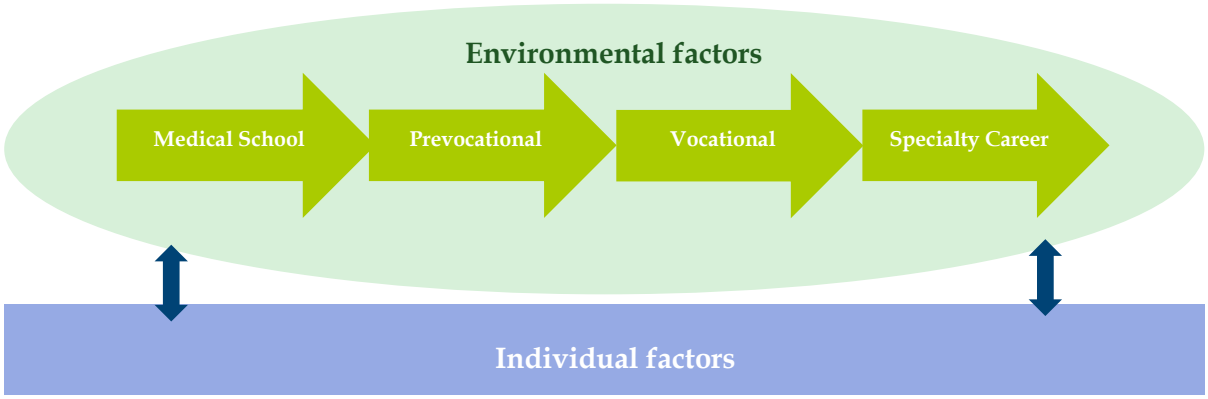
**Factors influencing a career in rural GP*
***Conflicting results from different studies*

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 training positions filled in SA (from 2018 onwards). In determining the possible year in which AGPT program applications would be impacted, it is assumed that medical graduates apply to GP training in their second postgraduate year (PGY2).

4.1. Medical school training

4.1.1. Introduction

Over recent years, we have seen a number of changes in the medical school places and the structure of medical programs. In the 2000s there was a rapid expansion of medical schools in Australia, with eight new medical schools established between 2000 and 2010[80]. More recently, we have seen a further expansion in Commonwealth Supported Places (CSP) with Curtin University's Medical program commencing in 2017. A further change is forecast in 2021 with the Murray-Darling Medical School Network commencing in Murray-Darling region of Victoria and New South Wales (NSW). However, unlike the earlier expansion, this will see only a small increase in

CSP, with the majority of places resulting from a re-allocation of CSP from existing medical schools[81].

Over this period, we have also seen major changes in the structure of medical programs, the first major change being the change from the traditional undergraduate entry to postgraduate entry programs. Currently, of the 24 medical schools in Australia, 12 are postgraduate entry only and 10 are undergraduate entry only and two are undergraduate and postgraduate entry. This also resulted in changes in the length of programs and currently five medical schools have six year programs, six are five year programs and 13 are four years programs[82]. More recently we have seen the development of Doctor of Medicine (MD) programs, with four existing in 2019[82] with other Universities moving to this structure, for example, the University of Adelaide Medical School in 2021.

At the same time, we have also seen changes in medical student demographics, in part driven by changes in the program structures, which attract different types of students. By the end of 2010 women outnumbered men in medical programs and one in five medical students had a rural background[80]. While some of these trends have changed, as will be presented in this section, it is important to consider how they may contribute to changes in specialty selection, particularly for rural general practice and general practice.

The analysis of the trends in the characteristics of the medical students, specialty preferences for final year graduates and future graduate projections has been undertaken using the Medical Education and Training data available from the Department of Health through their data tool[82] and Medical Training Review Panel Reports from 2011 to 2016[83-88]. Some of the data are only available at a national level and some available at a jurisdictional level, allowing some analysis of South Australian data.

The characteristics that were selected for this analysis included rural background, gender and projected medical graduates.

4.1.2. Rural background

The number of domestic commencing students with a rural background in SA medical schools between 2012 and 2018 is shown in Figure 8. This characteristic is worth considering as there is a large amount of research that shows that a medical graduate from a rural background is more likely to consider, or work in a rural location after completion of training[57]. However, it is important to note that in a recent study of general practice graduates in SA, rural background was not found to be a predictor of rural practice after training[89]. These contrasting findings indicate that we need to monitor this data closely to see if this trend may be changing.

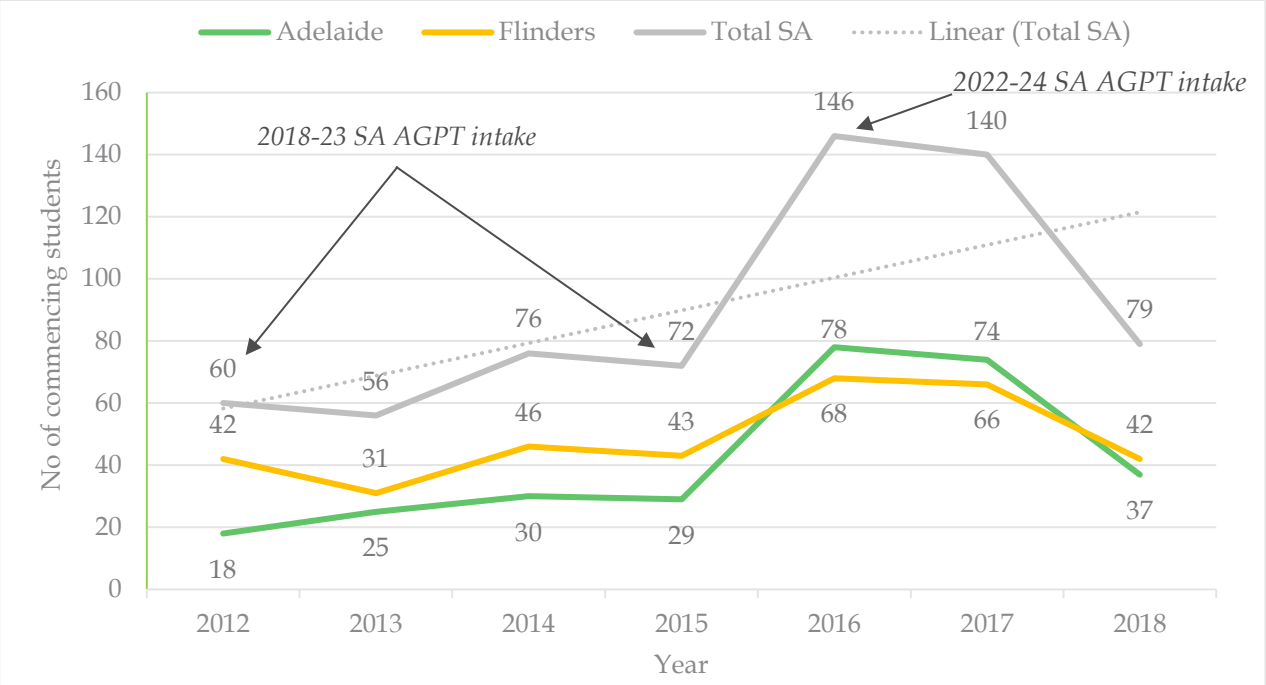
The data shows that the number of rural background students in SA has increased over this period with an upward trend (Figure 8). As a proportion of all commencing domestic students, this number has increased from 19% in 2012 to 25% in 2018. The years 2016 and 2017 saw a sharp increase in rural background students commencing in SA medical schools, nearly doubling the intake number of the prior two years, but this has been followed by a return to near pre-2016 numbers.

In terms of Universities, there has been some differences in the proportion of commencing rural background students, particularly between 2012 and 2015. In 2012, 10% of University of Adelaide commencing students had a rural background compared with 29% of Flinders University

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[65]. 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 2017-19 SA AGPT program intake, possibly contributing to the lower number of applications seen from 2019 onwards.

4.1.4. Projected graduates

The projected number of domestic medical graduates from the SA universities is shown in Figure 10. Over the projection period (2016-2021), there is a projected 10% decrease in medical graduates from 2018 to 2023. The drop in University of Adelaide graduates may relate to the over-

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 2018 may be influential on the 2021 SA AGPT program intake, while the 2016 projected number of graduates in 2016 may have some influence on the 2019 SA AGPT program intake.

Figure 9: Proportion of female medical graduates by graduate type, Australia, 2010-2017

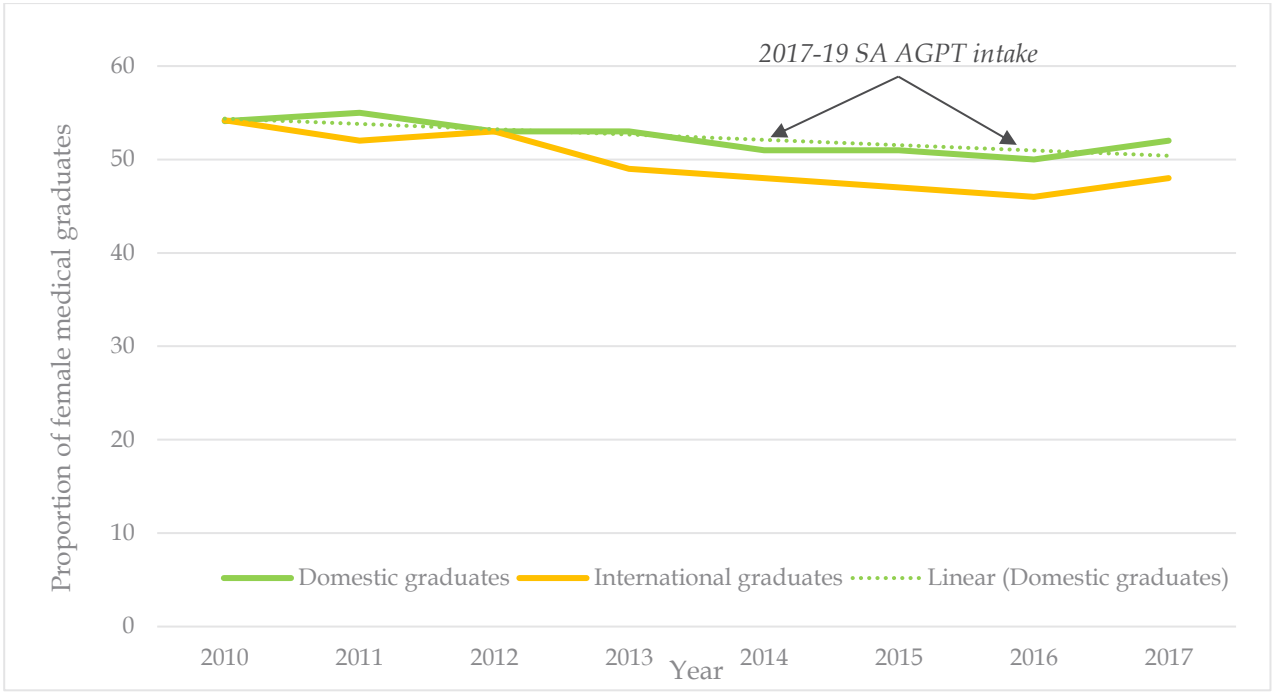
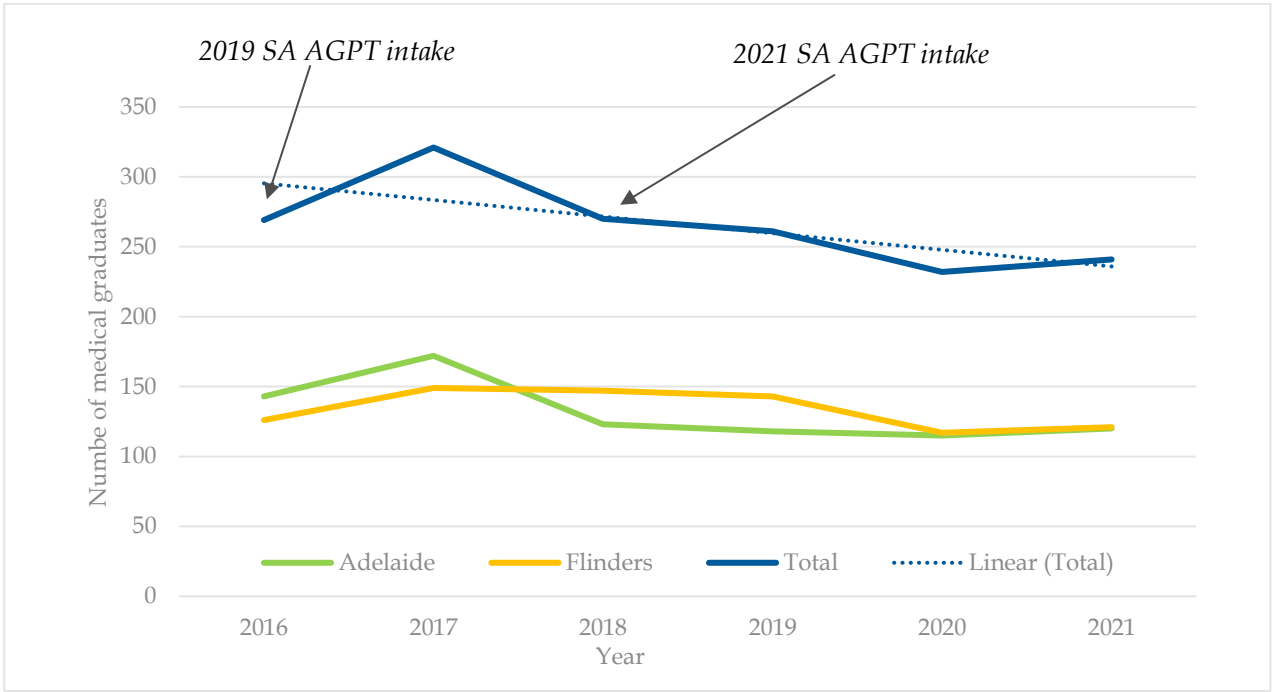


Figure 10: Projected number of domestic medical graduates, SA universities 2016-2021

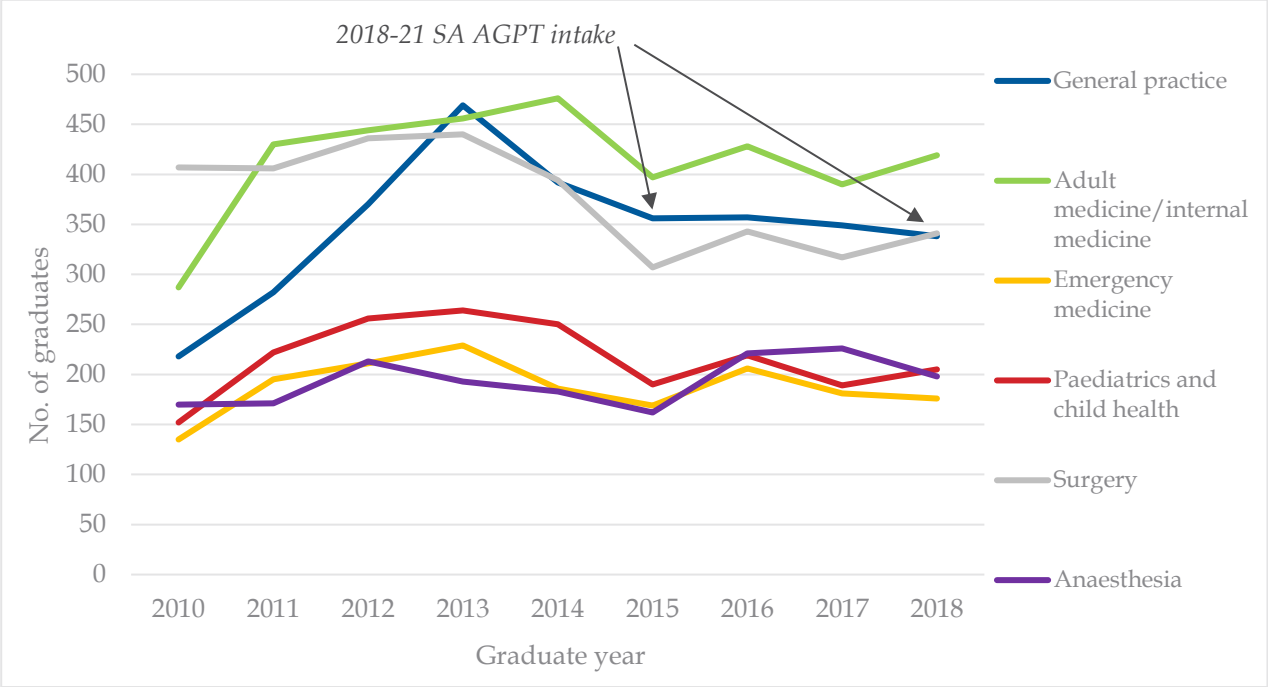


4.1.5. Specialty for future practice

As part of the Medical Education Training data, results from the Medical Student Outcomes Database (MSOD) are presented. The MSOD questionnaire asks final year medical students to rank their preferred specialty of future practice. The results for the top six ranked specialities across Australia for 2010 to 2018 is shown in Figure 11.

The top five ranked specialty preferences in 2018 were Adult medicine/internal medicine, surgery, general practice, paediatrics and child health and anaesthesia. General practice has dropped from second rank in 2015-2017 to third rank in 2018.

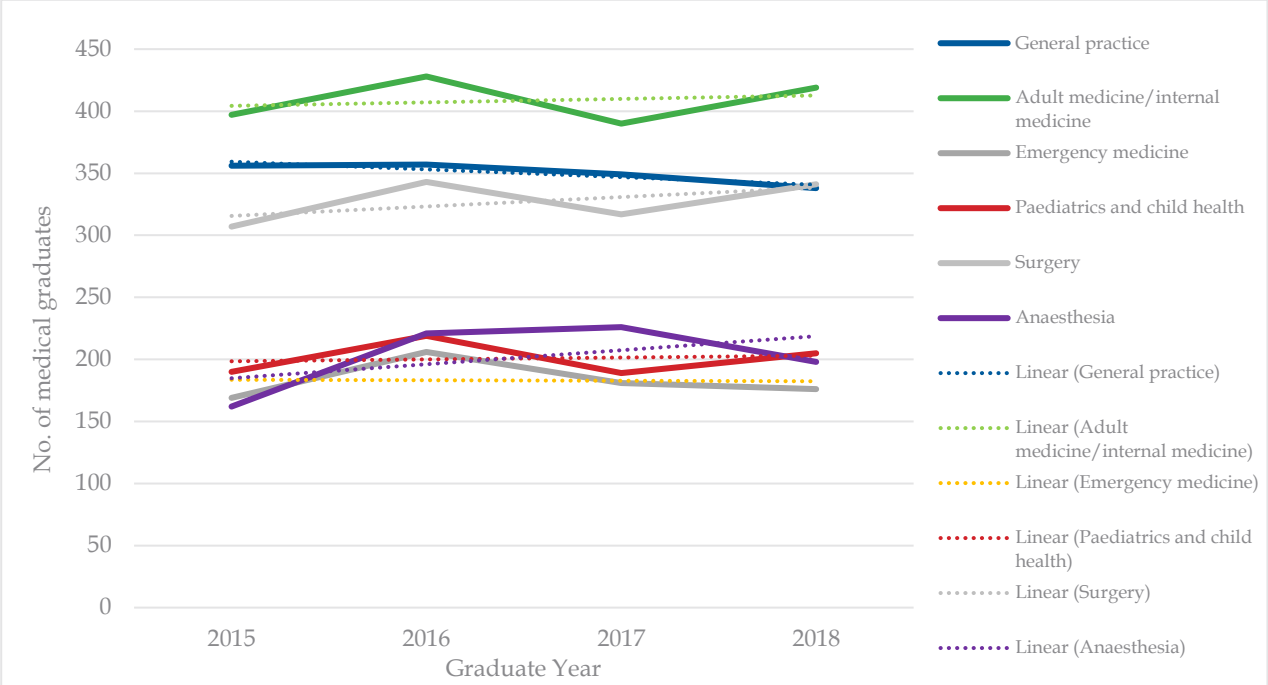
Figure 11: Medical graduates selected specialty 1st preferences, final year medical students, Australia, 2010-2018



For all specialities, there was a decrease in responses in 2015, suggesting a data quality issue. Therefore, data for the period 2015-2018 is also presented separately with trend lines (see Figure 12). Between 2015 and 2018, there has been a 5% decrease in general practice as a first preference specialty choice by final year medical student, being the only specialty of the top-ranked specialties showing a downward trend. All other top-ranked specialities have increased - adult medicine/internal medicine has increased by 6%, surgery by 11%, anaesthesia by 22%, paediatrics and child health by 8% and emergency medicine by 4% (Figure 12).

The drop in medical graduates ranking of general practice as a specialty choice from 2015 onwards may be influential in the 2018-21 SA AGPT program intake, and account for the decrease in applications.

Figure 12: Medical graduates selected specialty 1st preferences, final year medical students, Australia, 2015-2018



4.2. Prevocational training

4.2.1. Introduction

Medical graduates from Australian universities enter the workforce as interns or postgraduate year 1 (PGY1) trainees. As part of the Medical Board of Australia registration requirements they must undertake a series of accredited rotations to experience a range of clinical situations and service requirements[88]. Most prevocational trainees work for at least one or two years after their intern year before commencing a vocational or specialty training program[88]. Traditionally, most medical graduates undertake their training within the state or territory in which they undertook their medical degree[82]. Training positions are available in the teaching hospitals through the local health networks. In SA, the majority have been based in the metropolitan health networks, but in 2019 PGY1 12-month training positions with rotations into rural general practice were made available in two rural locations, Mt Gambier and Whyalla, through Rural Support Services, Department of Health and Wellbeing. This expands the opportunities provided to PGY1 trainees through the existing PGY1 training positions in Mount Gambier and the Road to Rural Intern Program managed by the Rural Doctor's Workforce Agency (RDWA), where 20 interns can undertake a 10-week rotation in Pt Lincoln, Kadina, Crystal Brook and Jamestown[90]. These positions have a similar goal, to some degree, to the successful Prevocational General Practice Placement Program (PGPPP) that was funded from the Department of Health, and delivered by the Regional Training Providers, between 2003 and 2014. They allow PGY1-2 trainees to undertake rotations in rural or urban general practice[91]. However, compared to the PGPPP program, which offered general practice placement experience to 115 prevocational doctors in 2014, there are now significantly less opportunities provided through the current models for exposure to general practice.

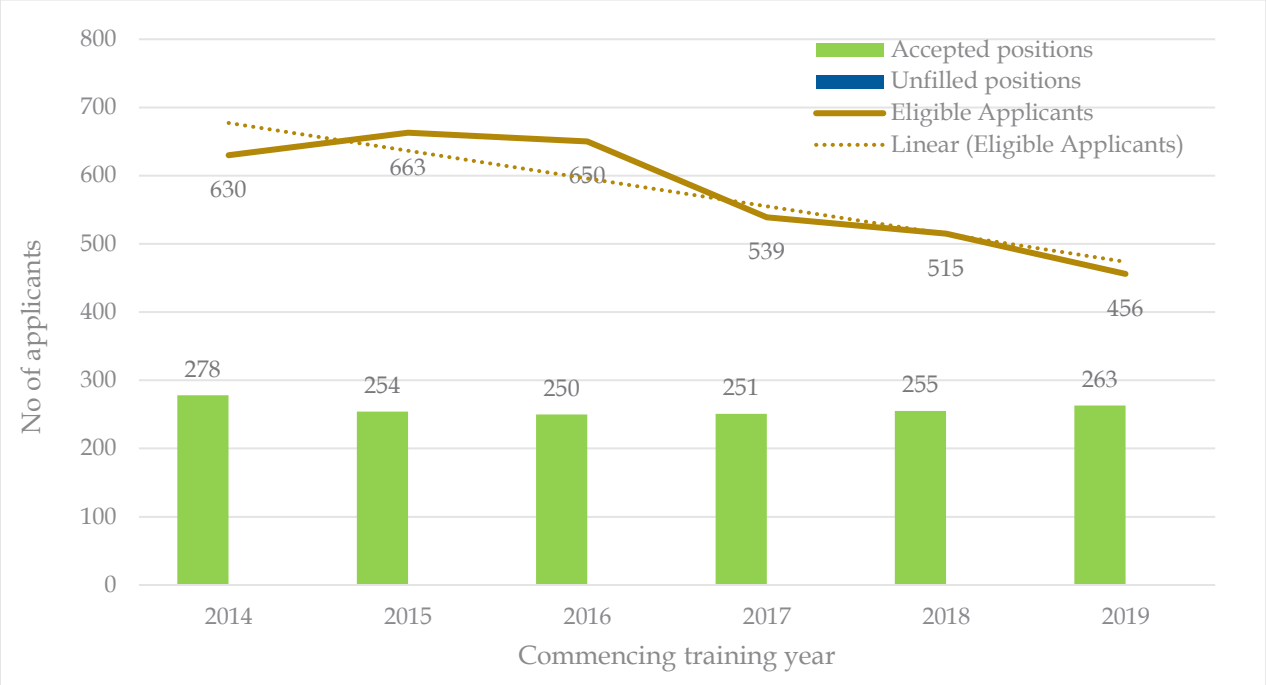
The prevocational years are important in the specialty decision-making process as the trainees are employed for the first time in medicine and they are also exposed to different specialities[92]. As such they are the feeder years into specialty training. Therefore, understanding the characteristics of 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[93-98].

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.[82] Of the SA medical graduates accepting intern positions, the majority are in the Category 1 group (Commonwealth supported graduates from SA universities)[98] (

Figure 15). Over the period, there has been a decline in the proportion of acceptances from SA medical graduates who are temporary residents.

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

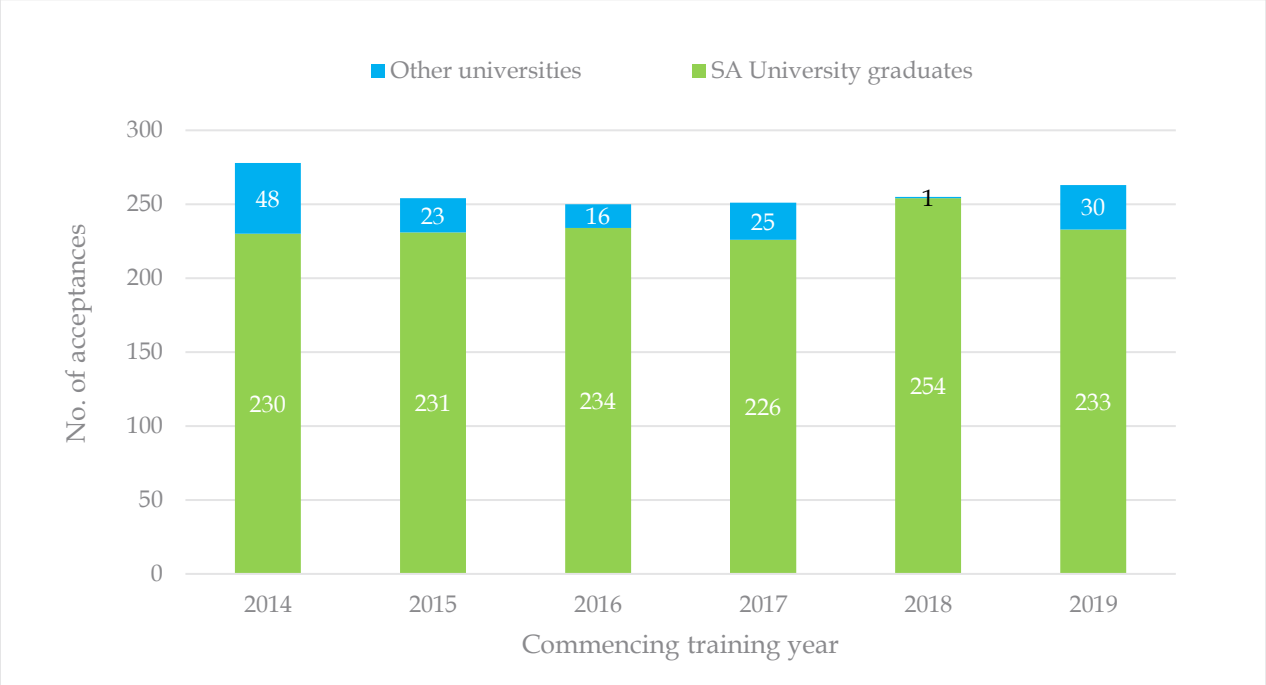


Figure 15: Number of acceptances for PGY1 SA training positions by SA medical graduates by Intern Category groups*, 2014-2019

**Category 1 (1.1, 1.2, 1.3) - Medical students from a South Australian University who are Australian Citizens, Australian Permanent Residents and New Zealand Citizens. Category 3 (3.1) - Medical students from a South Australian University who are Australian Temporary Residents and New Zealand Permanent Residents.*

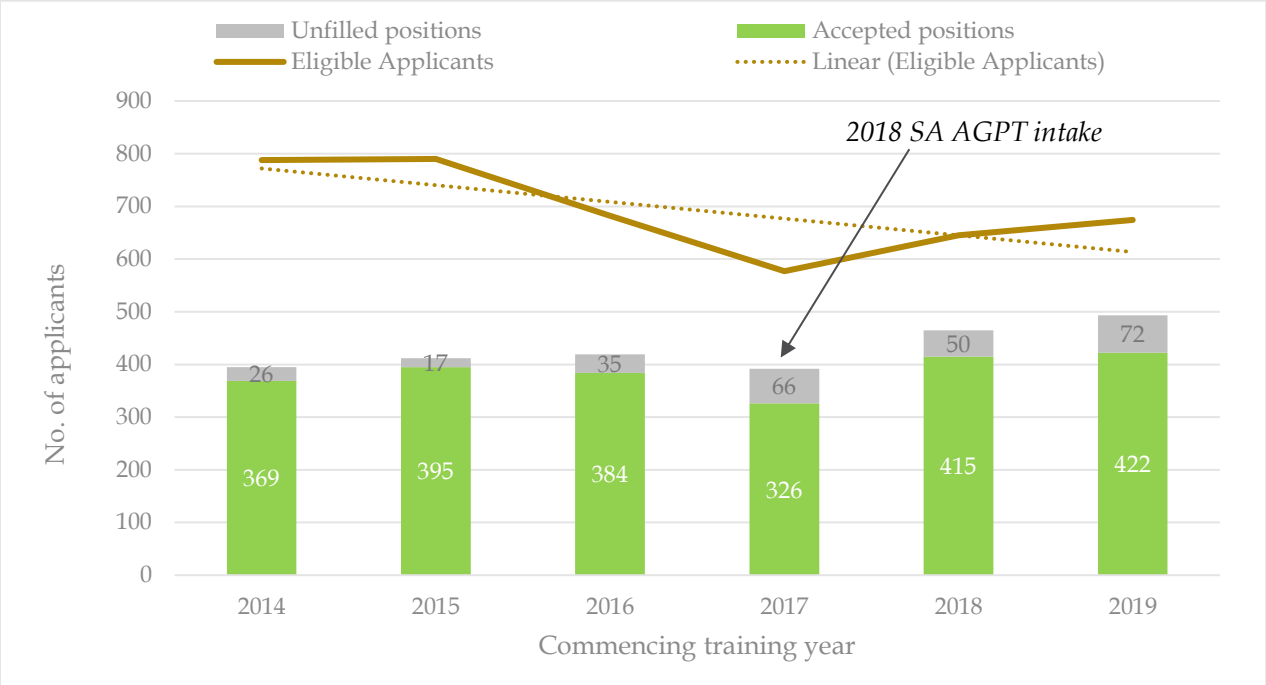
4.2.3. Applications for PGY2+ training positions

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[82]. 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[86]. 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[83 87].

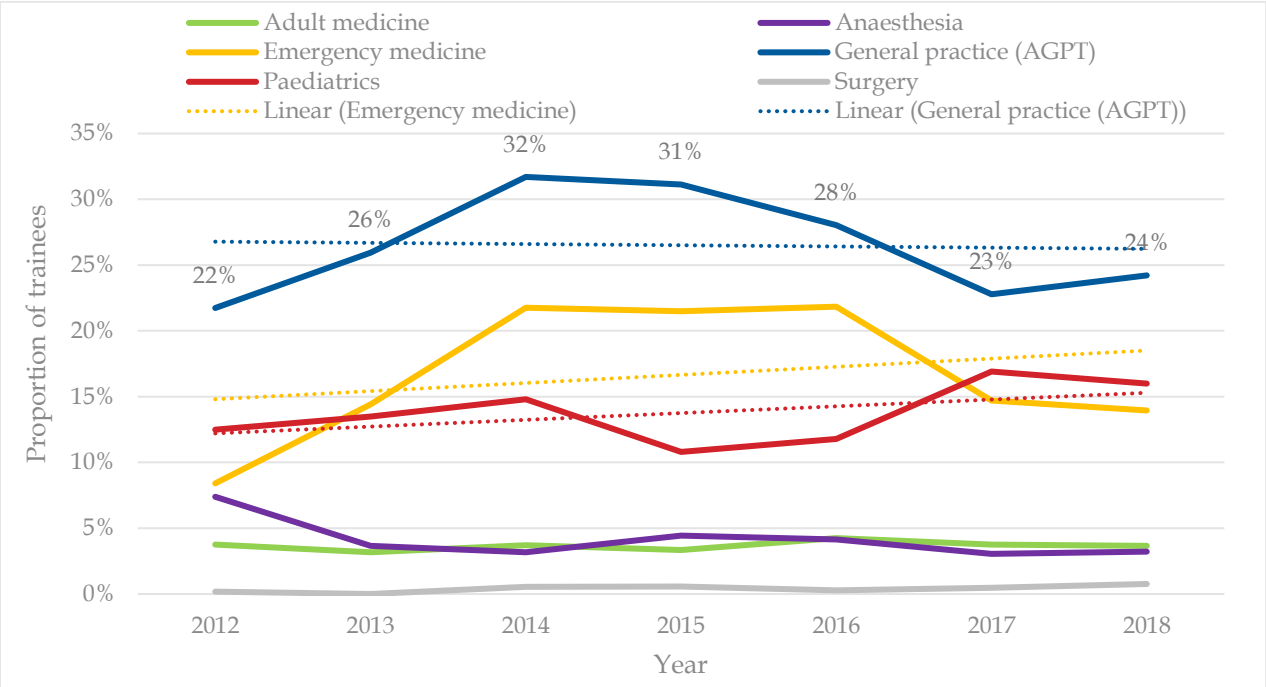
Those entering the AGPT program have tended to enter earlier in their postgraduate year levels and GP vocational training was also seen as an attractive specialty for females due to its flexibility as a career and in the training program[99]. However, changes to other specialty training programs resulting 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[82-88]. 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 trainees[88].

4.3.2. Part-time trainees

The proportion of part-time advanced trainees in six selected specialty training programs from 2012-2018 is shown in Figure 17. The AGPT program nationally has the largest proportion of part-time advanced trainees. While there have been increases and declines in the proportion of part-time trainees, the trend line for general practice indicates a small decrease over the last seven years. In contrast, the proportion of advanced trainees working part-time in paediatrics and emergency medicine programs has increased (Figure 17). This suggests that these training programs have become more amenable to part-time training, a stronghold previously held by general practice vocational training, and are now becoming an alternative option for those vocational trainees who want to train part-time.

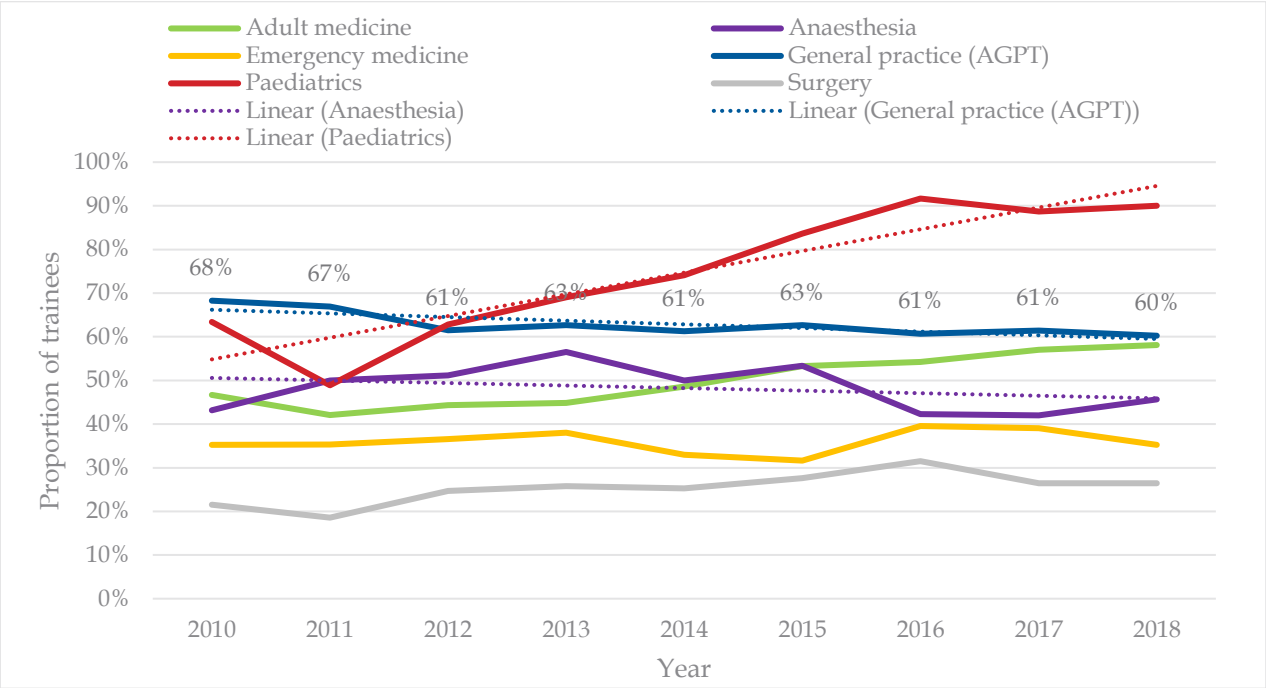
Figure 17: Proportion of part-time advanced trainees, selected specialties, Australia, 2012-2018



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 adult medicine 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

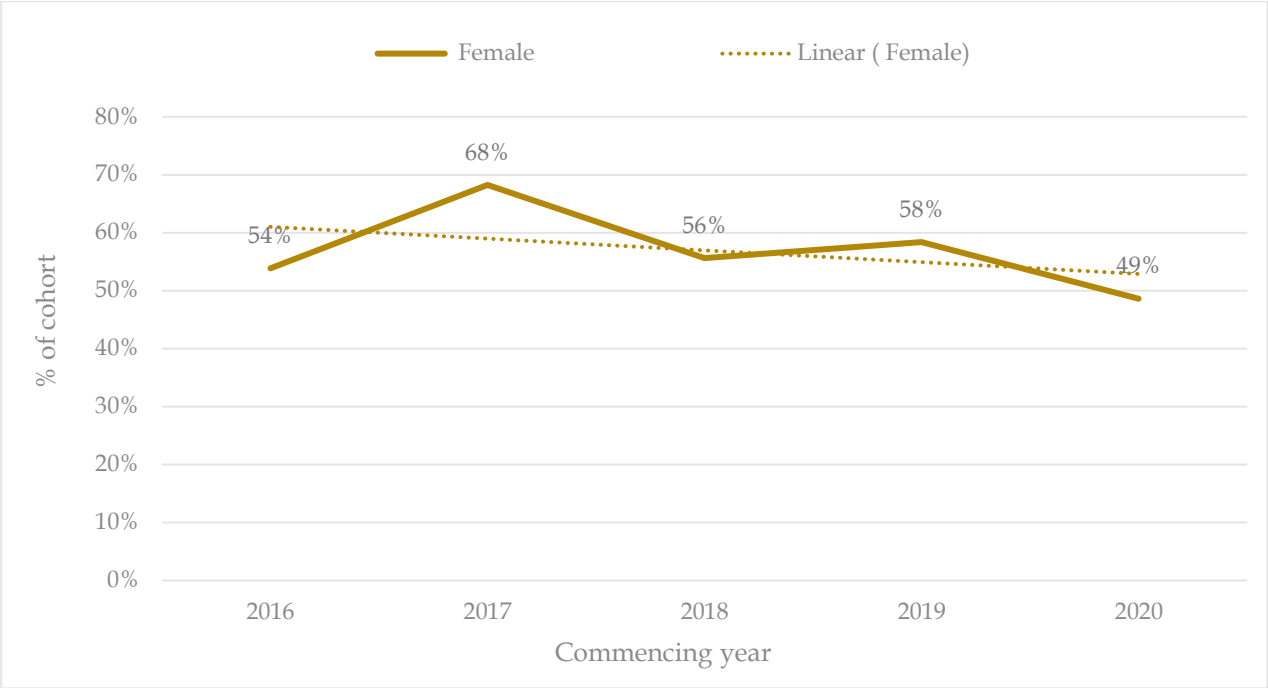
Data on the registrars commencing their AGPT program in SA over the last five years was analysed to identify any changes in the commencing cohorts over this time that may help explain the changes that occurred in applications to training in 2018 and 2019. This data was provided by GPEx. It should be 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

years, there has been a decline in the proportion of females entering the SA AGPT program from 54% in 2016 to 49% in 2020.

Figure 19: SA AGPT program commencing cohort who were female, 2016-20*

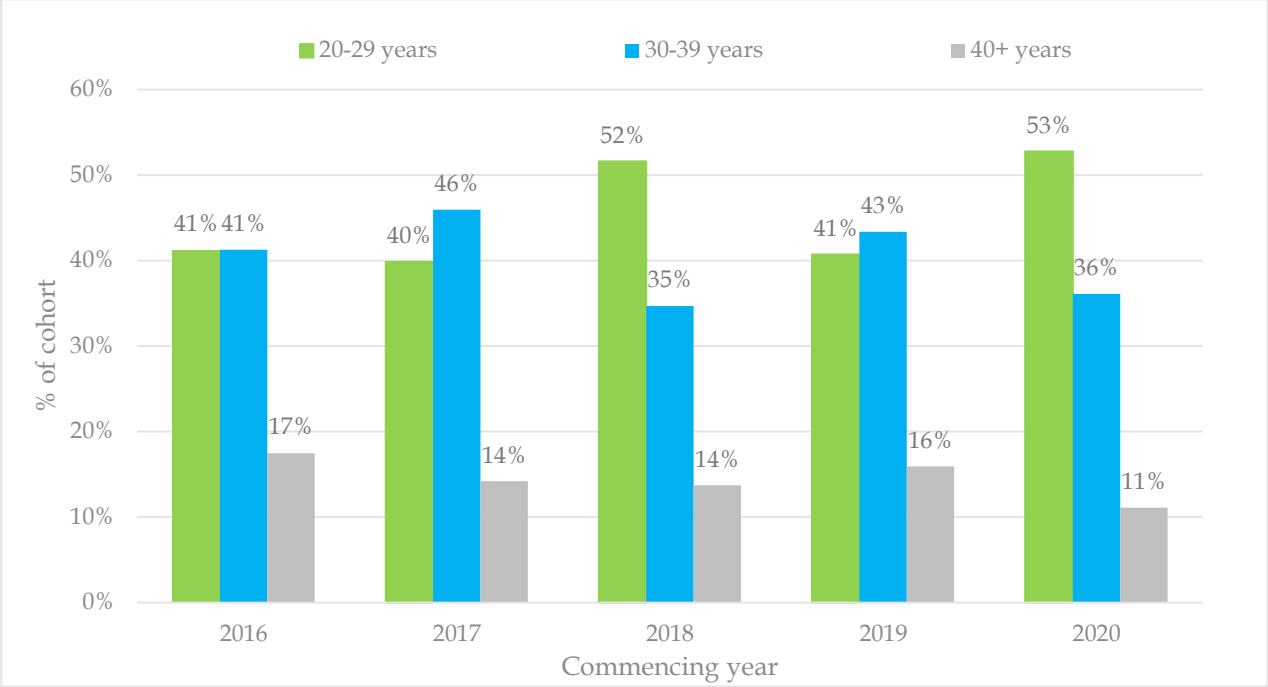


** Selection for 2020 is still underway and the 2020 commencing cohort only includes those who have accepted a position as of November 2019*

There has also been a change in the age profile of those entering the SA AGPT program between 2016 and 2020 (Figure 20). In 2016, the proportion of the commencing cohort aged 20-29 years was the same as those aged 30-39 years. By 2020, there has been a decline in the proportion of the SA AGPT program cohort aged 30-39 years and an increase in younger entrants to the program with this trend beginning in 2018 (Figure 20).

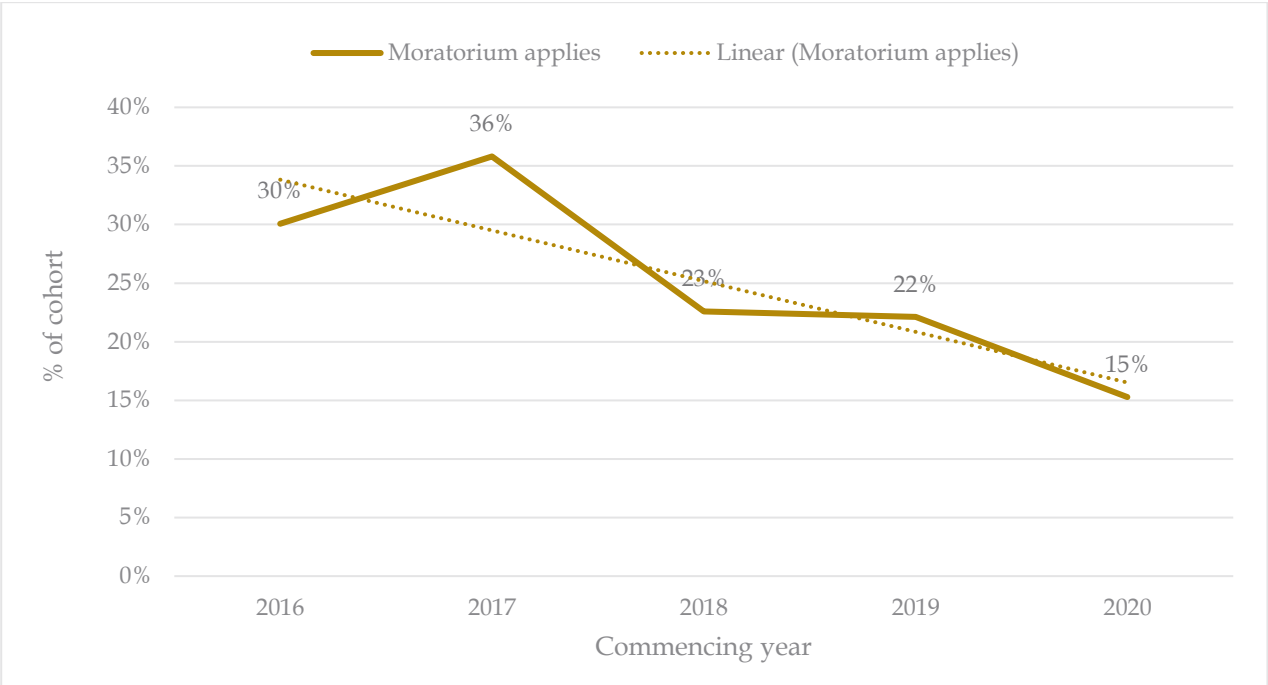
The commencement data also showed a change in the number of registrars entering the program who were subject to the moratorium (Figure 21). Between 2016 and 2018 the proportion of the commencing cohort who were subject to the moratorium has declined from 30% to 15%.

Figure 20: SA AGPT program commencing cohorts by age, 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 21: SA AGPT program commencing cohort by moratorium status, 2016-2020*

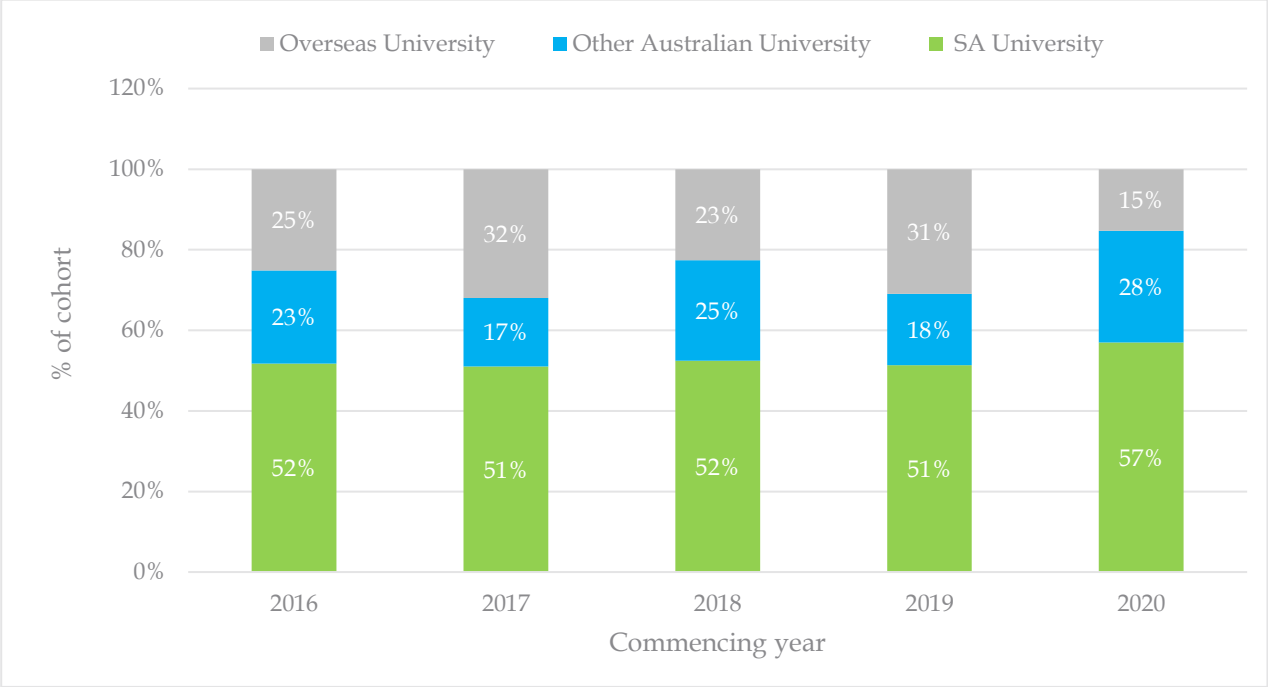


** Selection for 2020 is still underway and the 2020 commencing cohort only includes those who have accepted a position as of November 2019*

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.

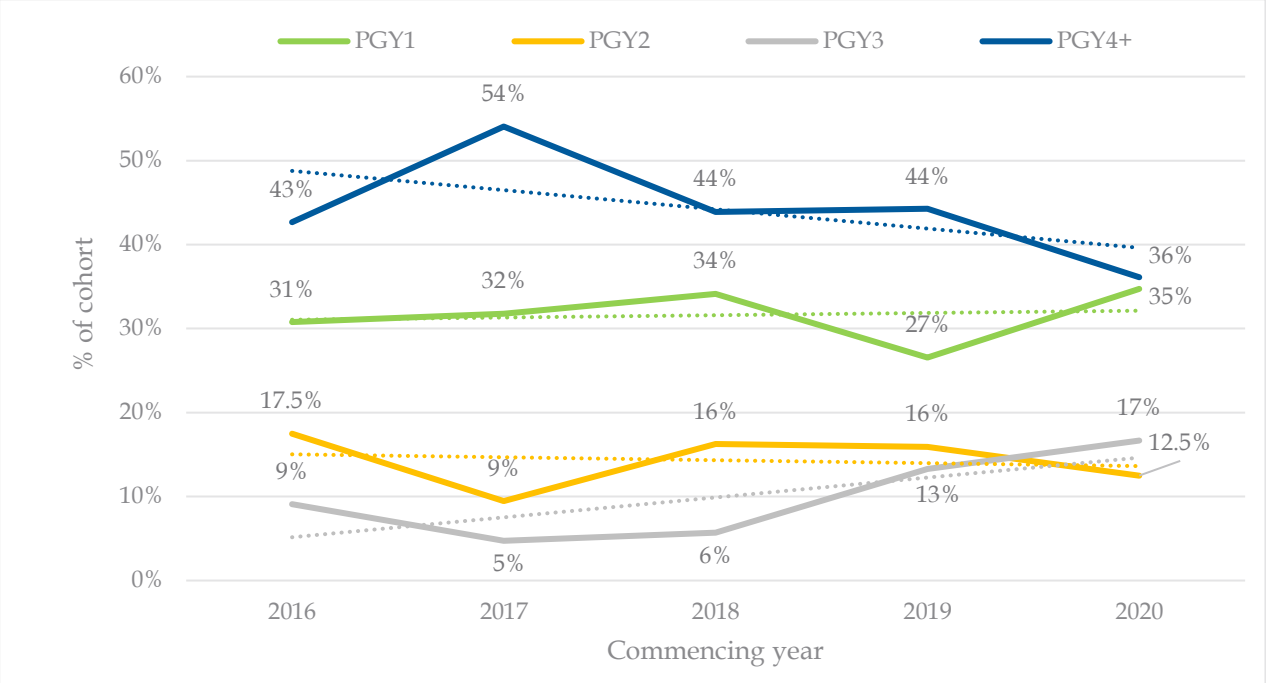
The two largest groups entering general practice training are those who apply in the PGY1 year and those who apply four or more years after completing medical school training (Figure 23). However, over the last five years there has been a decrease in the proportion of the commencing cohort entering general 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*

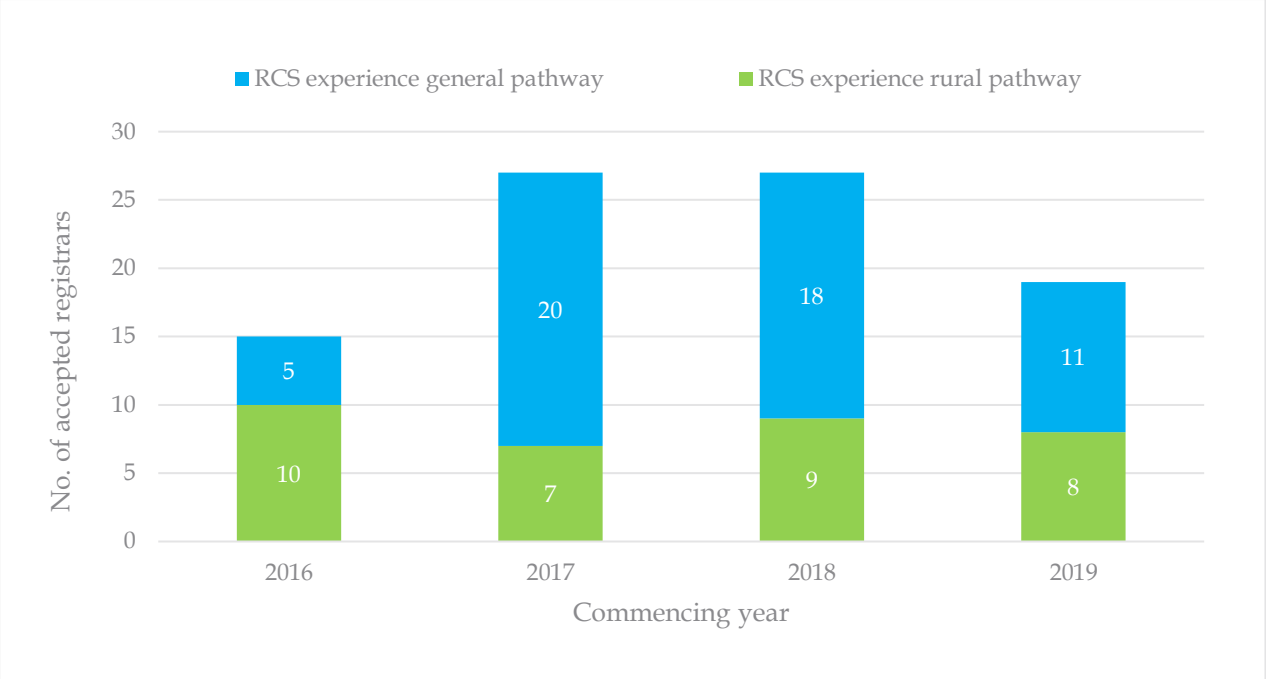
Figure 23: SA AGPT program commencing cohort by PGY application year, 2016-2020*



** 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 in the rural or general pathway. When analysed by training pathway, some differences were seen in the type of rural exposure (Figure 26). In comparison to those entering the general pathway, a greater proportion of those registrars entering the rural pathway had experience of rural health clubs (45% versus 29%), intern placement in rural area (20% versus 8%) or had a RAMUS/John Flynn or other type of scholarship (10% versus 4%) (Figure 26). For those entering the AGPT program who reported previous rural clinical school experience, there was no difference in the proportion who chose the general pathway compared with those who chose the rural pathway. There was only a small difference between those with a rural background who entered the rural pathway compared with the general pathway (20% versus 17%). A larger proportion of those who had a medical bonded place at University had enrolled in the general pathway.

Figure 25: Types of rural exposure experienced by 2020 commencing cohort, GPEx, SA (n=72)

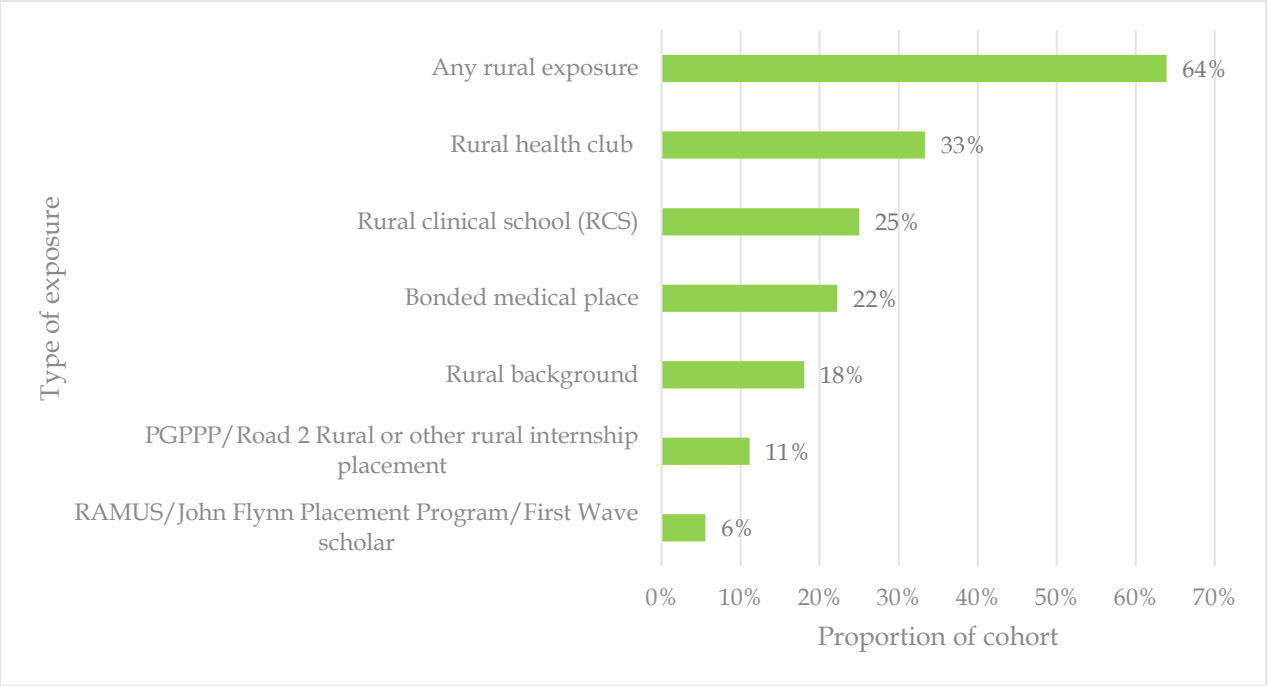
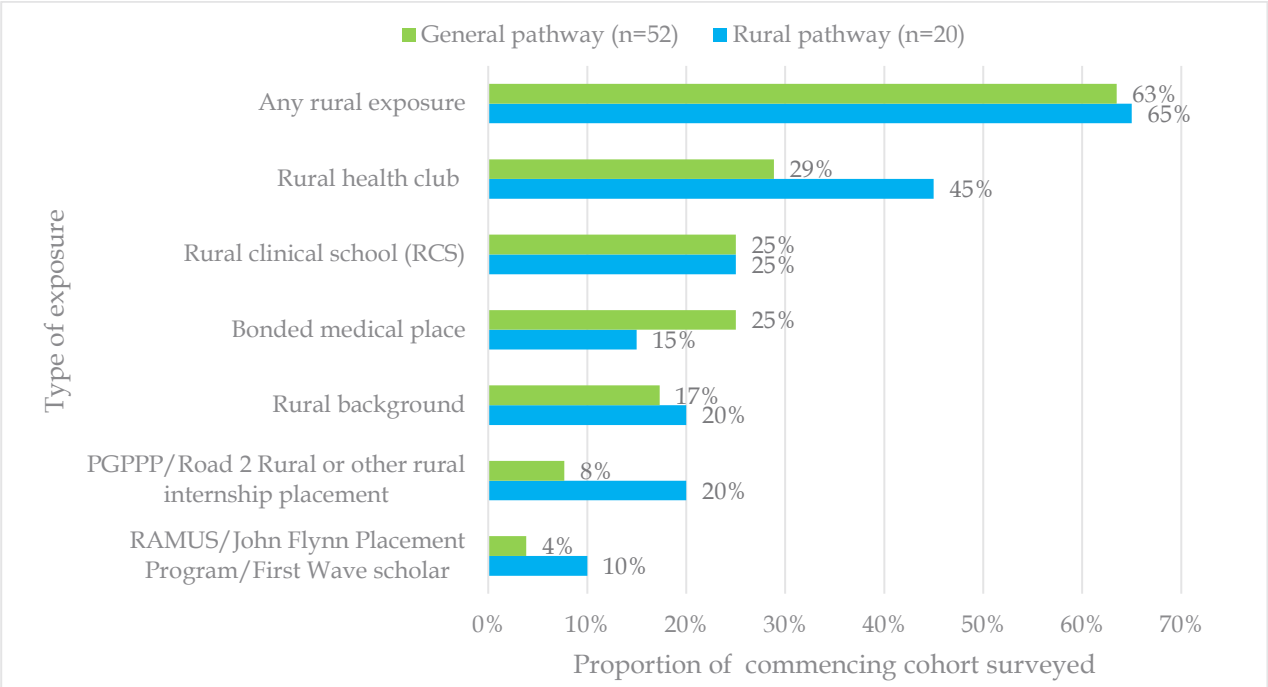
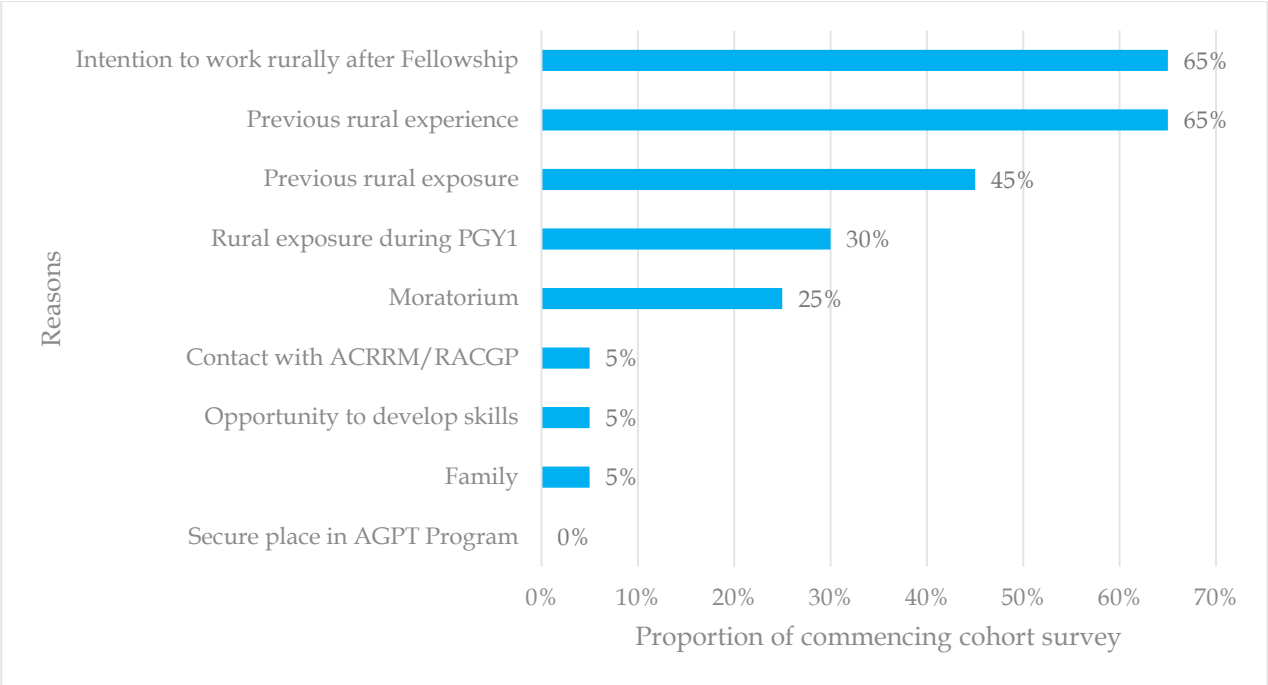


Figure 26: Types of rural exposure experienced by training pathway, 2020 commencing cohort, GPEx, SA



The 2020 SA AGPT program commencing cohort surveyed who selected the rural pathway were also asked why they chose the rural pathway and the results are shown in Figure 27. The most common reasons given included intention to work rurally after completion of training (65%), previous rural experience (65%) and previous rural exposure to general practice through rural clubs or other programs (45%). This supports the evidence that rural exposure is important in deciding to choose a career in rural general practice.

Figure 27: Reason for choosing rural pathway, 2020 commencing cohort, GPEx, SA



4.3.6. AGPT Registrars

Data from the annual AGPT National Registrar Survey provides some insights into career decision-making processes including timing of the decision to become a GP, and other training undertaken prior to entering the AGPT program. Data were obtained from the 2016 to 2018 surveys, although analysis was limited due to the changes in the questions asked over this time[100-102].

For the last three years, the AGPT National Registrar Survey has included a question about the hospital and other terms undertaken prior to entering the AGPT program. This data provides insights into the rural and general practice exposure, and if general practice was a second specialty choice for some registrars.

The most common term reported as being undertaken in the 2016-18 surveys was the PGPPP (Figure 28). In 2016, 33% of AGPT registrars reported undertaking a PGPPP term and over the period of 2016-2018 there was a 54% decline in the number of registrars reporting a PGPPP term, reflecting the closure of this program in 2015. The data also indicates that a small, but consistent, proportion of registrars (13% average over three years) commenced training towards another specialty before entering the AGPT program (Figure 28).

Results from the 2017-18 AGPT National Registrar Surveys indicate that more than a third of those who entered general practice training, made this decision more than one year out of medical school (Figure 29) and nearly a quarter made the decision after trying another specialty. This highlights the importance of having general practice exposure in the prevocational training year, where decisions about a specialty are being made.

Figure 28: Training terms undertaken by AGPT program registrars prior to entering the program, Australia, 2016-2018, AGPT National Registrar Survey

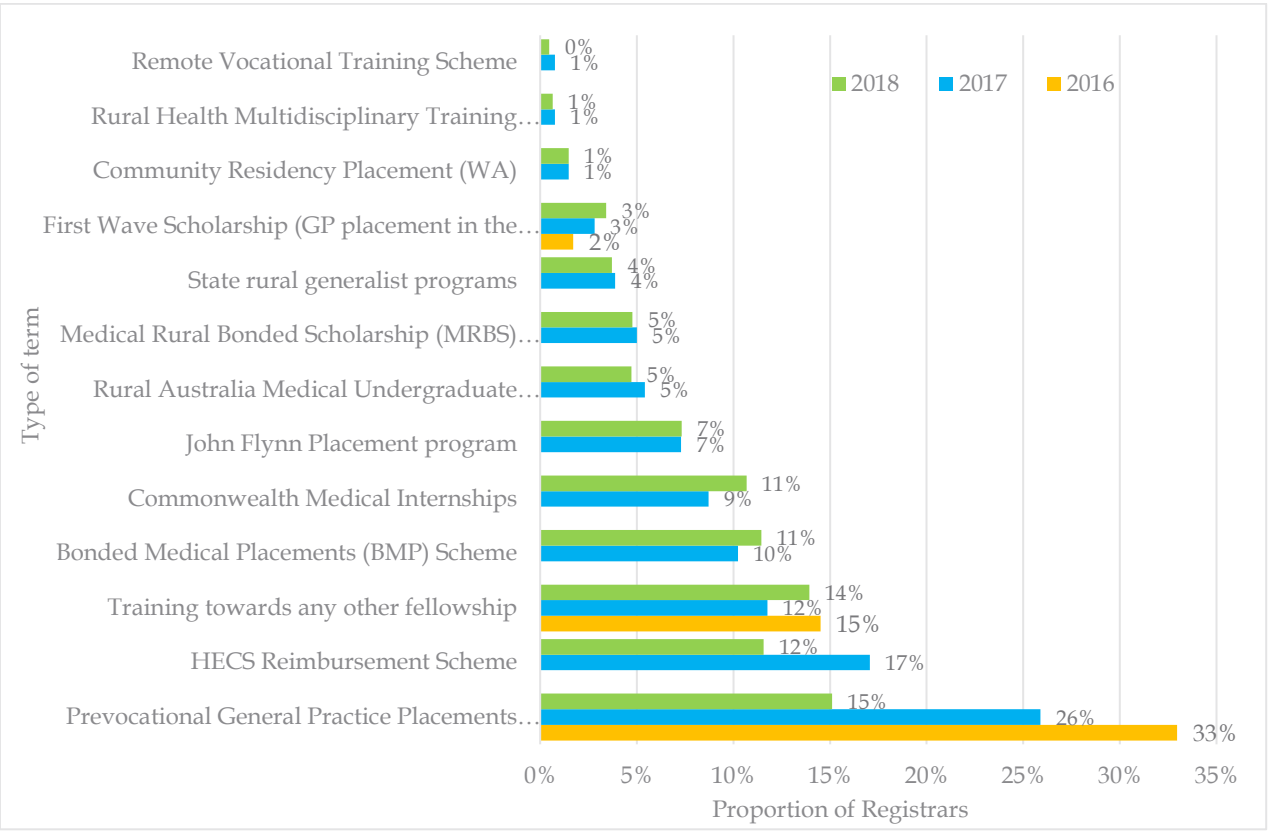
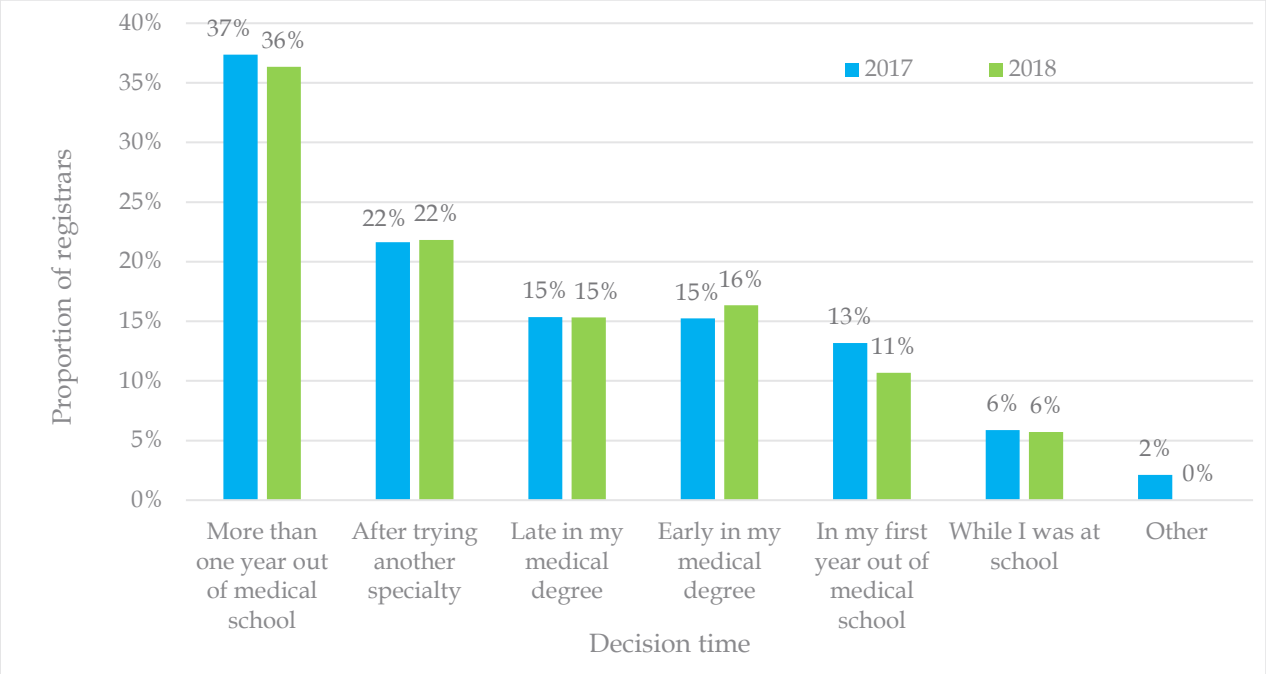


Figure 29: Timing of decision to become a GP specialist, Australia, 2017-2018, AGPT National Registrar Survey



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-time and female trainees in paediatric and child health, and adult medicine, at the same time as a decline in the proportion of female trainees entering general practice training in SA.

We can see a significant decline in the number of opportunities provided for prevocational general practice placements, and a substantial decline in GP registrars reporting previous experience in general practice at a prevocational training level (33% in 2016 compared with 15% in 2018).

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 supported by Scott's analysis of the GP specialists and other specialist workforce in 2019[103] He found that salaries for both groups have increased above the inflation rate (1.8% increase), however, other specialist earnings have grown more than those of GPs[103]. Medicare rebates are the top health policy priority area reported by 51% of GPs in the annual Royal Australian College of General Practitioners (RACGP) survey in 2019[104]. GPs are concerned about the growing gap between the cost of providing care and the Medicare rebate that impacts on the accessibility and the sustainability of general practice.

- *Corporatisation of general practice*: There has been a major shift in the last 10 years, with a trend to larger practices and the emergence of corporate ownership of practices[105 106]. Practice sizes are increasing, which can offer a wider range of services delivered by different health providers. In 2008, the proportion of GPs working in a practice with 10 or more doctors was 16% and this has increased to 27% in 2017[103], with 34% of practices in 2019 having more than 11 GPs[104]. At the same time, the proportion of GPs who own their practice is declining and Scott suggests this signals a rise in corporate ownership[106]. The Department of Health estimated in 2012, that 10-12% of practices are now corporatized[107]. There are also changes in attitude to practice ownership. Iannuzzi[108] reports that few young doctors are investing in their own practices with most being content to be employees or locums. They do not see the small financial advantage of being a practice owner as outweighing the tasks of managing a small business[108]. While the corporatisation of general practice is not as prominent within rural SA, this trend may impact on perceptions of general practice more broadly.

- *Encroachment into general practice by other health providers:* Other health professions are taking on areas of health care that have traditionally been in the domain of GPs. An example is the pharmacy profession who are now able to give some vaccinations and are wanting to widen their scope of practice to include chronic disease management and issuing of repeat prescriptions such as the contraceptive pill[109].

- *International shortage of GPs:* Several countries are facing shortages in their general practice workforce[1-4] and while implementing strategies to address this, such as increasing training positions, one short-term solution is to recruit GPs from other countries. The United Kingdom (UK) has targeted Australia to fill their general practice shortages, which can then place pressure on our own workforce.

These key contextual issues may impact on the perception and attractiveness of rural general practice and general practice and must also be considered in developing future strategy. This section outlines the findings from the stakeholder discussion, which explored these and a number

of other contextual factors which may be impacting on applications for rural SA AGPT program training.

5.2. Stakeholder Discussion

A 'round table' discussion with key stakeholders was undertaken to discuss the trends identified in the environmental scan. The key stakeholders included those involved in medical training at the two SA Universities, GPEx, Rural Clinical Schools, SA MET and Rural Support Services from the SA Department of Health and Wellbeing.

The stakeholders were asked for their opinion on what environmental factors may be influencing applications to general practice vocational training in SA. The questions they considered for each stage of the medical training pipeline are outlined in Table 2. In addition, the Stakeholder group was asked to identify any other factors they felt may contribute to a decline in interest in rural general practice and general practice more broadly as a career choice.

Table 2: Questions considered by the stakeholders

Training stage	Environmental factors to consider
Medical school	1. Is the change in medical program structure having an impact? 2. What is the impact of the changing profile of medical students? 3. What will be the impact of re-allocation of medical school places? 4. Is exposure to general practice /rural general practice during medical school an issue? Is it increasing or decreasing? 5. Are we seeing short-term trends or long-term trends?
Prevocational	1. Has the loss of exposure to rural general practice and general practice at the prevocational level had an impact? • Role of PGPPP (2003-2014): the effect on general practice applications? • Will the intern rural pathway address this? 2. Are other specialities locking prevocational trainees into training pathways sooner? 3. Are general practice trainees getting poor hospital placements? 4. What is impact of the loss of Directors of General Practice Training as advocates for training in the hospital system?
Vocational	1. What is the effect of the changes in vocational training in recent years? • Changes in selection process • Role of Colleges in the process • Application fee • Management changes: RTPs to RTOs to Colleges • Delay in applying to general practice training (PGY2 vs PGY3) 2. Are other specialty programs competing for the same applicants? • Part-time training options in other specialties • Sub-specialisations more attractive

Training stage	Environmental factors to consider
	• Leave and other entitlements available in the hospital during vocational training
	3. Is the pattern of decreasing applications a short- or long-term trend?
General practice	1. Is the general practice business model a deterrent?
	2. Salaries/income levels
	3. Medicare freeze (2014-2019)
	4. Extended hours
	5. Corporates
	6. Undervaluing rural general practice/general practice
	7. Perception by the public
	8. Perception by the profession
	9. Is the quality of rural hospitals having an impact?

5.2.1. Medical school training

The stakeholders discussed a number of issues relevant to medical school training and these are summarised below.

- In addition to changes in demographic characteristics, there has also been a change in the resilience of students. This makes them less confident to engage in experiences outside the confines of the city, such as rural general practice, preferring to work in the safety of a large metropolitan hospital. The profile of the students, particularly at Flinders has changed since the graduate entry program was introduced. In the early years, there was diversity in the backgrounds of the medical students, but now the most common pathway to the medical program at Flinders is through the Bachelor of Medical Science and as a result the student profile has become more uniform.
- Connectivity is of importance to current medical students and junior doctors. The availability of Wi-Fi when on rural placements is an issue for some, which can deter interest in this specialty.
- At a recent presentation to final year medical students at one of the Universities, the students expressed concerns that there may not be sufficient policies and procedures in place at rural hospitals. There seems to be the perception that rural hospitals are not as well run as metropolitan hospitals.
- The stakeholders questioned whether we had "gotten lazy" in promoting rural general practice training. Do we assume doctors know what it is about and what they will have access to, when actually they do not know?
- Exposure to rural general practice and general practice was discussed. The Rural Clinical Schools provide opportunities for longer exposure to rural general practice, but their structure has not changed for a long time and may need refreshing. At Flinders University, students were exposed to general practice for 30 half days in 3rd year (three weeks in total) while at the University of Adelaide, exposure occurred in the clinical years and was limited to Year 5 where general practice forms part of a community rotation, which is shared with

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. Prevocational training

The prevocational training issues discussed by the stakeholders are summarised below.

- Exposure to rural general practice and general practice more broadly during hospital training was seen as vital. The stakeholders reported that the loss of the PGPPP has had a significant impact. The PGPPP program has often been cited during the selection interviews as a motivator for joining the AGPT program. The hospitals are keen to start these rotations up again. The PGPPP positions led to connections between potential AGPT program applicants and Regional Training Organisations from an early stage. PGPPP was a recognised brand that was well supported, very well-funded, not systematised, and safe for everybody. Feedback on the Rural Health Workforce Strategy consultations is indicating that loss of PGPPP has impacted on the workforce issues across rural and metropolitan sites. Even urban rotations encouraged applications for rural general practice because they gave 19AB[2] doctors the opportunity to be placed within metropolitan general practices, and hence see themselves working in general practice as a career, which then for some translated to rural general practice. It gave junior doctors an opportunity to experience general practice in a supportive environment, prior to committing, as they do with every other specialty. Now there are limited options for that exposure to general practice at the prevocational training level. In addition, the current exposure does not link with the Regional[3] Training Organisation who can connect the pre-vocational space and

[2] Usually international medical graduates bound by the 10-year moratorium.

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 previously involved in PGPPP to see if a financially viable option can be found. While there are now some opportunities for interns to experience rural general practice, access to these placements is limited and may be perceived as fragmented, with different organisations managing the placements (SA Department of Health & Wellbeing and RDWA). It was felt that this could contribute to some confusion in regard to these opportunities among trainees and potentially negatively impact uptake of such positions. It was felt that there needed to be opportunities for development of a relationship between prevocational trainees taking up these positions and the Regional Training Organisation.
- The stakeholders believed there was a need to rotate junior doctors and registrars out of city hospitals to give them a taste of general practice. The group felt the PGPPP model should be reviewed and adapted in consultation with the relevant stakeholders to plan a viable general practice placement program for prevocational trainees.
- The Divisions of General Practice provided support to medical students and junior doctors placed in general practice and especially within rural general practice placements. The Divisions have now been defunded and this support is missing.
- Micro-aggression from other doctors in the hospital system regarding the low prestige of general practice and lack of respect for GPs, will have a negative impact on career decision-making. This is also supported by the literature.
- The stakeholders felt there is a 'lost generation' of doctors who do not get into their specialty of choice. These doctors tend to float through the system as either locums, service registrars or career medical officers, while others move interstate to get their preference. The stakeholders felt we are looking at a generation that looks for what people can do for them. For doctors who remain the hospital without being in a specialty training program, they can pick and choose shifts and are paid well.
- Other prevocational trainees are staying in the hospital system by choice in order to gain more experience and improve their chances of getting into their preferred specialty training program. Staying in the hospital for this reason is becoming normalised and there are lucrative options for them in the hospital. There was a strong belief that the further a trainee gets into the hospital system, the harder it is to access exposure to general practice.
- Access to appropriate hospital rotations is important to ensure those intending to practise in the country have the necessary skills. It was viewed that trainees intending to go into rural general practice are not being allocated the necessary rotations (e.g. paediatrics, anaesthetics and obstetrics). Also, the College standards make it difficult to be flexible in the rotations that trainees needed to undertake. There was acknowledgement that there has been some improvement in the matching of rotations to the trainees' needs.

5.2.3. Vocational training

At the vocational training level, the stakeholders discussed several issues that could be impacting on choosing rural general practice and general practice more broadly as a specialty choice. The issues are summarised below.

- 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. Stakeholders thought that potential applicants may think that the Australian College of Rural and Remote Medicine (ACRRM) provided the only way to become a rural GP. The addition of the rural generalist pathway could feed into this confusion.
- Additionally, registrars are now required to select their curriculum (RACGP and/or ACRRM) upon application to general practice training, despite them not being completely sure about what the two Colleges offer and how they are involved in AGPT program. This may then deter applicants for general practice.
- Rural generalism is being planned, and the group discussed how it could be implemented successfully in South Australia. This program may work well if funded, but there is a risk of funding decreasing or being stopped. South Australian rural hospitals are not set up to provide junior doctors with the depth and breadth of practice they are required to have under rural generalism. The group felt that further planning with the relevant SA stakeholders was critical.
- When GPET were defunded in 2014 and the Department of Health took over, they took a fairly hard-line approach to the training program and flexibility within it (such as tightening up policies regarding length of time to complete training). This has been corrected now, but the Stakeholders wondered how has it affected the image of the AGPT program?
- GPEx felt that doctors may be delaying their decisions to apply to general practice training. The delay could be due to the holding pattern of those doctors who do not get into other training programs. There are also some who have been enrolled in other programs such as physician training, anaesthetics, paediatrics, and who then apply to general practice

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 not lose the ability to accommodate rural placements for general pathway registrars and positively influence them during their training to consider rural general practice as a career.
- With RACGP and ACRRM now becoming responsible for the AGPT program this has meant that there is no coordinated messaging around rural general practice and general practice as a career, with each College responsible for their own marketing.
- Marketing seems to promote the 'super doctor', not the breadth of rural general practice. The stakeholders questioned whether this is putting off potential applicants who feel they cannot live up to that image. We are no longer promoting broad rural general practice, which is more realistic and appropriate. The foundations of general practice are the same for urban and rural. However, the marketing message is focusing on the doctor who can do everything (eg. deliver babies, provide anaesthetics etc.) rather than working and training to meet the needs of the community. This is likely creating a barrier for urban GPs who may be interested in practising in a rural environment. The possibility was raised that rural generalism may be adding to this image.
- The stakeholders also discussed whether the AGPT program structure is meeting the needs of the current and future generation of rural GPs/GPs.

5.2.4. General practice

The perceptions of general practice were discussed by the stakeholders and are summarised below.

- Registrars are trained to be doctors, not trained to be business owners. General practice is a business, and this can make it difficult for doctors establishing themselves after graduation.
- The five years of Medicare freezes, whilst other specialties were not frozen, has created a negative image of general practice as a financially rewarding career. This inequity has a negative impact on career decision-making.
- There are a number of practices that focus on employing international medical graduates. They bulk bill and have a high throughput of patients. These practices are not always good training practices. Social media and the rise in connectivity of this generation of doctors, means that word gets around and practices gain a reputation.
- Corporatisation is changing the face of general practice. While there are not many corporate practices in rural South Australia yet, there are a few practices that could be seen to operate in a similar way. These practices operate under a different culture, with little to no obligation to provide services to the rural hospitals.
- Public perceptions of general practice were discussed. The stakeholders reported that the media does not aid the perception of general practice. There is a lot of exposure being

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 profession are sending negative messages about general practice. When medical students and junior doctors hear these messages it is likely that this will influence their decision-making.
- Whilst the rural hospitals may not have the same infrastructure as the bigger metropolitan hospitals, the intern positions in the rural hospitals are in demand, as doctors get hands-on experience in these hospitals. They then come back to the metropolitan hospitals in PGY2 to deepen their experience before joining a training program.
- In SA a number of rural towns have experienced decreasing population and thus decreasing health services. This was seen as impacting on rural general practice. The decline in GP numbers in rural South Australia is probably also being reflected across other professions in these communities. In addition, many rural communities have an ageing population, which will impact on a registrar's willingness to move there. If a country town is thriving then people are more likely to look for job opportunities there. However, the converse is also true, both for the doctors themselves, as well as for their families.
- Practice Managers have indicated that registrars are being asked to work longer hours, and on weekends, for less money. The new generation of doctors do not feel the same duty to the community to accept these working conditions.
- There is more of an awareness by future doctors around the unsustainability of the rural general practice model. They do not want to be working under these conditions, yet their communities still expect them to. It is very difficult to change community expectations. Experience has shown that in some small rural communities where the established doctor is happy with the work and the lifestyle, a registrar may have different expectations and be less comfortable with the lifestyle and work practices. This tension leads to other registrars not wanting to train at these practices.
- When alternative models of care for rural communities are considered, e.g. nurse practitioners, many perceive that these models of care are unsuitable. Ideally all communities should have access to a GP. Where this is not sustainable, stakeholders need to engage these communities in identifying the models that will satisfy their needs.
- Is it perhaps that we find ourselves in the perfect storm? Previously the negativity that has always been there could be overridden with the positive experiences of PGPPP. Now the future of rural general practice is faced with limited opportunity for prevocational exposure to general practice, coupled with the Medicare freeze, the rise in negative press and the fragmentation in the messages around rural generalism and what a rural GP is, leading to the decrease in applications to the rural pathway.

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 training to influence rural practice post-graduation.
- Several external factors were identified as contributing to a negative perception of rural general practice and general practice such as corporatisation of general practice, the freeze on Medicare fees and the encroachment of other health professions on the role of GPs.
- Viability of small rural communities in SA affecting the attractiveness of location choices for those wanting to work in rural areas.
- Recent changes in rural general practice training, in combination with a perceived lack of co-ordinated messaging across stakeholders, was felt to lead to confusion amongst potential applicants about the training pathway to rural general practice. Stakeholders felt that we needed to examine the appropriateness of our messaging based on the needs and wants of the next generation of potential applicants. They may not be attracted by the same messaging (e.g. 'super doc').
- It was suggested that we should explore alternative models of rural general practice care within rural communities that may meet the needs of the community and the needs of the next generation of potential GPs. Community consultation within this process would be vital.
- Negative messaging from the media was seen to be impacting on perceptions of general practice.
- Micro-aggression from others within the hospital system were thought to be negatively impacting perceptions of general practice.
- The next generation of potential GPs may be less resilient and have less confidence to work rurally. We need to enable access to appropriate hospital rotations and build prevocational doctors' confidence to apply for AGPT program training in rural South Australia.

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 were undertaken with each focus group representing different parts of the medical training pipeline - medical school, prevocational training and vocational training.

6.1. Methods

6.1.1. Selection and recruitment of participants

Participants were eligible for inclusion in a focus group if they were greater than 18 years and met one of the following criteria:

- Medical students in their final year (year 6) of the MBBS program at The University of Adelaide;
- Medical students in their final year (year 4) of the MD program at Flinders University;
- Prevocational medical trainees in 2019 in one of the South Australian teaching hospitals (Lyell McEwin Hospital, Modbury Hospital, Royal Adelaide Hospital, The Queen Elizabeth Hospital, Flinders Medical Centre, Women's and Children's Hospital, Whyalla Hospital and Health Service, and Mount Gambier and District Health Service);
- Vocational medical trainees enrolled in a non-GP specialist training program in 2019 in one of the South Australian teaching hospitals (Lyell McEwin Hospital, Modbury Hospital, Royal Adelaide Hospital, The Queen Elizabeth Hospital, Flinders Medical Centre, Women's and Children's Hospital); or
- Vocational trainees enrolled in the rural and general pathway of the AGPT program in South Australia through GPEx.

The recruitment for the each of the focus groups varied.

- For the medical students, an invitation to participate in a focus group was sent via an announcement on the learning management system of final year medical students at Flinders University and The University of Adelaide. The announcement included a link to the participant information sheet and consent form and a link to register their interest in participating in the study.
- For the hospital-based prevocational and vocational medical trainees, an email invitation was sent through each health network's Executive Director of Medical Services. The email included a link to the participant information sheet and consent form and a link to register their interest in participating in the study.
- For vocational trainees enrolled in the AGPT program, an email invitation was sent by GPEx. The email included a link to the participant information sheet, consent form and a to register their interest in participating in the study.

All participants received a $50 gift voucher to acknowledge their time spent contributing to the focus group.

6.1.2. Approach to analysis

This study uses a critical realist[110] 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-recorded and transcribed verbatim. Participant names were changed and location identifiers removed to protect privacy. Employing thematic analysis[111], transcripts were then initially coded, which involved an iterative process of close-reading and re-reading of each focus group transcript. This process generated the initial coding frame and coded extracts were sorted into overarching thematic categories (themes) and sub-categories (sub-themes). This method involved identifying analytically interesting and project-relevant descriptions of experiences, attitudes, and beliefs. These extracts were selected for detailed analysis and coded together under general category titles.

The question guides for the focus groups are provided in Appendix 1.

6.2. Results

Ten focus groups were conducted. Overall, 96 (female: 46; male 50) participants took part. The demographic and trainee level details of the participants are presented in Table 3.

Table 3: Demographic characteristics of participants

Training Level	Health network/Medical School/Region	Female	Male
GP registrars (general pathway)	Adelaide	8	5
Prevocational medical trainees (rural)	Flinders and Upper North LHN, Limestone Coast LHN	6	5
Medical students	University of Adelaide	3	4
Prevocational medical trainees	CALHN	2	6
Prevocational medical trainees	CALHN	6	4
Medical students	Flinders University	4	6
Prevocational medical trainees	SALHN	4	5
Prevocational medical trainees	NALHN	4	8
GP registrars (rural pathway)	Various rural locations	6	4
Vocational medical trainees	SALHN	3	3
Total		46	50

Analysis of the qualitative data constructed four key themes with associated sub-themes. A thematic map of themes and sub-themes is shown in Figure 30. Each sub-theme is treated as a popular 'discourse' or 'narrative' present within the medical community, which can shape intentions to follow specific specialty pathways.

Figure 30: Thematic map of themes and sub-themes

Thus, for the purposes of this part of the project our aim was to identify such discourses and discuss how they might function to promote rural general practice and general practice more broadly. The findings are intended to inform strategic planning by stakeholders with an interest in the promotion of rural general practice and general practice as a medical specialty among medical students and prevocational medical trainees. The discourses described here provide important insights into the kinds of experiences and thinking that are currently circulating and potentially influencing students and trainees in their choice of specialty.

6.2.1. Pivot-Points: Experiential Decision-making

It was common to hear from participants that their rotation experiences had a significant impact on their view of a particular specialty. The specialty setting, the kind of work entailed, and the quality of interactions with supervisors were all noted as impacting on the overall value of the placement. When considering the general practice rotation, the role of the supervising GP was instrumental in modelling what it might be like to work as a GP. For some participants, they valued the opportunity to 'parallel-consult'. For others, their experience was less positive, one of simply observing the GP without participating in patient consultations. Moreover, this experience was sometimes accompanied by a perception of mundanity or 'sameness' in presentations. The experiences of general practice rotations are exemplified in the following extracts from the dataset.

> *Female: Your short four or six-week placement is so dependent on where you get placed and who your mentor was at that time.*
> *(GENERAL PATHWAY GP REGISTRAR)*
>
> *Male: Yeah, I was lucky, and I had a good supervisor which was inspiring. Other people, like I can't think of any worse, because I had a terrible supervisor.*
> *(GENERAL PATHWAY GP REGISTRAR)*
>
> *Male: But I think some of the time it's just due to the placements because I know someone that had a GP placement that all they saw was patients with chronic fatigue syndrome.*
> *(MEDICAL STUDENT, FLINDERS UNIVERSITY)*
>
> *Female: Also not - like the exposures that we have to rural GP in this group, I think it's almost 50 per cent, like some of us have done a term at least in rural and then you have those kind of pockets. That's the only opportunity you get to see that side of that career, and then if there's a negative experience you kind of attach it onto that and then it's just like, 'oh well, cross that one off'.*
> *(PREVOCATIONAL MEDICAL TRAINEE, CALHN)*
>
> *Female: Of course. If you've seen one town, you've seen one town. So, it's quite literally in one town you may get patients or trainees going 'oh my gosh, I will never go there again.' But in another town, it's like, 'oh my gosh, this is the best ever.' My supervisor is lovely. She's so lovely. We joke about things we talk about things. This is awesome. So, it's like if you've seen one town, you've seen one town.*
> *(RURAL PATHWAY GP REGISTRAR)*
>
> *Female: Yeah, I think the first impressions make a really strong point. So, if you have a good first experience in a rural general practice, then it's going to make a big difference.*
> *(RURAL PATHWWAY GP REGISTRAR)*

As these extracts clearly illustrate, there is a discourse amongst this cohort that general practice placements are of a variable standard, and that a fair bit of luck is involved in acquiring a quality supervisor. The implications of these findings for attracting GPs are clear. One poor general practice rotation experience can, potentially, quash or support intentions of specialising as a GP. The implications arising for general practice training are that there could be a strong case for

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. Perceptions of training and working as a rural GP

When people make important life decisions, in the absence of, or in addition to actual experience, they often rely on peers, supervisors, and other sources of information to help envisage how a particular decision will play out into the future. Therefore, participants were asked what their perceptions of being a GP was, and how this representation fitted with their interests and perceived abilities, the criteria they would use to make their specialty decision.

Professional and social isolation

The notion of being unsupported and isolated in a rural practice or in a rural medical emergency was a concern for a number of participants. They were keenly aware that in some rural settings there are a lack of services providing critical diagnostic and emergency treatment. Being 'out of your depth' in the following extract is constructed as being exposed to criticism and having to front the coroner's court.

> *Female: I did a placement, rural, once and this was a GP that had been there for 35-40 years, and he says it still petrifies him sometimes in the middle of the night when he gets a call and he knows it's something so far out of his depth. But he's got to manage it because he knows that the city is still quite a fair way away. Then when things do go wrong, and they do at times, then it's a big coroner's case and it can be why didn't you do this, why didn't you do this? But if the support is not there and the support structure just doesn't exist, as much as things that do go to the country hospital shouldn't go to the country hospital, when they do, you've got to be able to manage them.*
> *(PREVOCATIONAL MEDICAL TRAINEE, NALHN)*

> *Female: I think what works in the background, maybe people don't think about it at the forefront of their minds, but when we practice in hospital, [risk] mitigation and kind of doing the right thing is very much a topic that we discuss all the time or we make decisions on the ward round. So, the idea of being the only kind of GP doctor that is out there, you do something wrong, like that's quite scary.*
> *(PREVOCATIONAL MEDICAL TRAINEE, CALHN)*

Arguably, 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 contention that rural medicine suffers from social isolation too. In the dataset, it was very common to hear participants raise both types of isolation.

> *Male: I certainly found it - I loved rural medicine but I really, really disliked the isolation of [rural town]. So, my end game is being a rural - I've got a very specific end game. I want to be a rural generalist, [overseas], outside of the city but nearby enough that you have access to the amenities of a city. So, my kind of - the rural range that I would be happy with is within a three-hour drive of a major centre because you get the rural experience, you get the rural medicine and you get the independence. You get all the pros of rural medicine without the cons of the isolation, the lack of access to support, the lack of access to amenities and even leisure and entertainment. So, I found that…*
>
> *Facilitator: More like a regional.*
>
> *Male: A regional rural. Yep.*
> *(MEDICAL STUDENT, UNIVERSITY OF ADELAIDE)*
>
> *Female: It's actually because where [the Focus group participant] and I were lodged, it was - you don't really need to think about it like, oh if I live, I can drive back for a weekend.*
>
> *Male: Yeah, that is the cut off for me.*
>
> *Female: But then…. [if it's] further than [rural town] it's harder unless you can fly.*
>
> *Male: If you - yeah, exactly. That's the thing, if you - I think ideal rural site is, you've got rural medicine, you've got the rural community, you've got all those benefits but it doesn't take a day of travel to get back to somewhere else and that was the thing. I came back home from [rural town] four times in six months just because it was so time prohibitive.*
>
> *Male: Whereas me and Lib were back every weekend.*
>
> *Male: Yeah, exactly.*
>
> *Male: It's incredibly difficult when you're that far away.*
> *(MEDICAL STUDENTS, UNIVERSITY OF ADELAIDE)*

Some participants differentiated between two kinds of 'rural', with one being remote and the other being much closer to a major city. This distinction was important to them because they recognised that isolation, both in terms of medical support and social isolation made it difficult to live the lifestyle they wished for and less remote areas addressed these concerns.

Social isolation was also characterised as a loss of close relationships with friends, and knowledge and skills gleaned from studying in a community that would be lost if they moved to a rural location. The potential for social and professional dislocation was deemed a deal-breaker for going rural.

> *Female: So, you build all your relationships in the metropolitan areas as well and then you've worked out your community, your patient base, you get to know how to do it and it would be a big change to spend all your years studying here, learning how to do it and*

then move. I think there are a lot of people who would happily do it for a short period of time and then because of these high rates of burnout and stuff, there are lots of people who wouldn't necessarily want to do it forever.

Male: I think I have the same thing. I spent the last two years in a regional centre in Victoria with my wife and we basically moved back to Adelaide because we're wanting to start a family and our families are here. It's not just we enjoyed working there and if it had been closer to our families in [city], then maybe we would have stayed there, but being six hours away from most of your family is not ideal when you're wanting to start your own family.

Female: Like I said earlier, I did do two months in a rural GP setting and I thought the work was quite good in their briefing but kind of similar reasons. Like, my partner works as an engineer and it's hard enough finding jobs or work in [city] for that let alone going to a community town for those kinds of things. So, I think for a lot of people, it's more about other things in your life that prevent you being able to go into the country really. (GENERAL PATHWAY GP REGISTRARS)

Working rurally was regularly discussed as problematic for maintaining close family relationships, either in the context of having children or in terms of being able to look after elderly parents. Although general practice in rural centres was generally described positively, the needs and responsibilities of family were, for the most part, prioritised over professional interests. In other parts of the dataset, those not yet ready to consider long-term relationships or children, also prioritised family and friends over the benefits of working rurally.

The barriers to working rurally that distance and isolation create are not easily addressed. However, later in this section we discuss participants' ideas about what could be done to alleviate the perceived social isolation that can accompany rural general practice. In addition, to address the perception of professional isolation, current support mechanisms for GPs in rural regions could be better communicated, and the degree of responsibility of trainees or GPs in emergencies could be clarified in reference to support and the mitigation of potential risk.

Rural general practice provides greater procedural agency

Considering the negative discourse of rural general practice as professionally isolated, how could such a discourse be challenged? How could it be re-framed as an *opportunity* instead of a risk?

The next extracts speak to the potential of rural general practice training and work as offering a greater exposure to varied medical presentations, and as an opportunity to build agency (the capacity of an individual to act independently) and develop confidence and skills. In contrast to the discourse of professional culpability and risk articulated in previous extracts, the following extracts underscore that rural general practice can offer a greater 'breadth of practice' when compared to metropolitan general practice. Participants also spoke about the value of continuity of care and the time to develop a relationship, not seen in other specialties.

Female: The community in rural is amazing. You don't get that in the city at all. Yes, the breadth of practice definitely.

Female: I think as well, you are in the city - I mean I haven't worked in the city, but I think you're probably a higher risk of deskilling with some …skills. Whereas in rural, you are - like you said, you're it, so you have to deal with everything. I think that really appeals to me as well. You keep up. You become a lot more flexible in what you can do for work outside of it if you want to do anything extra. (RURAL PATHWYA GP REGISTRARS)

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 the other thing, is I'd quite like to be rural or rural-ish but when you look at the training programs for rural GP you don't have any control really about where you go. My husband can't just up sticks and move away from the city from where he works and I don't want to drag the kids out and put them in a different

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. Arguably, the financial, social and psychological ramifications of only having one adult family member in work is not something that many couples can overlook when considering rural general practice.

The second extract is interesting (and parallels another discourse related to 'lack of choice in rural general practice placements') in that rural training placements are understood to be incompatible with family life e.g., '*I don't' want to drag my kids out and put them in a different school*'. This was a common response in our dataset from older participants and is one of the most difficult discourses to challenge or re-fashion. More family friendly models for general practice training placements and general practice work could be considered to limit the impacts that working and training rurally entail for family life.

6.2.3. Perceptions of working and training as a GP (metropolitan)

Work-life balance

Another pervasive theme in the dataset was that of a complementary balance between work and lifestyle. This theme tended to be associated with general practice more broadly, and not rural general practice specifically. It goes without saying that medical specialisation requires commitment, and those participants considering general practice as a specialisation regarded this pathway as providing a better work-life balance than other specialities. This belief seemed more prevalent among older medical students who had family and children in their short-term life plan.

Female: I'm also very motivated to limit exposure to arseholes throughout my career. So, it does cut out a few specialities to be honest. It is a balance. It's - for me, especially at my time of life having a child very soon, work-life balance is extremely important. If I was 25 I think my priorities would have been so different. I would have been like oh, this isn't interesting enough. I need - I want more challenges. I want this and that. Whereas now number one priority is I want enough time to spend with my family because otherwise you just - I won't see myself as being a happy person.
(MEDICAL STUDENT, FLINDERS UNIVERSITY)

Female: The GPs who I know, who works in the city now, in the non-rural context, they really love their work-life balance, and I know we've all thrown that phrase around a few times. But it does just seem pretty good. That's not to say that they're paid particularly exorbitantly. I think when you break down the kind of work and training that they do, compared to the pay they receive, it's not at all lucrative. It's more just that they have - these people tend to have really supportive and flexible workplaces, with relatively manageable hours, and none of this on-call, or staying up to do your thesis, or having to cover sick leave and all this sort of stuff that some of the other specialty training programs just kind of necessitate. That's a big pro.
(PREVOCATIONAL MEDICAL TRAINEE, SALHN)

The first extract alludes to the idea that as a person matures, they begin to recalibrate their priorities, and work interests (e.g. 'challenges') fall more into balance with the goals of having children and spending time with family. It was implicit in many of the focus groups that specialities such as surgery and orthopaedics could not deliver a work-life balance (even in later phases of a career) and that general practice could. Adding to this discourse, the second extract

highlights that there is a perceived trade-off for a good work-life balance, yet, the benefits of a sustainable work culture, no on-call, reasonable hours, and other lifestyle benefits outweigh a comparative reduction in pay.

There was a common belief shared by participants that training in specialities other than general practice (and psychiatry) had characteristics that were incompatible with family life and, indeed, a happy life. The following extract is an example:

> *Facilitator: What do you think the perception of the GP trajectory or the GP job is amongst your cohort? Amongst the people that you work with generally?*
>
> *Male: I think what I've seen is, the people who - at least the ones that are slightly senior to us, trying to apply for training programs, always have GP mates and they're like, they're just so much happier than we are.*
>
> *Male: So like, I did have an interest in surgery, but I didn't want to go through the 10 year plus training program to then have to be fighting for jobs. But I can still do a bit of procedural stuff in GP and I have an interest in skin cancer management stuff. So, a bit of going on that. Then I guess the big factor for me as well is the flexible lifestyle that allows and that you can pretty much travel around the country and you should be able to find work pretty easily are all the factors that sort of supported me in going along this way.*
> *(MEDICAL STUDENT, UNIVERSITY OF ADELAIDE)*

Again, highly competitive specialities that require '10 years plus' to become a consultant are contrasted with those in general practice training who are 'much happier'. The idea of a long training period and then having to 'fight for jobs' was a pivotal factor in turning this participant to general practice, where he could still engage in procedural practices and follow his interest in skin cancer management, as well as enable a lifestyle that included travel.

Mundanity and patient 'churn'

A pervasive negative characterisation of metropolitan general practice described the work as mundane, repetitive, and not particularly challenging. This discourse represents a highly problematic image for attracting metropolitan GPs, largely because it is composed of a number of undesirable work characteristics: lack of status and agency, boredom, and even being part of a larger general practice system that is complicit in providing an ethically dubious service to the community. The next two extracts exemplify this discourse.

> *Female: But some GPs will see like 40 or 50 patients a day or something and just like earn heaps, and then I'm sure that they'll be some specialists who earn less than that. It's just about how you manage your money as well.*
>
> *Female: But are those people providing good patient care?*
>
> *Female: Oh, who knows? They're being paid for it.*
>
> *Female: Five minutes, come in, here's your script, [unclear].*
>
> *Female: I know. How do you sleep at night, right? That's the decision for everything, like how you make your life decisions, what you want to do with your specialty is like how you - can you sleep with your decision at night?*
> *(PREVOCATIONAL MEDICAL TRAINEES, NALHN)*
>
> *Female: The second thing it was, again, very business-orientated, seven to 15 minutes with a patient, and you've got to let them out. It wasn't really like a very - I thought a very satisfying experience.*
>
> *Female: Or holistic.*

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 that's all you're really doing. People are like, 'I want a sick note' or 'I want a referral to see the real doctor'. I feel in rural, people are just really glad that there's someone who is there willing to see them and look after them. I think that they trust you with their health a lot more.

Male: Yep, I agree.

Female: I'd be bored if I had to work in the city, I think. (RURAL PATHWAY GP REGISTRARS)

There is, we suggest, some work to be done to rehabilitate the image of the metropolitan general practice (often associated with large, bulk- billing clinics). Key among the discourses that require remedying is that GPs are not afforded meaningful influence over the health status of their patients e.g., 'just a referral pathway'. There are a number of counter-narratives available to challenge this particularly uninspiring rendition of general practice. For instance, the GP can foster long-term relationships with patients that last for many years, where trust and rapport are cultivated over time, and the role of the GP to guide the patient through his/her life becomes highly rewarding. GPs can also work with whole families, seeing parents, children and extended family. Continuum of care can be very rare in other specialisations and is a rhetorically useful discourse to counter general practice as mundane and repetitive.

From a rural general practice perspective, it is also important that we promote the interesting medicine, sense of agency and opportunity to have a high level of control over the care given to your patients.

GPs earn significantly less than other specialities

Remuneration for GPs was not a topic that came up as often as we might have thought, especially when considering previous research. Nevertheless, we tend to think that this could be due to social and professional norms around not talking about money as a factor choosing a medical career. However, when the topic of money did arise, the discourse contrasted what GPs and other specialists earn.

In fact, there was considerable debate about what GPs earned. In one such instance a prevocational trainee suggested that GPs could earn less than the 'minimum wage' when considering how many hours they worked and their total remuneration.

Male: My student year in [rural town], and one of the GPs there sat us down and went through the economics of being a GP in [rural town], where you don't do hospital cover, and at the end of the day you were earning less than minimum wage.

Male: What?

Male: Not a very encouraging teacher for a GP practice, but…

Male: No, no.

Male: I don't suppose this would be - some of the other specialties afford you the chance to merge public and private practice. You can set yourself up in your own rooms, from a surgical point of view, or you can join a practice or consortium and then you can have a

mix of both. I would say, if you're thinking about it, how much money you want to make, or how much money you can make, that's clearly going to be advantageous.

Male: Yes.
(PREVOCATIONAL MEDICAL TRAINEES, CALHN)

It was not uncommon to hear participants speak of the advantage that other specialists have in being able to mix public and private work, do overtime and earn penalty rates. It was assumed that GPs did not have this opportunity and, if they did, they would have to supplement their general practice earnings with overnight shifts, for example, in psychiatric hospitals. The following extract bears this out.

Female: It might be more attractive to know exactly what a GP is [earning]. I mean, instead of it's kind of being - I have no idea what they are, and I guess that - a lot of people does factor in. What do we need - because there's a guy who is a GP and he said locums at [a health facility] on the weekends, does the 12 - overnight shift. That makes you think he's not making enough money to survive as a GP because he's doing these two 12-hour overnight shifts where he mostly sleeps, but still, it does make you wonder.
(VOCATIONAL MEDICAL TRAINEE, SALHN)

What became increasingly clear while conducting the focus groups was that participants at all levels of training held contradictory and sometimes rather confused views on what GPs earned. There was a general perception that the number of hours GPs worked, the depth and breadth of their knowledge, and the training required, was not financially rewarded.

In the next extract, general practice is described as a 'not at all lucrative' specialty.

Female: The GPs who I know, who work in the city now, in the non-rural context, they really love their work-life balance, and I know we've all thrown that phrase around a few times. But it does just seem pretty good. That's not to say that they're paid particularly exorbitantly. I think when you break down the kind of work and training that they do, compared to the pay they receive, it's not at all lucrative.
(PREVOCATIONAL MEDICAL TRAINEE, SALHN)

Although the participant advances the idea that general practice in the city provides a 'work-life balance', this is not matched by remuneration for the work and training necessary to do the job. Formulated in this way, a less than lucrative general practice remuneration is considered a trade-off for work-life balance. Again, it is interesting that the pay that GPs receive is not explicitly stated and is complicated by a '*…break down [of] the kind of work and training they do*'. We may speculate that many trainees do not have a very clear idea of what they might expect to receive as a GP and are therefore open to relying on anecdotal information that does not fairly represent general practice remuneration.

Status: 'Just a GP', 'The easy way out'

The idea that specialising as a GP was inferior to other specialties was a common refrain in the focus groups. Participants' recounted conversations with peers and family members that ostensibly painted general practice as beneath them, or as a cop out. The following extracts illustrate these discourses.

Facilitator: You think there is a status differential even in Australia?

Male: Absolutely.

Male: Yeah definitely:

Female: Mm-hm.

Male: In saying that, you meet some really smart, well-rounded GPs and you meet some really dumb specialists and the other way around so it's not a - yes there is a status thing around it but it's not to say that they're any less than anyone else you can - yeah. You meet some very, very smart well-rounded GPs at times.
(MEDICAL STUDENTS, UNIVERSITY OF ADELAIDE)

Female: If you go outside of our cohort and into the community, are you going to be just a GP, that's a very common - or are you going to specialise. People don't really understand the concept that GP is a specialty. I think when I finished med school, they were like, 'so you're going to be a GP next year'? That's a very general community...

Female: I've had the conversation so many times. I actually have to specialise to be a GP. It's my new favourite thing to say now.

Male: Even within the medical industry, that's the case. Like you hear a lot of it in ED, bagging GPs. Sometimes it's well deserved, but generally bagging GPs as being inferior. If you say in your team, I'm going to do GP, do a GP program, it's a very different response to 'I want to do medicine, I want to do surgery, I want to do whatever' specialty. Oh, okay. Unless you find they give you great opportunities and show their specialty off and let you sew up at the end of surgery.
(PREVOCATIONAL MEDICAL TRAINEES, NAHLN)

Female: It wasn't that anything was terrible [GP], that I couldn't see myself doing. Then there was other external factors of like if you do GP, it's like the slack way out and all these other sorts of external pressures of that as well.

Facilitator: Are there really?

Female: Yeah, like, this is hospital perception.

Female: The hospital perceives GP a bit like oh, they're just doing GP.

Female: Yeah, and it was really something that I had to fight internally for myself of, like, this is a really intellectual pursuit for me. It's not - I'm not going to get bored stiff being a GP. 'You're like so much better than that'. Like, I had so many people of my peers saying really derogatory comments like that when I chose general practice.
(RURAL PATHWAY GP REGISTRARS)

Male: I think specifically within our cohort, as medical students, GP - it's still - until you know someone who is going through the training programs and going through GP training, a lot of the culture - that it's perceived culturally - correct me if I'm wrong around the room, but as the easy way out. It's kind of like all these 'Type A' personalities, very competitive, 'I have to be the best', then GP isn't the hardest thing so therefore I don't want to do the not hardest thing. I want to be the best. So, it's a lot of that culture around competitiveness and the drive of the personalities within medicine. I feel like GP is kind of looked down on as an option. Unless you're really confident in your reasons why, it's quite easy to be swayed by your peers. I get - I've been very confident about my interest in GP for a while and I still get a lot of comments like, oh why would you want to do something like GP? It's very much a very negative connotation to that. It doesn't bother me, I'm going to have a great life but it's that - the culture is certainly, I think, geared - negatively geared.
(GENERAL PATHWAY GP REGISTRARS)

Perceived status differentials between specialties is well established in previous studies on medical specialty decision-making. Similarly, in our dataset a discourse that represented general practice training as a 'slack way out', circumventing the onerous training associated with specialities such as surgery, was also supported. This discourse is, we posit, built on the assumption that medical

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 open to change.

The following extract provides another example of how status operates in representing particular medical specialties. In this instance, the role of gender is pivotal in categorising who is best suited to specialise in general practice, and who is not.

> *Female: Then as a woman with a family, I get a whole load of 'so you're going to do GP', and it's like, 'no', there is another world out here and it's just kind of like an assumption that's happened over a long period of time. Once you kind of go oh no, like I'm going to do something else, okay, and that happens even in the medical field where you have worked with people for eight weeks and they'd be like, 'so you can do GP?'*
>
> *Facilitator: So, it's quite gendered you think?*
>
> *Female: I think sometimes it can be.*
>
> *Female: Even without kids as a female, 'so you're going to do GP?' 'No, I want to do surg,' 'Oh, okay. You know what that involves?' 'Yes, I do.'*
>
> *Female: I think it's getting better, but there is definitely still an element of that for females. It's like 'who's going to look after your children then?'*
>
> *Female: 'What kind of mum are you going to be?' Ra-ra-ra.*
>
> *Female: So, there's definitely still an element of it.*
>
> *Female: It's like there are nine colorectal consultants here and only one of them is a woman. Like it's your role models are male as well.*
> *(PREVOCATIONAL MEDICAL TRAINEES, NALHN)*

This extract, along with others in the dataset, underscore a worrying discourse in medicine that positions women as 'naturally' suited to general practice in contrast to men. In some cases this is justified by a belief that, because women are assumed to want to have children and take the primary care-giver role, this precludes them from training for, and working in, a 'difficult' specialty like colorectal surgery. There is a lot to unpack here, but this extract demonstrates how general practice is represented as a 'gendered' career, which suits women more than men. This is clearly problematic for a number of reasons. One amongst these is that it may preclude men from considering general practice as a specialty because it is stereotyped as 'woman's work'. The kinds of work women have historically been associated with has generally had lower social status, which may also feed into men's general practice decision-making.

This is the kind of social thinking that needs to be targeted and combatted with alternative discourses that work to re-represent the specialty as non-gendered. Gender assumptions are deeply embedded in society, and are thus not unique to medical training, but need to be challenged by purposively choosing appropriate language, images and narratives to promote and discuss general practice, along with promoting role models that challenge gender assumptions.

6.2.4. How to attract metropolitan and rural GPs

Finally, when participants were asked about how to facilitate recruitment of students and trainees to specialise in metropolitan and rural general practice, they gave the following recommendations.

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. The ability to take leave and access (subsidised) flights could alleviate the burden of responsibility that is part of being the only GP in a small town. 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.

Promotion of 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.

Review rural placement process: Some participants felt a rural general practice training placement that was centred 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.

Enhance general practice placements and supervision. The general practice rotation experience was perceived as pivotal to specialty decision-making. Poor quality, mundane placements were often denoted as the tuning point that took participants away from the idea of choosing general practice as a specialty.

Improving remuneration. It goes without saying that remuneration will always be a key factor in the medical specialty decision-making process. This may be even more relevant in the rural general practice context. Participants recommended more clarity be provided over what a GP could be expected to earn, so as they could make an informed decision. Our data suggests that there may be a significant degree of misinformation circulating among students and trainees, which is arguably impacting on decision-making.

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. Some participants suggested than an agency be set up to support partners finding work. This barrier might be partially remedied by the job-sharing and fly-in-fly-out strategy already discussed.

6.3. Summary of focus groups

The qualitative data suggests that for some doctors, their choice of specialty is driven by factors that are not easily amenable to change, such as a long-held passion for doing a particular specialty or a striving for the highest 'status' specialty e.g., surgery. Yet, for others, a passion for a specialty becomes clearer during a rotation where they had their 'Eureka moment', cementing their decision. It is difficult to imagine that in the short-term, promoting general practice to cohorts who are committed to achieving high status – and the remuneration that nearly always comes with these specialities – is a worthwhile focus. Rather, concentration on facets of decision-making that could sway other cohorts may be a more fruitful way to proceed.

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 minimise the impact of the negative perceptions and maximise the opportunity for GP fulfilment and community care. This needs to include consideration of partners and families;
- Remuneration is not well understood. We need to better describe what remuneration could be expected as a rural GP or GP;
- We need to ensure we communicate and implement a clear pathway to become a rural GP; and
- General practice is discussed in a gendered manner as 'women's work'. We need to carefully choose the language, images and discourse we use to promote general practice to ensure we are not promoting a gendered view of the specialty.

Early placement experience in general practice is critical, and improving the quality of the experiences to encourage rural general practice and general practice more broadly as a specialty choice is imperative:

- We need to work with our existing and future GP mentors and supervisors to encourage them to discuss the positive and rewarding aspects of general practice and to assist to dispel the myths and 'horror stories';
- We need to select, train, monitor and provide ongoing feedback and support to our rural and urban medical student and prevocational general practice placements; and

- We need to communicate from early in medical school about rural general practice and general practice.

In conclusion, these data strongly advocate for an approach to recruiting GPs that focuses on the language that students and trainees employ and use to guide their specialty decisions. Beliefs and discourses such as those discussed here need to be carefully deconstructed to inform rhetorical arguments that portray general practice as a superior choice to other specialty alternatives.

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 5th year medical students from the University of Adelaide MBBS program and revised where necessary before being distributed to the final year medical students between October and November 2019. The survey was disseminated through an announcement on the learning management systems used by the Universities with links to the participant information sheet and the online questionnaire.

To maximise response rates, two reminders were sent to the medical students following the first announcement and respondents had the opportunity to go into a draw to win one of four $50 gift vouchers.

Descriptive analysis of the survey results was undertaken using IBM SPSS Statistics for Windows Version 26.0 (IBM Corp Armonk, NY, USA).

7.2. Results

The survey was distributed to 269 final year medical students – 145 at the University of Adelaide and 124 at Flinders University. Valid responses were received from 57 of medical students, giving a response rate of 21.2%.

7.2.1. Respondent characteristics

The characteristics of the responses are summarised in Table 4. Most respondents were aged between 20-29 years, born in Australia, undertook their secondary schooling in SA and were domestic students. Over half were female (51%) and were either married or in a long-term relationship (56%). Of the respondents, 40% were from a rural background and had a rural bonded scholarship while at medical school (Table 4).

The respondent profile is similar to that of medical graduates across Australia in 2017 for some of their characteristics. In 2017, 85% of Australian medical graduates were aged below 30 years compared to 81% of survey respondents, and 52% of graduates were female compared to 51% of survey respondents[82]. However, a greater proportion of the survey respondents reported coming from a rural background (40%) compared to 22%of the 2018 of medical graduates who completed the MSOD survey[112]. Therefore, it is worth noting that the survey results are likely to be biased towards respondents with a rural background.

Table 4: Characteristics of respondents (n=57)

Characteristics	*Values*	*Frequency*	*Percent*
University	Flinders University	26	45.6
	University of Adelaide	31	54.4
Age	<25 years	20	35.1
	25-29 years	26	45.6
	30-34 years	6	10.5
	35-39 years	3	5.3
	45+ years	2	3.5
Sex	Male	27	47.4
	Female	29	50.9
	Missing	1	1.8
Country of birth	Australia	44	77.2
	Other	13	22.8
Country of birth by region (n=13)	Europe	2	15.4
	Asia	8	61.5
	North America	2	15.4
	Middle East	1	7.7
Length of time in Australia (n=13)	<6 years	6	20.0
	6-10 years	1	8.3
	11-20 years	3	25.0
	>20 years	2	16.7
	Missing	1	8.3
Marital status	Single	26	45.6
	Married	12	21.1
	Long term relationship	19	33.3
Location of secondary schooling	South Australia	41	71.9
	Other state	14	24.6
	Missing	2	3.5
Rural background	Yes	23	40.4
	No	34	59.6
Type of student	Domestic	49	86.0
	International	7	12.3
	Missing	1	1.8
Bonded medical scholarship	Yes	23	40.4
	No	34	59.6

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).

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

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

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 specialty. Of these respondents, the most common specialty was general practice (36%), followed by anaesthetics (11%), obstetrics and gynaecology (7%), rural general practice (7%) and psychiatry (7%). When combining general practice specialty to include rural GP and rural generalist, 46% of the 28 respondents who had chosen a specialty had chosen these careers. This

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[112]. 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%).

Table 6: Career intentions (n=57)

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
Specialty selected (n=28)	General practice	10	35.7
	Anaesthetics	3	10.7
	Obstetrics & gynaecology	2	7.1
	Rural GP	2	7.1
	Psychiatry	2	7.1
	Paediatrics	1	3.6
	Orthopaedic surgery	1	3.6
	Radiology	1	3.6
	Physician	1	3.6
	Radiation oncology	1	3.6
	Rural generalist	1	3.6
	Critical care	1	3.6
	Endocrinology	1	3.6
	General surgery	1	3.6
Specialty selected grouping (n=28)	GP or rural GP/rural generalist	13	46.4
	Other specialty	15	53.6
Ever considered general practice	Yes	32	56.1
	No	13	22.8
	Undecided at this stage	7	12.3
	Missing	5	8.8
Interested in working in a rural area	Yes	30	52.6
	No	5	8.8
	Undecided at this stage	17	29.8
	Missing	5	8.8
Undertake specialty training in South Australia	Yes	26	45.6
	No	9	15.8
	Undecided	17	29.8
	Missing	5	8.8
	NSW	3	33.3

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.

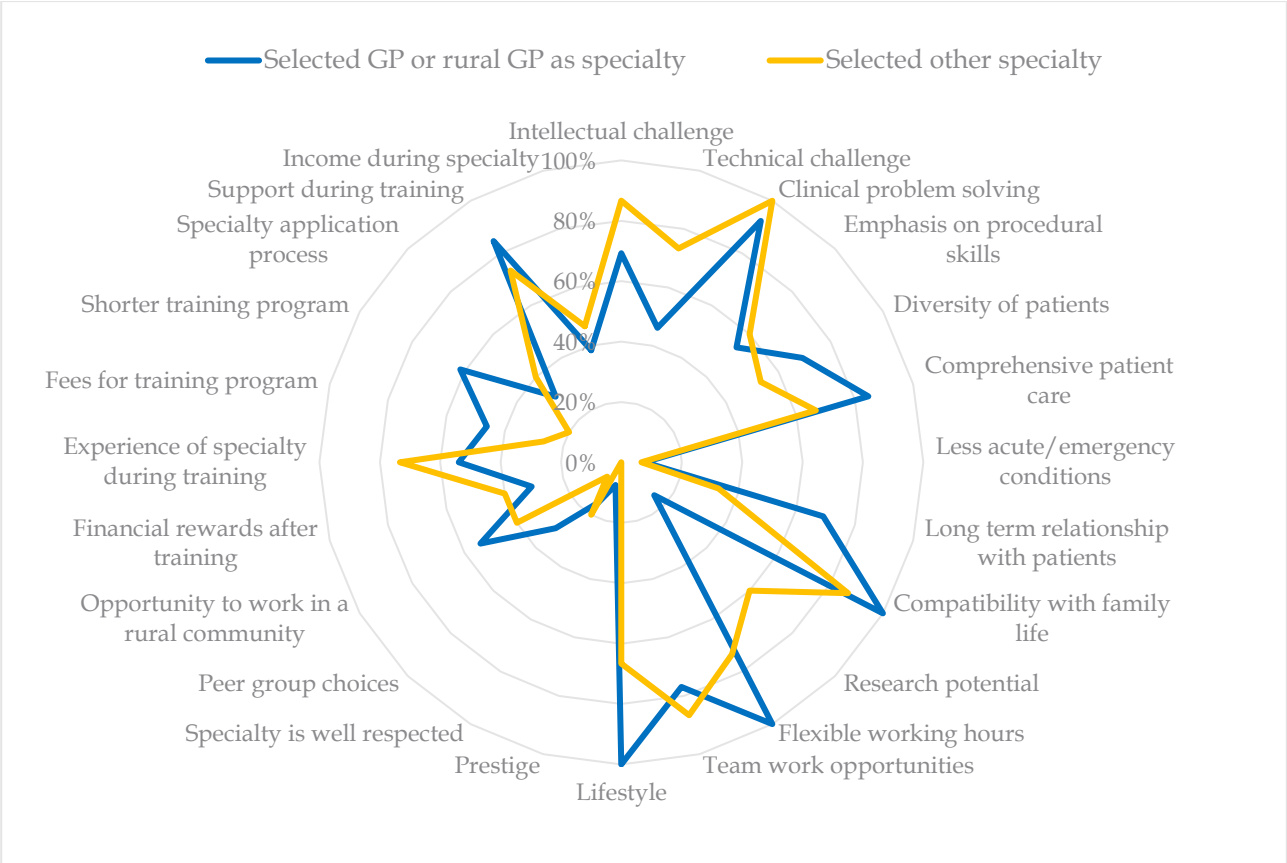
A comparison of factors impacting on specialty decision-making between those who had chosen general practice versus those who had chosen rural general practice or rural generalism was not possible due to the small sample size. However, we were able to compare the influential factors reported by students who had selected rural general practice or general practice as a specialty and students who had chosen another specialty to identify any differences in the importance of factors. The comparison of the factors considered important or very important in making a career decision for those students who had chosen rural general practice or general practice or another specialty is shown in Figure 31. While there are some similarities, there are also differences.

Table 7: Importance of factors when deciding on a specialty (n=57)

Rating	Very important/ Important		Moderately important		Slightly important/ Not important		Missing
Factor	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Clinical problem solving	46	88.5	4	707	2	3.5	5
Lifestyle	46	88.5	3	5.8	3	5.8	5
Role models	42	82.4	6	11.8	3	5.9	6
Flexible working hours	44	77.2	5	9.6	3	5.8	5
Compatibility with family life	44	77.2	4	7.7	4	7.7	5
Comprehensive patient care	39	75	9	17.3	4	7.7	5
Teamwork opportunities	38	73.1	9	17.3	5	9.6	5
Intellectual challenge	37	71.2	14	26.9	1	1.9	5
Experience of specialty during training	37	71.2	12	23.1	3	5.8	5
Diversity of patients	34	65.4	11	21.2	7	13.5	5
Emphasis on procedural skills	31	59.6	11	21.2	10	19.2	5
Technical challenge	25	48.1	20	38.5	7	13.5	5
Long term relationship with patients	25	48.1	13	25	14	26.9	5
Financial rewards after training	23	40.4	18	34.6	11	21.2	5
Support during training	23	40.4	19	37.3	14	27.5	6
Income during specialty	19	37.3	16	31.4	16	31.4	6
Specialty application process	18	35.3	19	37.3	14	27.5	6
Research potential	18	34.6	10	19.2	24	46.2	5
Opportunity to work in a rural community	18	34.6	24	46.2	10	19.2	5
Shorter training program	15	29.4	13	25.5	23	45.1	6
Fees for training program	14	27.5	11	21.6	26	51	6
Specialty is well respected	13	25	16	30.8	23	44.2	5
Peer group choices	10	19.2	16	30.8	26	50	5
Less acute/emergency conditions	6	11.5	19	36.5	27	51.9	5
Prestige	5	9.6	10	19.2	37	71.2	5

Medical students who have chosen rural general practice or general practice rated the following more highly than those medical students who have chosen another specialty: lifestyle, compatibility with family life, flexible working hours, comprehensive patient care and role models. Those medical students who have chosen another specialty placed more importance on intellectual and technical challenge and clinical problem solving (Figure 31).

Figure 31: Important decision-making factors by medical students who had chosen rural general practice or general practice versus another specialty (n=26)



7.2.5. Attitude and perceptions of rural general practice and general practice

Along with factors that individuals consider when choosing a medical specialty, the decision-making process can also be influenced by perceptions and attitudes towards a particular specialty. The survey asked the medical students about their perceptions of rural general practice and general practice compared with other specialties. Respondents were asked to rate statements about these specialities on a scale from one (strongly disagree) to five (strongly agree). These ratings were collapsed into three groups: strongly agree or agree (4-5); undecided (3); and disagree or strongly disagree (1-2). The statements were based on the literature review and input from the study's Steering Group and covered areas such as lifestyle, type of work, and perceptions of the specialty by others.

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)

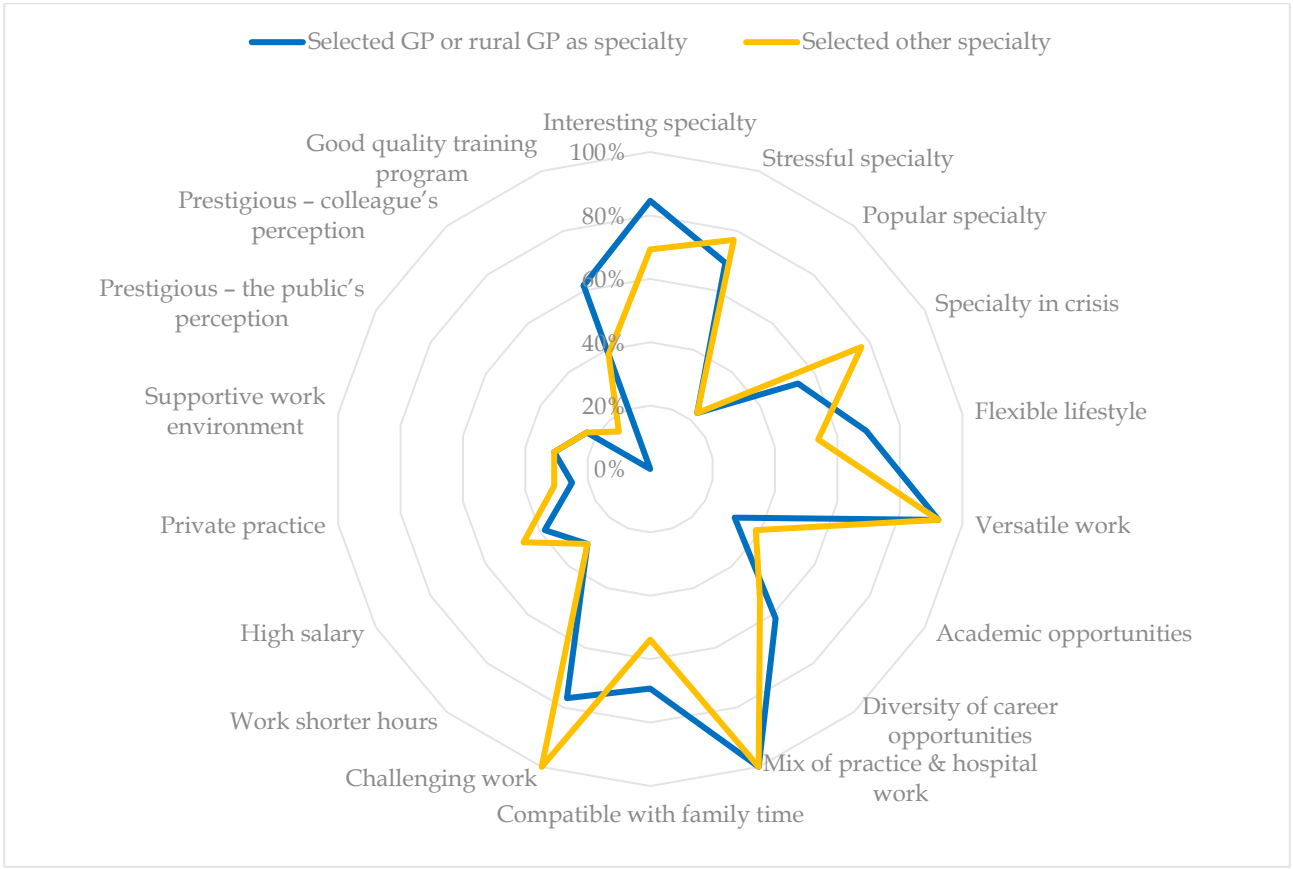


Table 8: Perceptions of rural general practice compared with other specialities (n=57)

Rating	Strongly agree/Agree		Undecided		Strongly disagree/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	8
Diversity of career opportunities	31	63.3	8	16.3	10	20.4	8
Flexible lifestyle	30	61.2	11	22.4	8	16.3	8
Stressful specialty	28	57.1	13	26.5	8	16.3	8
Specialty in crisis	28	57.1	18	36.7	3	6.1	8
Good quality training program	28	57.1	10	32.7	5	10.2	8
Supportive work environment	20	40.8	18	36.7	11	22.4	8
Private practice	18	37.5	15	31.3	15	31.3	9
Academic opportunities	18	36.7	9	18.4	22	44.9	8
High salary	17	34.7	16	32.7	16	32.7	8
Work shorter hours	14	28.6	13	26.5	22	44.9	8
Popular specialty	8	16.3	11	22.4	30	61.2	8
Prestigious – the public's perception	8	16.3	15	30.6	26	53.1	8
Prestigious – colleague's perception	4	8.2	10	20.4	35	71.4	8

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.

Table 9: Perceived advantages of rural general practice

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 e.g. obstetrics & gynaecology, anaesthetics
	Independence/autonomy in running one's own practice
Training	Supportive training program
	Shorter training program
	More chance to acquire skills; opportunities to upskill
Personal	Giving back to a community; make an impact on underserviced community
	Serving an area of need/underserved communities
	Ability to travel

Table 10: Perceived disadvantages 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
	High level of responsibility
	Lots of administrative type work
	Significant after hours and on-call
	Time pressure
	Limited prescribing and investigation scope
	Training and exposure limitations; deskilling
	Lack of resources
Personal	Difficulty separating personal life from professional life
	Often very political
	Sexism

Attitude and perceptions of general practice

In terms of general practice, the most common perceptions of this specialty were slightly different to rural general practice, with emphasis on lifestyle (Table 11). Respondents agreed or strongly agreed that general practice was compatible with family time (85%), provided a flexible lifestyle (83%), versatile work (77%) and provided opportunities for private practice (62%). Over half of the respondents also perceived GPs as being able to work shorter hours (57%), work in a supportive environment (57%) and that general practice had a good quality training program (55%) (Table 11).

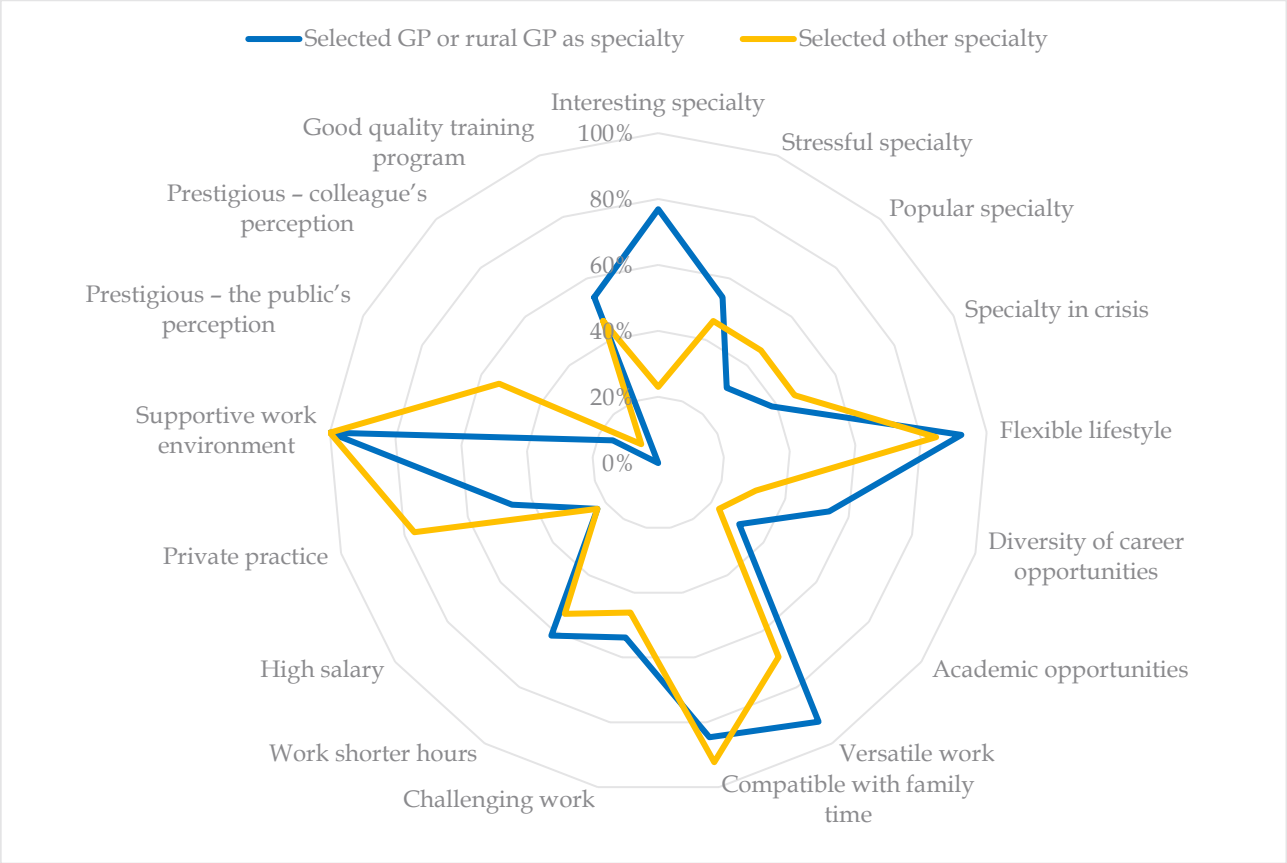
Like rural general practice, general practice was not viewed as a prestigious specialty by their colleagues (78% disagreed or strongly disagreed with this statement) or the public (53%) (Table 11). It was also not seen as providing a high salary (43%) or being a popular specialty (40%). This last disadvantage is surprising in that general practice has been the second or third ranked preferred specialty of final year medical students across Australia for the last five years according to the MSOD data[112].

Table 11: Perceptions of general practice compared with other specialities (n=57)

Rating	Strongly agree/Agree		Undecided		Strongly disagree/Disagree		Missing
Factor	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency
Compatible with family time	40	85.1	5	10.6	2	4.3	10
Flexible lifestyle	39	83	6	12.8	2	4.3	10
Versatile work	36	76.6	9	19.1	2	4.3	10
Private practice	29	61.7	12	25.5	6	12.8	10
Work shorter hours	27	57.4	12	25.5	8	17	10
Supportive work environment	27	57.4	18	38.3	2	4.3	10
Good quality training program	26	55.3	19	40.4	2	4.3	10
Challenging work	23	48.9	19	40.4	5	10.6	10
Interesting specialty	21	44.7	13	27.7	13	27.7	10
Diversity of career opportunities	21	44.7	18	38.3	8	17	10
Popular specialty	18	38.3	10	21.3	19	40.4	10
Academic opportunities	15	32.6	17	37	14	30.4	11
Specialty in crisis	15	31.9	17	36.2	15	31.9	10
Stressful specialty	14	29.8	17	36.2	16	34	10
High salary	10	21.3	17	36.2	20	42.6	10
Prestigious – the public's perception	10	21.3	12	25.5	25	53.2	10
Prestigious – colleague's perception	1	2.1	9	19.1	37	78.7	10

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 (Figure 33). Those medical students who had not chosen rural general practice or general practice did not see it as an interesting specialty or as prestigious (Figure 33).

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)



The overwhelming advantage of general practice reported by respondents was its flexibility and compatibility with family life, providing a lifestyle balance (Table 12). In terms of the work, developing long-term relationships with patients, and having a diverse workload were the most commonly cited advantages of general practice. Several respondents reported that the shorter and less intense training program was another advantage. They also saw general practice as being adaptable and would allow them to work overseas.

Table 12: Perceived advantages of general 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 pay
	Challenging presentations
	Business opportunity
Training	Less intense training
	Shorter training program
	Opportunities for advanced skill training
Personal	Ability to work overseas
	Adaptable career
	Less stressed

The reported disadvantages of general practice fell into two main areas – work and personal (Table 13). The administrative workload, the repetitiveness of the work and not being part of a team were the most common disadvantages reported. Lack of respect from colleagues and the public were also listed as disadvantages of general practice, along with lack of career advancement.

7.2.6. Communication about rural general practice and general practice

Respondents were asked if they had received any communication about general practice from GPEx, RACGP and ACRRM. The RACGP was the most commonly reported source of communication about GP (68%), followed by GPEx (56%) and ACRRM (44%) (Table 14).

Table 13: Perceived disadvantages of general practice

Category	Themes
Training	Lower salary during training
Work	Difficult work
	Isolation from other medical specialties; less inter-specialty collaboration
	Lot of menial administrative tasks; government role
	Repetitive and boring at times; more mundane presentations
	High workload
	Lack of time to spend with patients
	Not so much a team environment as in the hospital; lack of teamwork
	Lower salary
	Breadth but not necessarily depth
	Lack of opportunities to become involved in research
	Loss of specialised skills
	Business focussed
Personal	Professional and personal isolation
	Lack of intellectual stimulation
	Not well respected by the public
	Less prestige amongst colleagues; lack of respect from colleagues
	Less structure for advancement in career

Table 14: Communication about general practice (n=57)

Characteristics	*Values*	*Frequency*	*Percent*
GPEx	Yes	32	56.1
	No	14	24.6
	Missing	11	19.3
RACGP	Yes	38	66.7
	No	10	17.5
	Missing	9	15.8
ACRRM	Yes	25	43.9
	No	22	38.6
	Missing	10	17.5

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 terms of exposure to rural practice and general practice during medical school the survey found 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 general practice was seen as a specialty requiring long work hours. Over half of the respondents perceived rural general practice as a specialty in crisis and a stressful specialty. There was also a perception that rural general practice did not necessarily offer a supportive work environment;
- Rural general practice and general practice were not seen as being a prestigious or a popular specialty. They were also perceived to offer a low salary;
- General practice was perceived as offering foremost a flexible lifestyle, compatible with family time as well as versatility in work, shorter working hours and a supportive work environment;
- Some of these perceptions of rural general practice and general practice were confirmed when the students reported the advantages and disadvantages of these specialties;
- For rural general practice 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;
- Isolation, both geographically and professionally, was reported by many of the respondents as a disadvantage of rural general practice;
- A high administrative workload and repetition was a commonly identified disadvantage with general practice; and
- A number of respondents indicated they had not received communication about general practice from ACRRM, RACGP or GPEx, or missed responding to this question.

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 perceptions of rural general practice and general practice that impact on decision-making. The decision-making criteria against which these perceptions are weighed and discussed together with the perceptions. This is all summarised in Figure 34.

Finally, opportunities are presented which draw together ideas presented by the focus group participants themselves to attract more applicants to rural general practice, and synthesis of the various findings from this study. The suggestions provided by medical practitioners themselves, to improve this situation can be very powerful.

8.1. Contextual factors

The environmental scan identified a number of contextual factors that contribute to a medical student or medical trainee's perceptions of rural general practice and general practice. These included:

- The corporatisation of general practice;
- The business model of general practice and the effect of government policy on this such as the Medicare freeze;
- The current models of rural training and practice; and
- Increasing competition from other specialities for trainees traditionally entering general practice.

Stakeholders also discussed the perceived changing generational needs of medical students and prevocational trainees, such as increasing need for connectivity, decreased confidence and possibly resilience.

In addition to these, the changing profile of medical students and applicants to vocational training is also contributing to the current situation. The changes having an impact are:

- A decreasing proportion of female medical students;
- A decreasing pool of PGY2 trainees in SA to source future general practice registrars;
- A decreasing proportion of female graduates entering general practice vocational training, with an increasing proportion of females in other vocational training programs such as paediatrics;
- A decreasing proportion of medical graduates in SA over the next few years; and
- A substantial decline in GP registrars reporting previous experience in general practice at a prevocational training level.

All these factors combine to influence applications to general practice vocational training and particularly the rural training pathway, and should be considered when developing strategies.

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 medicine, which may not be well understood. In addition, the concern was raised that we have been promoting the 'super doctor', not the breadth of rural general practice, which may be an unattractive career for some.

8.3. Perceptions and decision-making criteria

The survey and focus groups provided insights into how medical students, prevocational and vocational medical trainees perceive rural general practice and general practice. These insights can be used to address negative perceptions and promote positive aspects of these specialities. Perceptions of general practice more broadly are used as a point of comparison to identify features, which are seen as similar or different. This will assist to target messaging.

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, with lots of menial administrative tasks. *"people are like I want a sick note or I want a referral to see a real doctor"*;
- This contrasts to rural general practice, which was seen to be challenging work, an interesting specialty, providing versatile work, a mix of practice and hospital work, and giving a sense of agency. *"I'd be bored if I had to work in the city" , "in rural … you have to deal with everything"*; and
- It is important to ensure messaging confirms the positive clinical and cognitive aspects of rural general practice and general practice more broadly, so we do not lose potential future rural GPs because of the perception of mundane clinical practice.

Partner work opportunities:

- Compatibility with family life was also a most highly rated criteria used to inform medical specialty decision-making. While rural GP was seen to be compatible with family time there was seen to be a lack of partner employment opportunities. *"My husband works in the city and I don't think he'd be able to get a job in a regional town".*

Professional and social isolation:

- Teamwork opportunities was one of the most highly rated criteria used to inform medical specialty decision-making. However, rural general practice was seen to be a profession which was professionally and socially isolating. This was seen by medical students through the survey as the most common disadvantage of rural general practice, and was also a theme in the focus groups. There was a perception that rural GPs had quite a high level of risk and low level of support. *"…So, the idea of being the only kind of GP doctor that out there you do something wrong, like that's quite scary."*; and
- There were two kinds of rural, one being remote and one being much closer to a major city, with the latter being less socially isolating and able to maintain relationships with family and friends.

'Specialty in crisis':

- Rural general practice was seen as a specialty in crisis by medical students with high workloads, lack of resources and lacking respect from some colleagues.

Low salary:

- GPs were perceived as earning significantly less than other specialties. "*…one of the GPs there sat us down and went through the economics of being a GP in Broken Hill, where you don't do hospital cover, and at the end of the day you were earning less than minimum wage*.";
- While there were also confused views on what GPs earned, there was a general perception that the number of hours GPs worked, the depth and breadth of their knowledge, and the training required, was not financially rewarded; and
- A lack of career progression opportunities was also noted by medical students within the survey as a disadvantage of rural general practice.

Low prestige and status:

- Overall there was a clear theme across the survey and focus groups regarding the low status of general practice. Participants talked about: '*just a GP*', '*the slack way out*' and '*the easy way out*'. General practice was not a popular or prestigious specialty, despite being ranked in the top three specialty choices by medical graduates in Australia in 2018; and
- General Practice was talked about in a gendered way as 'women's work'. It was viewed as a career choice for females who were expected to spend time with children and have a less demanding job. "*Even without kids as a female 'so you're going to do GP? No, I want to do surg, Oh okay you know what that involves?"*

8.4. Opportunities

The findings provide opportunities to re-frame the messaging and communication around rural general practice and general practice in order to positively influence a change in perceptions of the specialties. In addition, improving the availability to general practice exposure and quality of the experiences within general practice are essential to change perceptions and influence decision-making.

The focus group participants themselves recommended a number of opportunities to increase the attractiveness of rural general practice and general practice. The suggestions provided by medical students and trainees themselves, to improve this situation can be very powerful. The recommendations emerging from the focus groups are described below:

- 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 the norm, it could be considered as an option, but would need to incorporate safety netting for registrars, supervisors, practices and the community.

- Increase opportunities for and enhance quality of early general practice experiences

The general practice experience, was perceived as pivotal to specialty decision-making. Poor quality medical school placements which were mundane, lacked quality supervision, and did not give the student an opportunity to experience the diversity of general practice were often denoted as the turning point that took participants away from the idea of choosing general practice as a specialty. Medical student and prevocational placement quality is important to attract applicant to rural general practice.

- Improve information regarding remuneration

Remuneration is a factor in the medical specialty decision-making process. Our data suggests that there may be a significant degree of misinformation circulating among students and trainees, which is arguably influencing decision-making. Participants' recommended more clarity be provided over what a GP could be expected to earn, so they could make an informed decision. It was also recommended that changing working conditions for GP registrars so they are more comparable to those found for hospital-based vocational trainees (e.g. leave entitlements).

- Improve information regarding support for partners

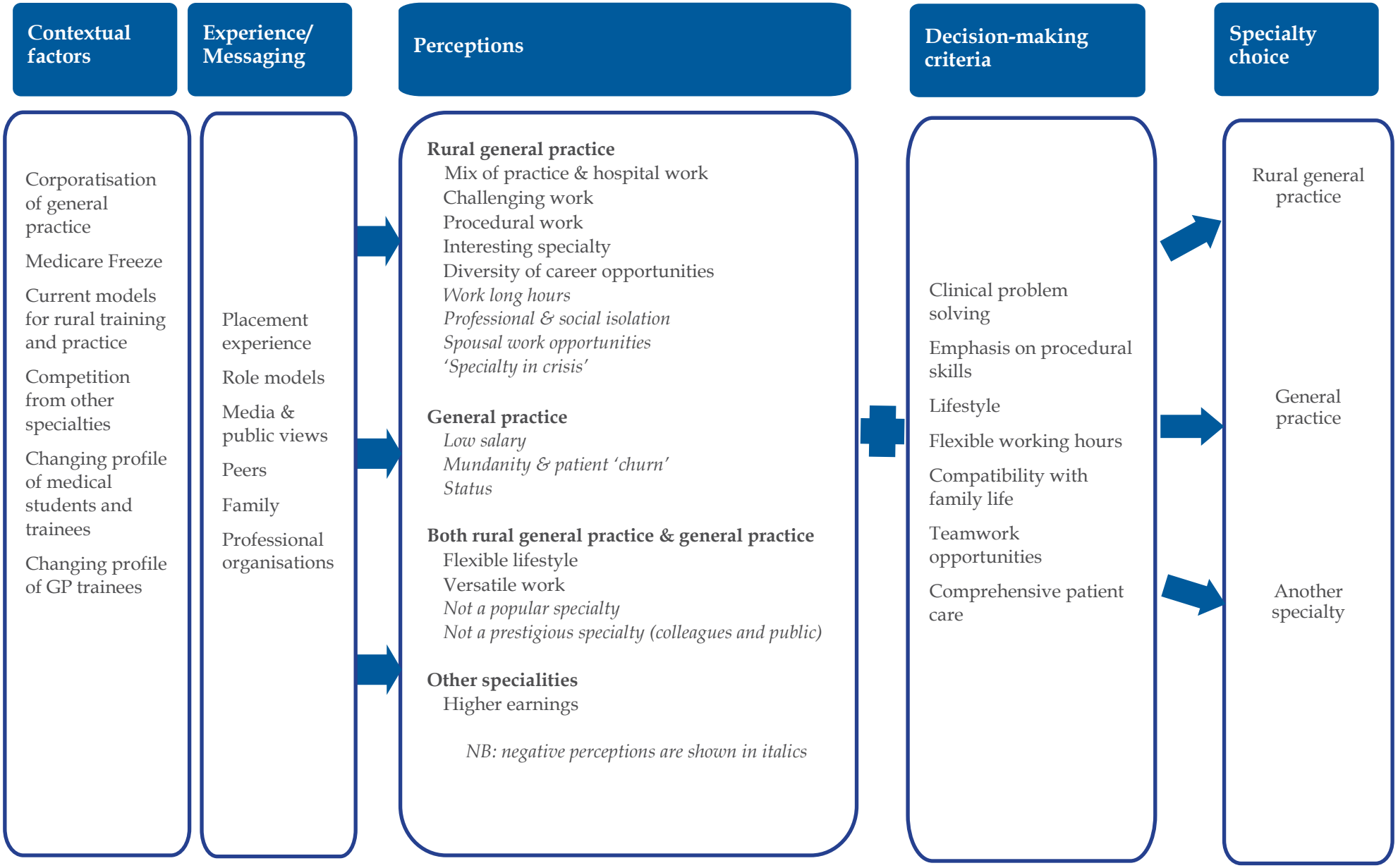
For participants with partners, a chief barrier to going rural was the problem of what their partner was going to do for work. Participants were unaware of support for partners to find work and suggested that an agency be set up to support partners. It was thought this barrier might be partially remedied 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 and develop confidence and skills;
- Share the outcomes of this research with GP role models and work together to reframe communication;
- Strategies developed must take into consideration the effect that contextual factors may have and explore opportunities for influence, advocacy or change; and
- Changing trends in the profile of medical students, prevocational trainees and vocational trainees should be considered in developing and targeting strategies.

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.[112]
- 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-making for medical students, junior doctors and specialists in training. 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.

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11. Appendices

Appendix 1: Focus group question guides

Group 1: Medical students

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	**1. Is anyone considering working rurally in the future?** 1.1. Why would you choose/not choose to work in a rural area? 1.2. Have you experienced working in a rural setting? ….. If so how has this experience impacted on your decision-making about a rural career?
Factors influencing specialty choice:	**2. When you consider your future specialty what factors are influencing your preference?** 2.1. Can you describe personal considerations that will impact on your specialty career choice? (may include family, personality, work-life balance, values etc.) 2.2. 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) 2.3. How has your experience with the specialty area impacted on your preference? (may include role models, educators/advocates, placements etc.) 2.4. Are there other considerations that will impact on your specialty career choice?
	I want you to have a think about General Practice now in comparison with other specialties…..
Attitudes and perceptions of specialities: general practice	**3. What is your perception of a career in General Practice?** 3.1. What would be the advantages? 3.2. What would be the disadvantages? 3.3. Are there differences in status between the different specialities? 3.4. What do you think is the perception of general practice in the medical school environment? 3.5. Where are you getting information about general practice?
Attitudes and perceptions of specialities: rural general practice	**4. What is your perception of a career in rural General Practice?** 4.1. What would be the advantages? 4.2. What would be the disadvantages? 4.3. What do you think is the perception of rural general practice in the medical school environment? 4.4. Where are you getting information about rural general practice?
	Ideas for influencing medical students to choose rural practice
Changing views	**5. What could be done to influence more Medical Students to consider rural training pathways and or a career in rural General Practice?** 5.1. What would make you/them change your mind about working in a rural area? (for those not interested in a rural career)
	Thank you all for participating in this discussion

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	**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 influencing specialty choice:	**3. When you consider your future specialty what factors are influencing your preference?** 3.1. Can you describe personal considerations that will impact on your specialty career choice? (may include family, personality, work-life balance, values etc.) 3.2. 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) 3.3. How has your experience with the specialty area impacted on your preference? (may include role models, educators/advocates, placements etc.) 3.4. Are there other considerations that will impact on your specialty career choice?
	I want you to have a think about General Practice now in comparison with other specialties…..
Attitudes and perceptions of specialities: general practice	**4. What is your perception of a career in General Practice?** 4.1. What would be the advantages? 4.2. What would be the disadvantages? 4.3. Are there differences in status between the different specialities? 4.4. What do you think is the perception of general practice in the hospital environment? 4.5. Where are you getting information about general practice?
Attitudes and perceptions of specialities: rural general practice	**5. What is your perception of a career in rural General Practice?** 5.1. What would be the advantages? 5.2. What would be the disadvantages? 5.3. What do you think is the perception of rural general practice in the hospital environment? 5.4. Where are you getting information about rural general practice?
	Ideas for influencing medical students to choose rural practice
Changing views	**6. What could be done to influence more Junior doctors to consider rural training pathways and or a career in rural General Practice?** 6.1. What would make you/them change your mind about working in a rural area? (for those not interested in a rural career)
	Thank you all for participating in this discussion

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 & specialty area:	**1. What specialty areas have you chosen** 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 influencing specialty choice:	**3. When you consider your future specialty what factors are influencing your preference?** 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?
	I want you to have a think about General Practice now in comparison with other specialties…..
Attitudes and perceptions of specialities: general practice	**4. Why didn't you choose General practice as a specialty?** 4.1. Were there disadvantages in choosing GP? 4.2. Are there differences in status between the different specialities? 4.3. What do you think is the perception of general practice within your specialty? 4.4. What do you think is the perception of general practice within the hospital environment? 4.5. What influenced your perception of general practice
Attitudes and perceptions of specialities: rural general practice	**5. What is your perception of a career in rural General Practice?** 5.1. What would be the advantages? 5.2. What would be the disadvantages? 5.3. What do you think is the perception of rural general practice in the hospital environment? 5.4. What influenced your perception of rural general practice
	Ideas for influencing medical students to choose rural practice
Changing views	**6. What could be done to influence more doctors to consider rural training pathways and or a career in rural General Practice?** 6.1. What would make you/them change your mind about working in a rural area? (for those not interested in a rural career)
	Thank you all for participating in this discussion

GP Registrars

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 & specialty area:	**1. When did you make your final specialty choice?** 1.1. Did you consider other specialities? What were they and why?
Factors influencing specialty choice:	**2. What factors impacted on your decision to become a GP?** 2.1. Can you describe personal considerations that influenced your choice to be a GP? (may include family, personality, work-life balance, values etc.) 2.2. Can you describe work/specialty considerations that influenced your choice to be a GP? (may include types of skills, breadth of practice, culture of specialty, prestige) 2.3. Are there other considerations that influenced your specialty career choice? 2.4. How did your previous experience with general practice impact your preference? (may include role models, educators/advocates, placements etc.)
Rural general practice	**3. Thinking about rural general practice…..Is anyone considering working rurally in the future (might be relevant to both general and urban based registrar groups)** 3.1. Why would you choose/not choose to work in a rural area? 3.2. Have you experienced working in a rural practice? If so how has this experience impacted on your decision-making about a rural career? 3.3. (or for rural pathway registrars Has your experience working in rural practice impacted on your decision-making about a rural career …..?
	I want you to have a think about General Practice now in comparison with other specialties…..
Attitudes and perceptions of specialities: general practice	4. What is your perception of a career in General Practice? 4.1. What are the advantages? 4.2. What are the disadvantages? **4.3.** Are there differences in status between the different specialities? 4.4. What has influenced how you perceive a career in GP?
Attitudes and perceptions of specialities: rural general practice	**5. What is your perception of a career in rural General Practice?** 5.1. What are the advantages? 5.2. What are the disadvantages? 5.3. What has influenced how you perceive a career rural GP?
	Ideas for influencing medical students to choose rural practice
Changing views	**1. What could be done to influence more junior doctors to consider rural training pathways and or a career in rural General Practice?** 1.1. What would make you/them change your mind about working in a rural area? (for those not interested in a rural career)
	Thank you all for participating in this discussion

Appendix 2: Final year medical student online questionnaire

ABOUT YOU:

1. Sex: ☐ Male
   ☐ Female
   ☐ Prefer not to say
2. Age in years:_____
3. Were your born in Australia
   ☐ Yes
   ☐ No
4. Which country were you born in? _____
5. How many years have you being living in Australia for?_____
6. Have you lived five or more consecutive years, or 10 cumulative years in a rural area (RA2-RA5)?
   ☐ Yes
   ☐ No
7. In which State/Territory did you complete your secondary education?
   ☐ ACT
   ☐ NSW
   ☐ Northern Territory
   ☐ Queensland
   ☐ South Australia
   ☐ Tasmania
   ☐ Victoria
   ☐ Western Australia
   ☐ Other (please specify) _____
8. Student status:
   ☐ Domestic
   ☐ International
9. Marital status:
   ☐ Married
   ☐ Single
   ☐ In a long term relationship
   ☐ Not applicable
10. Either Bonded Medical Place or Medical Rural Bonded Scholarship?
    ☐ Yes

☐ 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 rural exposure during training, where was it?

    ☐ Rural hospital only
    ☐ Rural general practice
    ☐ Rural hospital and rural general practice

14. How do you rate the quality of the rural training experience?

    Very poor Excellent

    1 2 3 4 5

15. Why did you undertake the rural training opportunity?

    _____

CAREER INTENTIONS:

16. Have you decided on a medical specialty?

    ☐ Undecided at this stage
    ☐ No
    ☐ Yes

    If **yes**, what specialty is it? _____

17. Have you, or are you considering General Practice as a future specialty?

    ☐ Undecided at this stage
    ☐ No
    ☐ Yes

18. Do you intend 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?

    _____

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

- ☐ Undecided at this stage
- ☐ No
- ☐ Yes

Factors important in deciding on a medical specialty

20. Please rate the importance of the following factors when deciding on your specialty choice (1=not important, 5 = very important)

Intellectual challenge	1	2	3	4	5
Technical challenge	1	2	3	4	5
Clinical problem solving	1	2	3	4	5
Emphasis on procedural skills	1	2	3	4	5
Diversity of patients	1	2	3	4	5
Comprehensive patient care	1	2	3	4	5
Less acute/emergency conditions	1	2	3	4	5
Long term relationships with patients	1	2	3	4	5
Team work opportunities	1	2	3	4	5
Research potential	1	2	3	4	5
Lifestyle	1	2	3	4	5
Flexible working hours	1	2	3	4	5
Compatibility with family life	1	2	3	4	5
Specialty is well respected	1	2	3	4	5
Prestige	1	2	3	4	5
Financial rewards after training	1	2	3	4	5
Opportunity to work in a rural community	1	2	3	4	5
Peer group choices	1	2	3	4	5
Experience of specialty during training	1	2	3	4	5
Role model/s	1	2	3	4	5
Shorter training program	1	2	3	4	5
Specialty application process	1	2	3	4	5
Support during training	1	2	3	4	5
Fees for training program	1	2	3	4	5
Income during specialty training	1	2	3	4	5

Please note any other factors important in making your decision.

_____

ATTITUDE AND PERCEPTIONS OF RURAL GENERAL PRACTICE:

21. What do you perceive to be the advantages of a career in **rural general practice**?

_____

_____

22. What do you perceive to be the disadvantages of a career in **rural general practice**?

_____

_____

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

_____

_____

23. What are your perceptions of a career in rural 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
Mix of practice and hospital work	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

ATTITUDE AND PERCEPTIONS OF GENERAL PRACTICE:

24. What do you perceive to be the advantages of a career in general practice?

_____

25. What do you perceive to be the disadvantages of a career in general practice?

_____

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 ☐ Yes ☐ 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: _____