

MEDICAL CAREER DEVELOPMENT CONSULTATIONS

FINAL REPORT – JULY 2014

Prepared by Urbis for the
NSW Ministry of Health



Health

NSW MINISTRY OF HEALTH

73 Miller Street
NORTH SYDNEY NSW 2060
Tel. (02) 9391 9000
Fax. (02) 9391 9101
TTY. (02) 9391 9900
www.health.nsw.gov.au

For information on this document please contact:

WORKFORCE PLANNING & DEVELOPMENT BRANCH

Email. tburt@doh.health.nsw.gov.au

This work is copyright. It may be reproduced in whole or in part for study or training purposes subject to the inclusion of an acknowledgement of the source. It may not be reproduced for commercial usage or sale. Reproduction for purposes other than those indicated above requires written permission from the NSW Ministry of Health.

© NSW Ministry of Health 2015

SHPN (WPD) 150010
ISBN 978-1-74187-126-5

Further copies of this document can be downloaded from the NSW Health website
<http://www.health.nsw.gov.au>

January 2015

Contents

Executive Summary	2
1 Introduction	5
1.1 Methodology	5
1.2 This report.....	6
2 Influences on medical career planning.....	7
2.1 Career aspirations.....	7
2.2 Practical experience	9
2.3 Personal lifestyle factors.....	10
2.4 Perceptions regarding medical careers	11
3 Improving available information and advice.....	16
3.1 Information needs and preferences	16
3.2 Sources of information and advice.....	19
3.3 Perceptions of existing resources or tools	20
3.4 Opportunities to promote workforce priorities.....	21
4 Implications and recommendations	23
Appendix A: Stakeholder organisations participating in consultations	

FIGURES:

Figure 1 – Information needs along the training trajectory.....	17
Figure 2 – Dimensions in decision-making	23

TABLES:

Table 1 – Focus group sample structure	6
Table 2 – Feedback on resources	20

Executive Summary

Urbis was commissioned by the Workforce Planning and Development Branch of the NSW Ministry of Health (MoH) to undertake a series of consultations on career development for medical students and junior doctors.

The purpose of the research was to provide the MoH with an understanding of the types of career information, advice and guidance that are most useful for medical students and junior doctors. The research has also identified opportunities to influence current perceptions of career pathways in order to increase engagement in medical career areas that align with future workforce requirements, and opportunities to influence perceptions of career opportunities in rural and regional NSW.

The research was qualitative in approach, and included only a small sample of junior doctors and medical students (n=36), and medical workforce stakeholders (n=21). It was not intended to provide comprehensive mapping of current career planning pathways or activities or to provide an evidence base for broader workforce planning activity. Rather, the findings provide some insight into the perspectives of medical students and junior doctors regarding career planning, and some understanding of their information needs as they progress through their medical and vocational training.

CAREER INTENTIONS

The career intentions of focus group participants in the study varied significantly, as did the timing of their career decisions. However, there were several recurring factors that appeared to exert decisive influence on career decisions. These included:

- early aspirations, interests and personal assessment of aptitudes
- practical experience with a particular specialist or specialty
- the influence of role models and trusted advisors
- personal and lifestyle factors, such as preferred location, required hours of work and perceived flexibility regarding workload, and family planning.

Of these, practical experience and relationships with role models and advisors are the two factors most amenable to intervention from external sources such as the MoH, the colleges, or training institutions. Personal and lifestyle factors, however, can be influenced by promotion of attractive opportunities, and perceptions regarding quality of life and control over work/life balance.

INFORMATION NEEDS AND PREFERENCES

The types of information sought by both medical students and junior doctors fell broadly into two categories:

- information regarding training pathways
- information regarding vocational choices – job characteristics; lifestyle implications such as work/life balance, pressure and competition, pay and conditions, and flexibility; and future workforce requirements.

Stakeholders also reported that medical students and junior doctors need more information regarding training positions and their alignment with strategic workforce planning, and more advice to assist them to adjust their expectations to the reality of working life.

Medical students and JMOs were primarily concerned with ‘what they needed to do next’. Longer term considerations were of less importance than ensuring they could attain the next stage of their training trajectory. The types of information which were most sought included the following:

- general information regarding what medical careers exist, prerequisites for entrance, and where they are primarily situated (eg private/public, rural/urban, hospital/community settings)
- information about training places – which hospitals offer them, what career pathways are offered
- information regarding the selection process and what is required for vocational training
- number of placements and standard required for qualification
- job prospects in the future.

Information regarding the implications of vocational choices was a primary concern of junior doctors and, to a lesser extent, of vocational trainees, since these latter had already made their choices. The types of information sought was primarily around job prospects, but also included:

- college requirements
- competition and future workforce demand
- variety of work and setting
- lifestyle factors.

There is a high level of anxiety regarding what is generally considered to be a crowded pipeline for training, and the future job prospects for doctors. This has an impact on the way medical students and junior doctors make their career decisions. Although a workforce plan does exist for NSW, few junior doctors and no medical students knew that it existed. It is unclear the extent to which it would change people's decisions, but there is some indication that greater promotion of workforce priorities might influence career choices. At the very least, medical students and junior doctors may enter the workforce with more realistic career expectations if they have a greater awareness of workforce priorities for the future.

Although few participants reported a clear understanding of workforce priorities most were able to identify some of the top future health needs of the NSW population, for example palliative and geriatric care, oncology and general medicine. The need for more doctors in rural areas was also widely recognised. In the main, medical students and junior doctors reported that they did not believe that more information on workforce priorities would have a strong impact on their career choice, and this was particularly the case among those who had already identified a chosen pathway.

It appeared clear that the information most junior doctors are seeking is not the 'how to' of training (eg application processes and such), much of which is available on the HETI and professional colleges' websites. Students and junior doctors are much more concerned about the competition for places, the job prospects and opportunities, and their likely chances of success.

CAREER PLANNING RESOURCES

Focus group participants demonstrated a much lower awareness of information resources in contrast to medical educational and training stakeholders, and indicated that the majority of information and advice is still sought and received from their peers, registrars who are ahead of them, and specialists themselves. The advice of senior doctors is highly regarded and is sought by medical students and junior doctors alike.

All focus group participants were aware of the information available on the professional college websites. Most were also aware of the HETI website and its resources, although in their minds HETI was primarily associated with the formal job application process and with vocational training courses and resources. Some people reported difficulties in navigating the HETI website. Those who had accessed the HETI JMO forum and training were positive, and some participants were members of local networks. A few participants had tried the HETI app but reported it was of limited use in its current formant and most were unsure of its core purpose.

After viewing a range of resources (the Doctors' GPS published by HETI, a draft two-page workforce profile developed by the MoH, a web-based video, and a web-based aptitude test), the consensus of focus group participants appeared to be that a combination of the Doctors' GPS and the workforce profiles for individual medical careers would provide the most useful information. There was not a convergent view on whether the GPS should be available in hard copy or on the web, but it was acknowledged that the information would be out of date very quickly and most participants recognised that a web-based resource could more easily be kept current.

RECOMMENDATIONS

The data gathered through the stakeholder workshop and interviews, and the focus groups, lead us to make the following recommendations.

Recommendation 1: Consideration should be given to adding a section on the HETI website specifically for medical students and junior doctors where greater information could be available regarding the practical implications of vocational choices, eg. 'real life' scenarios for different medical careers, and available information regarding workforce planning and future opportunities,

including potentially mapping future workforce needs by medical career and geography. HETI is well known, although primarily for the internship application process, and could become a central repository of information regarding vocational career choices.

Recommendation 2: The Doctors' GPS should be maintained as a primary resource, available in both electronic and hard copy versions. It needs to be promoted more widely and in particular its placement and visibility on the HETI website could be improved to make it easier to find.

Recommendation 3: The workforce profiles tested in the focus groups should be further developed and disseminated widely. These could be made available on a dedicated section of the HETI website for medical students and junior doctors. In electronic format they will be easier to update and maintain.

Recommendation 4: Consideration could be given to formalising mentorship programs to link vocational trainees with JMOs, and JMOs with medical students. As students and junior doctors are getting much of their information informally already, formalising a communication link would have the benefit of providing a pathway to ensure that accurate information is being transmitted through word of mouth.

Recommendation 5: NSW Ministry of Health should consider the potential for advocating greater transparency among the colleges with regard to selection criteria and acceptance rates, as this has the potential to influence career choices.

Recommendation 6: Focus group participants identified perceived or real barriers to returning to metropolitan vocational training after rural placements. This included concerns that training in the country would also hinder progression into metropolitan senior consultant roles in the future because of perceived lack of peer networks and depth of clinical experience. NSW Ministry of Health should consider further research to understand the extent to which these perceptions are real, and possible responses to improve the attractiveness of training in rural locations. This might include a review of the Rural Preferential Recruitment (RPR) Program application process, as there was some (but not widespread) opinion that the lengthy application itself was a deterrent to applying for the program.

Recommendation 7: Consideration should be given to ensuring that clinical, education and training leaders are able to provide positive (or at least not pejorative) promotion of generalist and non-specialist roles within the health system, as medical students and junior doctors give weight to the opinions of senior doctors in considering potential future career paths.

Recommendation 8: Given the levels of concern expressed by medical students regarding the need to choose a career path early in their training, information resources regarding vocational options should be provided to medical students as well as to junior doctors. The following avenues could be considered further:

- A more visible web portal for aggregated information, either through HETI or some other centralised electronic location, would assist students and junior doctors to find information more easily. This could include direct links to the professional colleges so that information can be kept current for each training program.
- Directors of postgraduate education and training provide a natural conduit to information provision to doctors-in-training, with universities forming the obvious conduit to medical students. An increased focus on career planning could provide an opportunity for directors to engage junior doctors in discussions and information sharing regarding career options.
- Formalising a mentoring program, in which interns are mentored by residents, and residents by vocational trainees, would provide an additional, structured conduit for disseminating information to assist career planning.
- While the Doctors' GPS has been disseminated in hard copy to both universities and to doctors-in-training, the awareness of this resource appeared to be low and further consideration should be given within each of those avenues as to how best to ensure the resource is more visible.

1 Introduction

In December 2013, Urbis was commissioned by the Workforce Planning and Development Branch of the NSW Ministry of Health (MoH) to undertake a series of consultations on career development for medical students and junior doctors. The research was commissioned in recognition of the need to influence the career pathways of medical students to encourage greater engagement in medical careers identified as priority areas for growth. This research supports the *Health Professionals Workforce Plan 2012 - 2022* and aligns specifically with the development of a medical career framework identified under strategy 8.1, to “invest in the workforce through the provision of career counselling for health professionals, to ensure career plans are aligned with service needs”.

The purpose of the research was to provide the MoH with an understanding of the types of career information, advice and guidance that are most useful for medical students and junior doctors. The research has also identified opportunities to influence current perceptions of career pathways in order to increase engagement in medical career areas that align with future workforce requirements, and opportunities to influence perceptions of career opportunities in rural and regional NSW. Specifically, the consultations sought to identify:

- the types of information and advice which are most useful in assisting medical students and junior doctors to make career choices
- the types of resources or tools with which medical students and junior doctors are most likely to engage (e.g. self-assessment tools, fact sheets, career plans, ‘real life’ examples etc)
- how career information and advice should be communicated to medical students and junior doctors (e.g. face-to-face, online, social media, smart phone app, and/or printed media)
- who should provide career information and advice to medical students and junior doctors and which sources of information are perceived to be trustworthy and credible (e.g. peers, supervisors, universities/medical colleges, government agencies and/or peak bodies)

- opportunities to promote medical careers that are priorities for further growth
- opportunities to influence perceptions of career opportunities in regional and rural NSW
- whether stakeholders have negative perceptions of any medical careers and if so, what these perceptions are and how they may be addressed.

This report summarises the findings from consultation with medical workforce and training stakeholders, junior doctors and vocational trainees, and medical students. The research was qualitative in approach, and included only a small sample of junior doctors and medical students. It is not intended to provide comprehensive mapping of current career planning activities or to provide an evidence base for broader workforce planning activity. Rather, the findings provide some insight into the perspectives of medical students and junior doctors regarding career planning, and some understanding of their information needs as they progress through their medical and vocational training.

It is important to acknowledge that improving the provision of career planning resources is only one of the elements required to influence medical career planning and address workforce priorities. Throughout the research a number of structural barriers and broader workforce perceptions were raised that were beyond the scope of this project (particularly in relation to rural training and generalist career pathways). The MoH may benefit from undertaking further research into these areas, and to considering them alongside career resource planning.

1.1 METHODOLOGY

The study comprised two stages:

- consultation with stakeholders involved in workforce planning and training for medical students and junior doctors
- consultation with medical students and junior doctors (PGY1, PGY2 and vocational trainees).

1.1.1 STAKEHOLDER CONSULTATION

Urbis conducted a half day workshop at the MoH in North Sydney, to which a wide range of stakeholders from across the state were invited. Face to face and telephone interviews were also conducted with a small number of stakeholders unable to attend the workshop. Participants for this phase of the study were identified by the MoH and selected for their ability to comment on NSW workforce and medical training issues. They included representatives from the Health Education and Training Institute (HETI), representatives from a range of Local Health Districts (LHDs), academic institutions and student representative bodies, as well as health workforce representatives such as the AMA and the NSW Rural Doctors Network.

The consultations explored stakeholder perceptions of:

- challenges and opportunities for attracting doctors to medical careers of identified need
- challenges and opportunities for attracting doctors to rural areas
- existing and potential career development materials, resources and activities
- gaps in existing provision and opportunities to develop resources to address these gaps.

In all, 20 individuals participated in interviews or in the workshop. A full list of stakeholder organisations who participated in the consultation is provided in Appendix A.

1.1.2 CONSULTATION WITH JUNIOR DOCTORS AND MEDICAL STUDENTS

A series of focus groups was arranged at five hospitals with junior doctors (JMOs) and medical students. In two instances, low attendance led to an individual or paired interview being conducted. Discussions were held at both metropolitan and regional locations to provide a diversity of experience and perception.

Discussions varied in size from single interviews to groups of up to 10, lasted between 1-1.5 hours, and took place within the hospitals where participants were based. Incentives were not provided beyond light refreshments. Participants were recruited and encouraged to attend by their year co-ordinator (in the case of student groups) or by the hospital JMO manager or training supervisor. Fieldwork took place from April to June 2014.

The sample of medical students was limited to those in their final years of study to ensure participants are likely to have actively considered their career options and specialty areas.

Junior doctors included PGY1s, PGY2s and vocational trainees. Discussions with PGY1 and PGY2s were held jointly and focused on future planning. Discussions with vocational trainees were held separately to allow for a more reflective approach that took into account their additional experience. Altogether, 36 junior doctors or medical students participated in the research. The table below provides a summary of the sample structure.

TABLE 1 - FOCUS GROUP SAMPLE STRUCTURE

	Medical Students	JMOS (PGY1/PGY2)	VOCATIONAL TRAINEES
Westmead Hospital		10	
Orange Health Service Hospital		9	5
John Hunter Hospital, Newcastle/ University of Newcastle	4	2	
Gosford Hospital		1	
Prince of Wales Hospital/ University of NSW	5		
TOTAL	9	22	5

1.2 THIS REPORT

This report is structured to present the research findings according to the aims of the project, as follows:

Chapter 1 Introduction and methodology

Chapter 2 Sources of information and advice

Chapter 3 Opportunities to influence medical career planning

Chapter 4 Implications and recommendations.

2 Influences on medical career planning

One of the biggest things in deciding on specialties and careers is that in medical school you are exposed to the medicine and what they do as clinicians but once you start internship and you move onto residency you're exposed to the lifestyle and I think that's when decisions are really made. (JMO)

The career intentions of focus group participants in the study varied significantly, as did the timing of their career decisions. However, there were several recurring factors that appeared to exert decisive influence on career decisions. These included:

- early aspirations, interests and personal assessment of aptitudes
- practical experience with a particular branch of medicine
- the influence of role models and trusted advisors
- personal and lifestyle factors, such as preferred location, required hours of work and perceived flexibility regarding workload, and family planning.

These factors are congruent with the findings of the literature review on medical career decision making by Scott et al (2013), which identified the following factors influencing career choice:

- characteristics, skills and abilities of medical students and graduates
- characteristics of undergraduate and postgraduate medical education and training
- characteristics of alternative medical careers and jobs. (Scott et al 2013:3)

Understanding the motivating factors which influence career choices can assist in positioning educational or marketing material, and for that reason the key drivers identified through the focus groups are briefly summarised below.

2.1 CAREER ASPIRATIONS

For many focus group participants, medicine was something they always wanted to do.

I've always wanted to be a doctor ever since I was a kid. (JMO)

The technical complexity and intellectual challenge that a career in medicine may provide were clear motivators for many. The satisfaction of achieving a practical and visible result was highlighted as an advantage of the more procedural branches of medicine.

I've been exposed to a few different surgical fields and I thought plastics had the most variety and I really liked the technical aspect of it - it wasn't so regimented, there's a bit more creativity and I found that quite enjoyable and the fact it's not confined to a single body part as well. (medical student)

Although not so frequently expressed, altruistic aspirations were also evident among some focus group participants. Contributing to improvements in health outcomes and reducing health inequality were also strong motivators. Unsurprisingly, participants from rural backgrounds frequently identified the desire for a more community-focused lifestyle and to improve the health of rural communities as core motivations.

Everyone always sells the 'it's only 5 minutes to work' thing but for me it was always 40 minutes to everywhere because I lived on a farm 40 minutes away so driving is nothing, it means nothing to me but for me it's more that sense of community in rural areas that you don't have in metropolitan areas so being able to know a lot of people and just knowing within the town, I don't know if it's different in the city but you go to things all the time and your favourite things you do. When you buy things locally you're not just supporting some huge massive chain store you're supporting the people that you know and

kids you go to school with family and those sorts of things; I like that about it. (JMO)

Some medical students began their education with a specific role already in mind. These students were often inspired by an individual doctor, such as having a parent who was a general practitioner, or an experience they have had with a particular branch of medicine, such as watching a doctor treat a family member and being drawn to that role. Post-graduate medical students also sometimes began their training with a particular career in mind as a result of their previous employment experience, such as working in a biochemistry lab or in a hospital in a non-clinical role.

Most students, however, found themselves attracted to a branch of medicine through exploration or personal experience during their years in medical school, and this was then tested further during placements or their intern year.

I wasn't taught anything about dermatology I think I had two lectures in a week and that was my entire derm learning and that was in 3rd year and then in 4th year I actually developed nodular cystic acne and realised that I had no [knowledge, as] close as one year away from being a junior doctor, how to deal with any of the skin conditions. I hadn't been taught anything and I did my own independent learning, and I did a 4 week study placement or elective which was a really good thing our uni did, allowed us to venture out of our comfort zone and that's where I realised I loved derm.(JMO)

Many medical students and junior doctors were highly focused on achieving their goals and often reported that they would be reluctant to consider any career path other than the one they had already identified. This group also tended to have a high level of understanding of their chosen pathway, and proactively sought career information, advice and support to increase the likelihood of accessing the training program of their choice.

In contrast, individuals who had not yet chosen a pathway within medicine reported that they were more influenced by their experiences during education and training, and were also open to receiving a wider range of career information, support and advice.

Stakeholders consulted for this project, who have a broader perspective of the larger workforce system, were very clear about the need for doctors in training to have back-up plans or second choices of career paths. However, while a number of JMOs did indicate that they were exploring more than one option, there appeared to be a perception that being anything less than single-minded about one's choice of career would lessen one's chance of success in gaining a place in a vocational training program. Even 5th year medical students were concerned about the need to demonstrate their commitment to attaining entry into highly competitive procedural medicine training programs.

Participants reported that they felt under great pressure to make a decision about a career path early in their education, and medical students expressed some anxiety that they needed to know all they could about training requirements for particular medical careers so that they could tailor their postgraduate training accordingly. While this perception was widespread, the extent to which junior doctors had actually chosen their career path varied.

I had this nice idea that I could spend intern and resident year just making my mind up but that's not true at all. (JMO)

It may be that medical students feel more pressure to make this decision early because of the perception that their choice of hospital for internship is a critical one that may determine their chance of obtaining a vocational training place; consequently it is critical to ensure their choice of hospital is the most attractive one for the particular branch of medicine. This has extended to the general impression that the earlier a choice is made the better, potentially even before completing medical school, because then the PGY years can be positioned to meet the criteria of the chosen vocational training requirements. Medical students and junior doctors spoke of the need to decide where to seek a training position and to undertake medical education at the university linked to that hospital in order to increase the chances of being accepted there in years to come.

The only career planning we talk about is hospital choice...an easy thing to mention is the surgical residents here, of all the ones that were hired at [this hospital] last year only one is an external hire and I can't remember exactly what the numbers are

it's 12 or 13 or something so that gives you an idea. A lot of people say it doesn't really matter and you hear that a lot from the older consultants but the system has changed since they were around and there are a lot more medical students now. So you just really have to start where you want to be essentially. (medical student)

It is noteworthy that the vocational trainees interviewed for this project did not report quite the extent of pressure to choose during their earlier education and training years, and affirmed the importance of exploring options during the PGY years. This may suggest that the reported pressure to choose a medical career early, discussed among medical students and junior doctors, is arising as a result of the increasing competition for training places as the number of medical graduates increases. A number of participants commented that they appear to face greater competition than previous cohorts of doctors-in-training.

I guess traditionally in medicine people would do, I'm talking kind of our bosses now would do two or three different specialties before they became consultants whereas now we're getting pressured because of the vast number of graduates we're kind of getting pressured to speed up the time we're getting into the training programmes and not really given the mentality of yeah you can just try things out if you don't like it change. I think it's changed a lot, particularly in the last 5 years. (JMO)

Certainly the junior doctors participating in this project were acutely aware of the difficulty of obtaining a vocational training place for certain medical careers and the need to do everything possible, including additional degrees, to make oneself look attractive. Because of this perceived competition to gain entry into training programs, focus group participants appeared to narrow their choices quite early in their training.

It may be for this reason that participants appeared less interested in pathways that might take them out of the environment of the urban teaching hospital. This included the willingness to consider non-specialist careers and rural careers, discussed later in sections 2.4.1 and 2.4.2.

2.2 PRACTICAL EXPERIENCE

Positive first-hand experience plays a critical role in shaping the career intentions of medical students and junior doctors. Most participants agreed that they would be reluctant to choose a medical career without having had some immediate experience of working with consultants in that field. The influence of role models and mentors was also noted to be important in gaining an experiential feel for a medical career.

Hands-on experience gained through medical school and the PGY years allowed students and junior doctors to test out their interest areas and to varying extents receive feedback on their skills and aptitude. Placements undertaken as a student and junior doctor not only enabled individuals to assess their interest and aptitude in a specific area but also allowed them to assess whether the reality of working in that specialty might suit them long-term.

JMOs in reality are doing two jobs at once: working as staff in a hospital, and continuing their medical training and exploring where they are best suited to contribute to the health system. Some frustration was expressed that the discovery element of this latter task was diminished by workforce pressures.

For participants who had gone into their studies without a specific career in mind but had since identified the area they wanted to pursue, a successful placement was often identified as the central deciding factor. Conversely, participants also valued placements as an opportunity to eliminate options they had been considering, by experiencing what the job actually entailed.

I think I've always been influenced by the physicians I've worked with or talked with so very early on in 3rd year I did a 1 year research project in paediatric endocrinology and I really loved all my consultants and I liked the lifestyle and was interested in endocrinology always that was my dream and then when I started working last year I met a lot of medical registrars and I got to see the training process to get to a consultant and that just turned me off completely and I don't want to get to that... so now I'm going to be a GP and specialise in diabetes in children so that ties in and works better for me. (JMO)

For these reasons, participants consistently reported that they would not consider a branch of medicine that they had not had the opportunity to experience, either as a student or in their early post-graduate years.

2.3 PERSONAL LIFESTYLE FACTORS

Recognition of the needs and desires for life outside of work is another area that can significantly shape career decisions.

The desire to settle in a specific area, for instance a metropolitan centre or a rural locality, can play a significant role in career decision making. A number of participants from the Sydney groups reported that they were only interested in living in Sydney or an equivalent metropolitan area. Others, currently based in Orange and Newcastle, expressed a preference for living in a country area. Within this latter group, a small number of participants chose medicine with the specific aim of moving to a rural or regional area on completion of their studies. The majority of these participants grew up in rural areas themselves and so had direct experience of living in these types of communities. Perceptions of a greater sense of community and higher quality of life in rural towns were cited as the core motivating factors contributing to their career choices, as noted earlier in section 2.1.

Some participants, both male and female, identified a desire to start a family at some point in their lives, and this was an important consideration in their choice of medical career. Female participants reported receiving advice from senior doctors during their training and student placements about specific areas that were not compatible with starting a family or raising children. Others expressed frustration that many of the competitive training programs, such as surgery, were not able to support extended maternity leave or part-time training for new mothers.

The way you get competent as a surgeon is by experience and if that's being diluted [by more trainees coming through the pipeline] it is going to mean longer training for us unfortunately. And also something I've been asked to bring up is the provision of part time training and the support available for that, particularly for women. For ENT it's not an option, you just can't do

it, for general surgery there is one position. (vocational trainee)

For many female students and junior doctors, understanding the impact of having children on their ability to complete training and achieve a consultant position was therefore seen as a significant element of career planning. Women were not alone in this, however. A number of male participants stated that one factor in their choice is the potential to be able to spend time with their future children, and indicated that some medical careers were understood to be less compatible with family life.

In my sort of cohort of surgical registrars looking around the exam room which is how I gauge it it's probably slightly more male, 60% but the thing is of the people who started at the time I started who finish when I finish will all be male most certainly. Anyone who has a child will be two years behind, you're not allowed to take more than 6 weeks off in 6 months or the term doesn't count so you lose 6 months straightaway and without a viable part time training option people will spend longer out, most people I only know two people who've had babies and one is going to take 6 months off only because she can't afford to take more but the other is going to take a year and my wife is going to take a year. So if the part time training was available they'd probably come back earlier. (vocational trainee)

Male and female participants alike reported that their partner's career also played a role in their career planning. This was primarily related to location in the first instance, and influenced choice of training hospitals in order to accommodate the needs of their partner.

Potential income was not raised by medical students and junior doctors as a major influence on career decision making, except in relation to choosing against careers which are perceived to be less lucrative, such as generalist and non-specialist careers. However, working conditions (which are often related to pay) were recognised to be important, and many people, even while still medical students, were looking ahead to consider what kind of life they want to lead.

When you finish your program they often say it just gets harder because you go to a private hospital and you're a workaholic and you see your kid like an hour each week you hear tons of that stuff so if you know that in the future you could at least plan for it, I'm going to be a private surgeon for a while until my kids are older and then I'll go back public and that culture is different ... different ways, physicians it's okay to be private but specialty vocations are different. (medical student)

2.4 PERCEPTIONS REGARDING MEDICAL CAREERS

The primary source of career information, support and advice that junior doctors received regarding medical careers was via personal recommendation and word of mouth. The advice of senior doctors was highly regarded by all focus group participants. Junior doctors and medical students alike sought out consultants and also vocational trainees, to learn more about the reality of working in a particular branch of medicine. Many participants reported that the most valuable information they received was often from doctors just one or two steps ahead of them on the career path. For example, interns will look to residents for advice on which placements are most rewarding, while residents will look to registrars for advice on what they can do to increase their chances of getting a place on a particular training course.

Views of medical career areas and pathways are often informed by the opinions of more senior staff under whom junior doctors train. The consultants who were admired and respected, and who were seen as approachable, were often the ones who were most influential in encouraging junior doctors to choose a particular career path. Conversely, consultants who were considered difficult to work with or unapproachable often left the junior doctor with a less favourable impression of that medical area.

If you get a really amazing mentor in one term you're more likely to choose that [specialty] over another one where you get trodden on by a tyrant or something like that. (JMO)

The influence of respected clinical teachers and mentors cannot be overestimated. Focus group participants suggested that the exposure to various branches of medicine through medical

school and training placements was significant in helping them decide which career path to choose. Conversely, medical students did not often have exposure to some of the smaller and less visible fields of medicine such as radiology, pathology, public health and addiction medicine, and subsequently did not seem to consider them seriously as career options. This seems to confirm the view, reported earlier, that people wanted to experience a medical area before choosing that career path.

Many of the participants were committed to or seriously considering procedural medicine careers and there were a variety of less favourable opinions expressed about medical careers that were less interventional, such as psychiatry (more talking than action) or palliative medicine (lack of cure).

You get to do a fair amount of procedural stuff [in anaesthetics] and there's a very measured result when you work, it's very rewarding, I suppose like surgery, it's broken, it's taken out it's fixed, it's very clear and I don't have to wait 6 months for a result to see if it worked, anaesthetics patients are asleep, patients are awake again, it's a hell of a lot more complicated than that but it's a fairly immediate outcome. (JMO)

It may be that the cohort who chose to participate in these focus groups were simply more motivated in the procedural direction than the larger population of medical students and junior doctors. However, it does seem apparent that fewer positive messages were given out regarding less procedural career paths.

General practice was recognised as historically being considered a generalist pathway, although it was acknowledged that this had changed and general practice is now a competitive vocational training pathway. Junior doctors remarked upon the fact that general practice had often been considered a backup plan but now was quite competitive and difficult to enter. However it was still perceived as encompassing less procedural and more relational medicine than other hospital-based clinical careers, and as attracting less prestige and financial reward.

People say to you are you going to specialise or are you going to just be a GP – GP is a specialty and we have to remarket GPs and I guess what you're saying is if you're young and just out of medical school you don't want to be perceived as being just a GP and it's a very important role and specialty within itself...it's incredible, when done well it's amazing. (JMO)

Those in favour of general practice cited lifestyle factors and, in rural areas, the opportunity to function as a proceduralist with visiting hospital rights. Other benefits of general practice included a respected position in the community and the ability to get to know patients.

Other generalist roles, such as general surgeon or rural generalist, were not considered widely by focus group participants. Largely, this appeared to be because these roles were seen as subsidiary to more technical specialists and therefore less desirable. Some expressed a perception that these roles would provide less autonomy, and would be assigned less interesting and challenging medical work.

Psychiatry was discussed in every focus group as a result of the draft workforce profiles that were tested with each group, the example provided being that of psychiatry. Psychiatry was also considered a less attractive career path, largely because of the difficult nature of the patients' presenting problems and behaviour, and the inability to see immediate outcomes. Participants were often surprised to read the workforce profiles and learn about the lifestyle factors associated with the work as well as the growing need for psychiatrists.

Other medical careers that were considered less attractive with those without a lot of patient interaction, such as pathology and radiology. Participants recognised that these careers might provide more regular hours and less stress, but this was balanced by the fact that the work might be highly routine and without the ability to see a patient through from start to finish, and therefore see an outcome to their work.

2.4.1 PERCEPTIONS OF NON-SPECIALIST CAREERS

None of the focus group participants were considering a non-specialist career, using this term to refer to the career medical officer (CMO) role and the hospitalist role.

There were low levels of awareness regarding the CMO and the hospitalist roles. In discussion, participants generally agreed that the roles were not promoted as viable options to junior doctors, with many specialists speaking pejoratively about non-specialists. It was also considered that there were lower financial rewards and a limited career pathway for CMOs.

The thing I want to mention about CMOs is we get, my experience is they get panned by other doctors, other doctors say he's a CMO he's [expletive] he doesn't know what he's doing or they didn't go through any training programme, not myself but I've heard a lot of other senior doctors say that. It kind of turns you off the idea. (JMO)

At the same time, those who knew of or had worked with CMOs often considered that they provided a consistent presence in a medical environment and for that reason were often more aware of what was going on.

I think the people I've worked with who are CMOs, I think it improved in how they stood in my view, especially in the ED where there's ED physicians but a lot of CMOs. It seemed like it was just the CMO that made that call 'I think we should do something else', so yeah I don't know, I think they're more valuable than specialists sometimes. (medical student)

Conversely, the very generalist nature of the role, which lends itself to providing that stability and continuity of care, is perceived to be undervalued in an environment of increasing specialism.

If you get a critical mass of sub specialties and all you get is the general stuff that no one else wants and if you're not an FRACP trained or equivalent - you're a hospitalist which I see the government pushing - you're a glorified registrar, CMO. And if you don't get the - even though you're probably as experienced as a lot of the bosses - you don't get any of the financial rewards and you still end up working shift

work and do registrar jobs for the boss above you that doesn't sound very appealing to a lot of us.(JMO)

The hospitalist role, and its distinction from the CMO role, was not well understood by focus group participants, and there were low levels of awareness regarding both training opportunities and career opportunities.

Stakeholders did acknowledge that there was a lack of awareness of what these roles were able to contribute to the health workforce and that they were generally not well publicised. Both focus group participants and some stakeholders raised a concern that increasing the number of CMOs would diminish opportunities for registrars and would increase still further the competition for registrar positions.

Focus group participants considered that the non-specialist roles would provide limited prestige as well as limited autonomy and clinical leadership. When the hospitalist and the CMO roles were explained, it was recognised among focus group participants that these non-specialist roles could fulfil an important need within the system, and that there is a need to promote these in a more positive light. Stakeholders in particular were aware of the need to promote opportunities for the hospitalist role as one providing clinical leadership in medical administration and hospital and health system management. Medical students and junior doctors were generally unaware of this pathway into clinical leadership and management and participants appeared largely uninterested, although this may be a function of lack of knowledge and the influence of the opinions of senior doctors. It appears that generalist and non-specialist roles are not widely promoted in medical schools, and medical students' exposure is primarily to medical specialists, creating a culture in which specialisation is normative and non-specialist medical careers are perceived to be less prestigious or rewarding.

As levels of awareness are low, and medical students and junior doctors are focused on successful attainment of recognised positions, there appears to be a mild suspicion of new roles such as the hospitalist as it is not clear what place they will hold within the larger health system and what opportunities for success might arise. More than one junior doctor suggested that the non-specialist roles were being trialled in NSW and may not last, so that they may not be a secure career path.

2.4.2 PERCEPTIONS OF RURAL CAREER OPPORTUNITIES

As noted above, the intention to pursue a rural career continues to be substantially influenced by one's experience of growing up in the country. A few junior doctors without previous rural experience did note that their rural placements had influenced them to consider the potential for a rural career or at least spending some time working in rural or regional location.

I was also at a rotation in Orange last year and having spoken to the specialists there and the registrars there I now know I would quite happily work in Orange...because I quite enjoyed my term there but if I hadn't gone to Orange I would have no information whatsoever and even now other than speaking to those specialists I have very little information, I wouldn't know where to find that information or who to speak to if I'd never gone to Orange. (JMO)

The majority of participants considered that the opportunities for highly specialised medical careers were greater in a metropolitan city. At the same time, there appeared to be general awareness of the attractions of rural medical practice. Some junior doctors were actively considering rural careers in order to get away from the highly specialised, highly technical urban teaching hospital environment. For these doctors the decision to seek a position in a regional or rural hospital was pragmatic, to avoid the kinds of competition and pressure that seemed to them to be part of the life in the metropolitan hospital system. There also seemed to be a perception that there is greater job security in rural and regional locations, perhaps because there is not as much competition and there is currently a maldistribution of medical practitioners.

For others, their personal experience of rural and regional life attracted them to that location, with some saying that they would not consider moving to an area without having had prior experience of the working environment, the community, and the lifestyle. Motivating factors for considering a rural career included:

- the pace of life and perceptions of a more relaxed working environment
- opportunities for quality of life and a positive environment in which to raise children
- variety of medical presentations, e.g. offering the opportunity to work and be exposed to a variety of medical practice

- perceptions of greater involvement with neighbours and community
- less competition for jobs and greater job security
- recognition of greater need in rural areas and a desire to contribute to addressing health equity.

Those who expressed an interest in living in the country were more positively disposed towards general practice or a more generalist (physician, surgeon) career.

I was definitely, even being someone from the country, growing up in the country I always thought I was a city person and it's only having that experience that this isn't so bad it's actually better than living in Sydney that I actually came around to thinking this is somewhere I could imagine myself, having trained in the city going back and practising. (JMO)

A number of participants indicated that they might consider a rural position in the future if they could ensure that spending time in the country would not diminish their opportunities to return to the city later. For these doctors, working in a rural location would provide a more relaxed experience and an opportunity to contribute to an area of need; however, their concern is not to impede their advancement within a particular medical career. This may suggest that if rural medical positions could be viewed more positively and promoted as offering an opportunity to enlarge one's medical experience, and particularly if it could be viewed as an asset when applying for vocational training positions or for consultant positions in the metropolitan environment later in life, more people might take up a rural position at some point in their career.

2.4.3 PERCEPTION OF RURAL PGY PLACEMENTS

For medical students and junior doctors wishing to live in Sydney or an equivalent metropolitan centre, career plans often focused on staying in the city in order to gain requisite experience and connections within the hospital and career pathway of choice.

For participants who were uncertain about their long-term plans, training placements at a rural or regional hospital were perceived to pose a potential risk to entering urban training programs, and completely incompatible with some vocational training pathways that may only be available at a major metropolitan hospital. This is reinforced by the requirements of some vocational training

programs that cannot be undertaken anywhere other than an urban teaching hospital. For this reason some people who may be interested in working rurally may find themselves spending significant parts of their training in the city and ultimately remaining in the urban hospital system.

In Orange, all of the focus group participants were enrolled in the Rural Preferential Recruitment (RPR) Program. Participants considered that there were benefits to the program as long as one was firmly convinced about a long-term rural career, as the program provided experience in one's chosen field and location, and allowed one to make valuable connections with more senior clinicians. The benefits of rural placements included the following:

- a more conducive learning environment, with less competition and stress
- less competition for placements
- a more hands-on learning environment with greater opportunity to 'scrub up' and to experience a variety of work
- more opportunity to get to know senior doctors and consultants, seen to be an advantage when seeking advice and when requiring referees for vocational training programs.

However, it was widely believed, by both medical students and junior doctors across all locations, that spending time training in a rural location would diminish one's chances of returning to the city later.

I think I saw that program and I thought it's really tempting it would be nice to have a safe job in a place of my choosing but at the same time I think I had the same view that if I don't aim for a Sydney hospital then I've sort of shut a few doors and it would be a lot easier to go to the city and then get out from there than to go to the country and get back in if I wanted to. (JMO)

In Newcastle, students and JMOs who expressed interest in training and working in a regional or rural location reported being daunted by the RPR Program application process, which includes a written submission and interview, as this made it significantly more involved than the regular intern application process. Some participants were also less attracted to the RPR because of their desire to work in a range of environments before focusing on rural medicine.

Concern was expressed about the quality of training received in rural locations in the procedural branches of medicine. Contrary to the widely held view that general practice in rural areas provides a greater depth and breadth of clinical experience than in the city, participants considered that for some medical careers work in rural locations was more general and of a more narrow scope, with all the 'interesting' cases being sent to the city. While they would like more training positions in rural areas, some participants felt that the kind of work that would be done in those training positions might not be on the same level as that experienced in Sydney. There was a perception that the work undertaken in rural hospitals would not provide the kind of training experience needed to enter some of the more competitive vocational training programs.

The perceived disadvantages of a rural training pathway often mitigated against choosing a rural career. Even people who were very clear about their decision to embark upon a rural career in the future considered it may be better to train in the city and then move to the country rather than to train in the country and try to return to the city. Participants strongly believed that time spent training in the country would inhibit opportunities to return to the major urban training hospitals. This was due to the perceptions of the difficulty gaining a place in a vocational training program for some of the more competitive careers, and a perceived need to be in an urban training hospital where one is visible to consultants and can meet the 'right' referees. Just as medical students were concerned that choosing the right internship hospital would influence their success of entering a vocational training program, junior doctors were concerned that spending time in the right hospital would influence their opportunities to build the networks and experience that would lead to success later in their career.

A number of participants suggested that if systems could be changed to ensure that a rural placement would not penalise them in their vocational training goals, they would be more open to considering a rural training placement. This could be improved by building stronger links between rural and metropolitan teaching hospitals, so that lectures and teaching resources could be shared between the two, and rural students could still have access to specialised training not necessarily available in regional or rural hospitals. There was a perception that access to training and professional

development was more difficult in rural and regional locations as it tended to be Sydney-based.

3 Improving available information and advice

That's definitely word of mouth I think. From personal experience I did a rotation in cardio-thoracics and absolutely loved it, that's what sold me on surgery and for the majority of last year – I did some research into that and I spoke to some of the fellows and a few more people in different hospitals and found out it's an extremely difficult programme to get into, there's not a huge demand for them anymore ... cardiology and those options were big enough to kind of switch my decision to not do that as a career so once again if I had just kind of gone with my clinical experience and ignored the word of mouth then I would have had a completely different view of the profession. (medical student)

3.1 INFORMATION NEEDS AND PREFERENCES

The types of information sought by both medical students and junior doctors fell broadly into two categories:

- information regarding training pathways
- information regarding vocational choices – job prospects, work/life balance, pressure and competition, pay and conditions, flexibility, future workforce requirements.

Stakeholders also reported that medical students and junior doctors need more information regarding training positions and their alignment with strategic workforce planning, and more advice to assist them to adjust their expectations to the reality of working life. While there are some reports and forecasts regarding workforce planning they are often not easily accessible to medical students and junior doctors, or in an easily digestible format. Providing a summary of key findings or key points which highlight future workforce needs may influence some doctors' decisions regarding career pathways.

“Medical students tend to get very attached to what they want to do”, according to one stakeholder, and yet their exposure to the full range of experience of any one medical career is limited. Even during the PGY years the extent to which junior doctors see the full range of activity

undertaken in the public or private setting is limited. Some stakeholders did consider that there is a need for very practical information to be provided early on regarding the realistic expectations of future demand for an area of medicine (eg whether there will be an oversupply or undersupply), and what that working life will require. Additional information regarding the attributes best suited to particular careers, eg the kind of temperament, skill set, and personality characteristics that are most likely to find satisfaction in a given branch of medicine, could also be useful to assist students and junior doctors to determine which path might best suit them. One stakeholder suggested that greater focus on career planning throughout the long training trajectory would also potentially assist doctors to develop realistic expectations and ensure that their vocational goals remain aligned to the best possible pathway for them. A number of stakeholders also highlighted the potential for formal mentoring programs, in which doctors are linked with someone farther ahead of them on the training trajectory (eg pairing medical students with junior doctors, junior doctors with vocational trainees), for ensuring doctors are making informed vocational decisions.

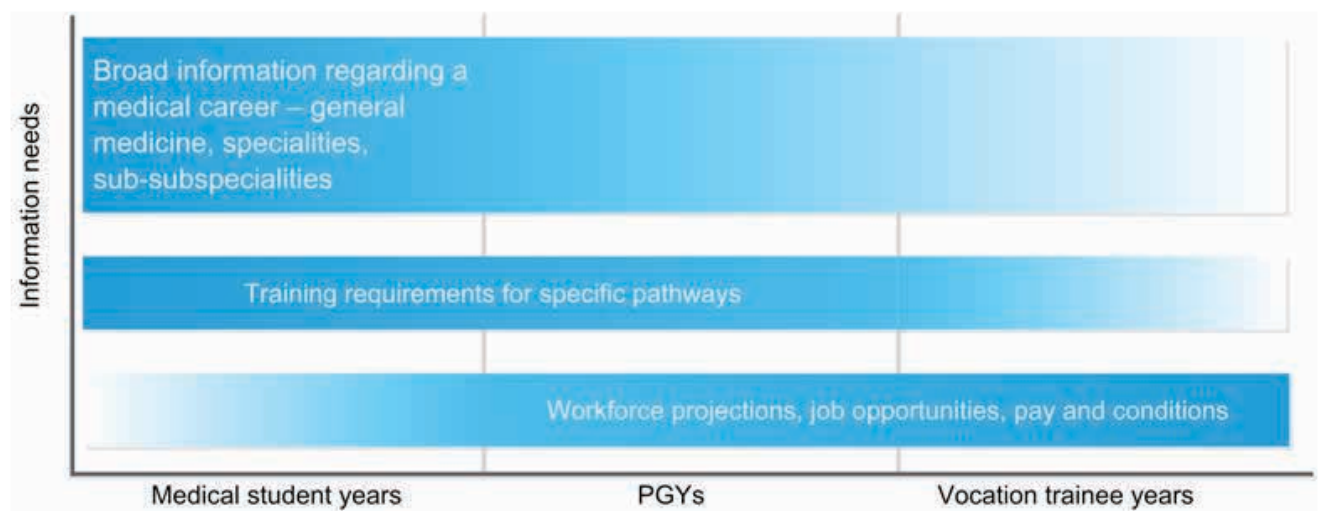
It was also noted by more than one stakeholder that there is a need for information at the national level regarding workforce priorities and supply as well as at the state/territory level, as in the future people may need, or desire, to move more widely

in order to find employment. This is a challenge for Australia's state-funded medical training in which there is an imperative to retain clinicians within the jurisdictional health service in order to ensure a return on the investment in training.

There are different information needs along the training trajectory, illustrated below. Essentially, medical students and junior doctors both reported needing more general information regarding

vocational pathways, and more transparent information regarding pre-requisites and selection into vocational training programs. Both cohorts also considered that this information was needed earlier than ever before, with some suggesting that even high school students could be considering their choice of medical career in order to prepare themselves adequately to compete for a training place.

FIGURE 1 - INFORMATION NEEDS ALONG THE TRAINING TRAJECTORY



Medical students were particularly concerned about making the right decision regarding the choice of hospital or training network for their internship. This decision was driving some of the perceived pressure to choose a career pathway even before the intern year, as there was a general perception that some hospitals would be more advantageous for future vocational prospects than others. Thus, choosing the 'right' hospital would lead to an optimal training experience and exposure to the 'right' referees in order to gain entry to the vocational training program of their choice. This perceived pressure to choose a career path early in one's education also influenced the extent to which some students were willing to consider alternate pathways or Plan B options, as both medical students and junior doctors indicated that having a Plan B might suggest one wasn't serious enough about one's original intentions.

By contrast, junior doctors had made that initial decision regarding their internship year and were now deliberating on the consequences of that decision for further training. Their concerns continued to focus on the next decision they needed to make, however they were often a little more clear on their direction and also by this time

had begun to have more experience of the hospital setting and to be a little more clear about their own preferences and aptitudes for various medical careers. While still concerned about making the 'right' choices, they were also beginning to be a little more confident in their own ability to choose and to weed out those careers which did not interest them. The information that junior doctors required was often more specific about entry to vocational training programs and what was required in order to be successful. Junior doctors were also a little bit more concerned about information regarding the expectations and lifestyles of the various medical careers as they began to focus on what their actual lives may be like when they completed their training.

3.1.1 INFORMATION REGARDING TRAINING PATHWAYS

Information regarding training pathways was a primary concern for medical students, and PGY1 doctors. The types of information which were most sought included the following:

- General information regarding what medical careers exist, what they require, and where they

are primarily situated (eg private/public, rural/urban, hospital/community settings)

Sometimes I just Google literally 'what's it like to be a... (JMO)

- Information about training places – which hospitals offer them, what career pathways are offered

Unless you're at one of the major, major centres you really can't do it or even if you go to Albury or Newcastle, John Hunter you'll never get onto the programme and the reason for that is the college requires you have 10 plastic surgeons give a personal reference to you, they don't have 10 plastic surgeons at that hospital. (medical student)

- Information regarding the selection process and what is required for vocational training

The Royal Australian College of Surgeons... publishes a guide for each specialty as in what they consider so it tells you what percentage each component of the application counts for, what you can and cannot get marks for and so you know it definitely tells us what you need to do. (medical student)

- Number of training places, competition for places, and standard required for qualification

Like high school people tell you how good the course is but when you're in high school you're like I just want to know if I can get in, what's the mark and I know the college of surgeons does that this is the median mark and you can kind of work out what you need to do for that ... I don't have to get full marks I only have to get 50% that's what everyone else is doing...you hear people it freaks me out some spend 7 years [in training] and get kicked off the next year .. they didn't have time to study ... (medical student)

- Job prospects in the future

The college regulates it because they predict how many people are outgoing, will retire or die and they regulate the intake whereas the biggest thing I hear people complain about with physician training is that they let so many people on but you

graduate 20 people a year for 1 job every 5 years because you are literally waiting for someone to retire or die and that's the biggest issues with physicians, it might be easy to get but you have to do multiple PhD's or multiple fellowships and a PhD so it's crazy so you're kind of weighing up whether you want to hang in limbo while you do training or hang in limbo after you've done your training so that's the biggest thing.(medical student)

Some PGY2 doctors still sought information regarding training pathways, and in particular about the criteria for entrance into their chosen branch of medicine. Concern was expressed that entrance criteria for some colleges can change, potentially damaging one's prospects for selection. Application processes, timing, and cost were all important but participants reported having to search for this information and even a perception that colleges made it deliberately difficult to find in order to ensure only the most motivated applied.

Junior doctors and medical students both noted that with increasing competition there is an increasing sense that one needs to go above and beyond the formal requirements of the college in order to be accepted into vocational training programs. For example, in one medical career it was reported that while a PhD is not mandatory, so many people are now doing PhDs in order to be attractive as candidates that it has almost become a requirement in itself simply to keep up with those competing for training places. Participants reported being very aware of what they might need to add into their CV in order to be perceived as an attractive candidate, such as research projects or volunteer activities.

I was targeting this job from finishing med school onwards, everything I did, I made sure I got the intern, resident terms I needed for my CV, I made sure I did a research project with the right consultants, I made sure I was a member of the AMA council of residents and registrars... I was deliberately targeting all the things I needed to accomplish to make that position happen. (vocational trainee)

Participants reported that although information was available, they often had difficulty in finding it, and still relied heavily on word of mouth from other students and junior doctors, or those ahead of them on the training pathway.

3.1.2 INFORMATION REGARDING VOCATIONAL CHOICES

Medical students also sought information regarding the implications of vocational choices, but this became a primary concern of junior doctors and, to a lesser extent, of vocational trainees, since these latter had already made their choices. The type of information sought primarily regarded job prospects, but also included:

■ College requirements

I totally decided halfway through internship that I wanted to be a surgeon, I toyed with surgery and paediatrics for most of medical school and as such my research was ENT and paediatric based so I could use it either way but once I decided I wanted to be a surgeon I made sure I got those terms, I made sure that I was on the right committees, I looked at the CV criteria and I looked at what I needed to do and you just do it. (vocational trainee)

■ Competition for jobs and future workforce demand

I know from word of mouth that one of the plastic surgeons left a job at St Vincent's Hospital just this last year and there are two more openings for consultant jobs at RNS for plastics and that's a one off this year and next year that there are 3 jobs open and then you'll have several years where no jobs are open, how do you put that in data and how does someone predict when someone is going to retire. (medical student)

■ Variety of work and setting

Something I started thinking about last week because I'm quite interested in teaching as well post university so I kind of asked around about conjoint positions and how I would go about it going down a more academic route or at least doing some academia whilst being in a training programme so I think a little bit of information on that would be good because I'm sure some people come out the other end of medicine and are like can I lead a natural life in hospital I'm going to finish my training and go to uni I don't think there's much information on that. (medical students)

■ Pay and conditions

I think we think as doctors we shouldn't care about lifestyle and private practice we should be really concentrating on our patients but in reality we're just human like everyone else and we have families and when push comes to shove I think it would be really good to have this is what a psychiatrist can do they can work in the public sector they can work in the private sector, this is how many days a week they can work, on call, all of that kind of stuff, even how much they earn, just to get an idea. Maybe psychiatrists don't earn \$50,000 a year maybe they make a very good living or work good hours. (JMO)

3.2 SOURCES OF INFORMATION AND ADVICE

Medical education and other stakeholders identified a range of resources (other than the personal relationships and word of mouth avenues described above) available to provide medical students and junior doctors with information regarding medical career pathways and their training requirements. These included:

- HETI – website and events, phone app
- the Doctors' GPS developed by the NSW JMO Forum and published by HETI
- the various medical colleges, primarily through websites
- Directors of Postgraduate Education and Training (DPET)
- university and hospital-based career events
- AMA careers expo.

However, in contrast to stakeholders, focus group participants demonstrated a much lower awareness of information resources and indicated that the majority of information and advice is still sought and received from their peers, registrars who are ahead of them, and specialists themselves. The advice of senior doctors is highly regarded and is sought by medical students and junior doctors alike.

As noted in chapter 2, many participants reported that the most valuable information they received was often from doctors just one or two steps ahead of them on the career path. Interestingly, a number of focus group participants reported that they gain their information from the media and social media reports regarding workforce

shortages and requirements. Presentations in the media regarding cuts in funding to health services also appeared to influence levels of concern about doctors' future career prospects.

Participants reported that there was limited formal career planning assistance or advice available to medical students (or at least there was limited awareness of what might be available). This was reported to improve during the PGY years but most participants indicated that they would welcome more advice and assistance with their career planning.

All focus group participants were aware of the information available on the professional college websites. Most were also aware of the HETI website and its resources, although in their minds HETI was primarily associated with the formal job application process. Some people reported difficulties in navigating the HETI website. Those who had accessed the HETI JMO forum and training were positive, and some participants were

members of local networks. A few participants had tried the HETI app but reported it was of limited use in its current formant and most were unsure of its core purpose.

3.3 PERCEPTIONS OF EXISTING RESOURCES OR TOOLS

Four existing or potential resources were tested with focus group participants:

- the Doctors' GPS
- draft workforce profiles (in this instance, for psychiatry)
- a web-based aptitude test (in this instance, from the University of Virginia¹)
- a web-based video presentation of medical practitioners (in this instance, psychiatrists talking about their work).

Views about these resources are summarised in the table below.

TABLE 2 – FEEDBACK ON RESOURCES

RESOURCE	ADVANTAGES	DISADVANTAGES	OPTIMAL TARGET AUDIENCE
Doctors' GPS	<ul style="list-style-type: none"> ■ useful information about eligibility and application requirements, fees, and information about the training itself ■ all medical careers together in one place ■ provides details of where to go for further information ■ very well received 	<ul style="list-style-type: none"> ■ in book form is out of date very quickly (although in web form could be updated more easily) ■ would be useful to have salary information ■ might be more useful simply to have links to the college websites so that the information was always accurate because requirements reportedly change regularly 	<ul style="list-style-type: none"> ■ final year medical students ■ JMOs
Workforce profiles (e.g. psychiatry)	<ul style="list-style-type: none"> ■ very well received ■ useful information particularly about lifestyle and workforce ■ easy to read format (there were differing views on the two formats, with no one consensus, but a marginal preference for the less text-based layout) ■ concise ■ practical information 	<ul style="list-style-type: none"> ■ doesn't tell you enough about what you need to do to get there ■ would like more information on pay and location (rural, metro) 	<ul style="list-style-type: none"> ■ medical students and JMOs
Web-based video presentation of practitioners	<ul style="list-style-type: none"> ■ generally disliked ■ considered too general to be of practical use 	<ul style="list-style-type: none"> ■ felt like an advertisement ■ too much 'selling' – doesn't give the practical 'day in the life' information that is useful, or show the hard parts 	<ul style="list-style-type: none"> ■ high school students and early medical students
Web-based aptitude test	<ul style="list-style-type: none"> ■ considered useful by medical students, less so by junior doctors ■ useful to identify a number of medical careers that could then be explored further ■ fun but not to be taken too seriously 	<ul style="list-style-type: none"> ■ easily manipulable to get the desired answer ■ not sure how accurate it is 	<ul style="list-style-type: none"> ■ medical students

¹ See <http://www.med-ed.virginia.edu/specialties/Home.cfm>

The Doctors' GPS was one resource that was universally considered to be useful although many focus group participants had not seen it before. Some junior doctors and medical students were aware of the resource and had used it, and some junior doctors acknowledged that they had received a copy, often as part of an orientation pack, but had never looked at it before. Participants agreed that it was useful to have all medical careers outlined in the one resource and information provided about eligibility and training requirements was helpful, as was the link to further information. It was acknowledged that this information would very quickly become out of date, particularly where fees and training requirements may be concerned, and it was suggested that a disclaimer be included in any hard copy version.

The consensus of participants appeared to be that a combination of the Doctors' GPS and the individual workforce profiles would be the most useful information. There was not a convergent view on whether the GPS should be available in hard copy or on the web, but it was acknowledged that the information would be out of date very quickly and most participants recognised that a web-based resource could be more easily kept current.

The workforce profiles were very well received and, while there was not a convergent view on style, there was generally consensus that having these available on the web for each medical career option would be very helpful to provide more of a picture of the practical aspects of the role and the potential future demand.

This [the GPS] in combination with what you're saying [the workforce profile] would be awesome, how hard is it to get on and what's it like because if it's really hard and the hours are bad you probably won't do it but if it's hard to get on but if I get on the lifestyle is fantastic then I might persist in trying to go for it. (medical student)

Information about working hours and conditions was considered useful, particularly for women who may be considering having a family.

Participants were particularly keen to have information, which is not currently publicly available, about competition rates at all levels of the training pathway: entrance into PGY positions, entrance into vocational training, and prospects for permanent positions once qualified.

Fundamentally, however, all participants agreed that while these types of resources are useful, in the end their career choices are made, or validated, through their practical experiences in clinical training and their responses to working with colleagues and in the clinical environment.

I really think the only way to know what you want to do is go and see someone doing it, you can read about it all day long but if you haven't seen someone doing it you don't really know what it is, that's why medical school the way it's structured is so important, rotating through so many different jobs because you see what people do, every day. (vocational trainee)

The video presentation and the aptitude test were generally not considered as serious sources of information by any of the participants. This appeared to be because most participants are extremely focussed on what they need to achieve in order to get to the next stage in the process, and both the video presentation and the aptitude test were general and not informative regarding the requirements of the training trajectory. However, participants did consider that a video presentation that provided 'a day in the life' snapshot - including practical aspects of the job, workplace conditions, and the challenging as well as the rewarding factors of the role - would be of more interest.

3.4 OPPORTUNITIES TO PROMOTE WORKFORCE PRIORITIES

Although few participants reported a clear understanding of workforce priorities most were able to identify some of the top future health needs of the NSW population for example palliative and geriatric care, oncology and general medicine. The need for more doctors in rural areas was also widely recognised.

Participants reported that this information generally came from media stories, knowledge that Australia has an aging population and from the focus placed on rural careers by bonded placements and the Rural Preferential Recruitment (RPR) Program.

In the main, medical students and junior doctors reported that they did not believe that more information on workforce priorities would have a strong impact on their career choice; this was particularly the case among those who had already identified a chosen pathway.

Nevertheless there was a strong desire for more information regarding workforce priorities for different medical careers and locations, and particularly for information regarding strategic workforce planning. Those who had not chosen a career path were most likely to cite this type of information as valuable and express interest in where they could go to access this sort of data.

If there was some good projections about areas of workforce need, realistic ones I think it would actually influence people to make career decisions because if you know, if I know I go and be a psychiatrist or I go and be a GP I know that this is going to be the need in 5 or 10 years' time, this is the projected need maybe that does seem like a better option, maybe that is a clear path through a messy world I think that could influence choice. (JMO)

Information regarding the geographical spread of workforce needs was considered useful, particularly if it could be disaggregated by medical career. Junior doctors in particular were interested in information that would map specialty demand against geographical need, so that they could use this to map their own interests with their preferred locations.

There is a high level of anxiety regarding what is generally considered to be a crowded pipeline for training, and the future job prospects for doctors. This has an impact on the way medical students and junior doctors make their career decisions. Although a workforce plan does exist for NSW, few junior doctors and no medical students knew that it existed. It is unclear the extent to which it would change people's decisions, but there is some indication that greater promotion of workforce priorities might influence career choices.

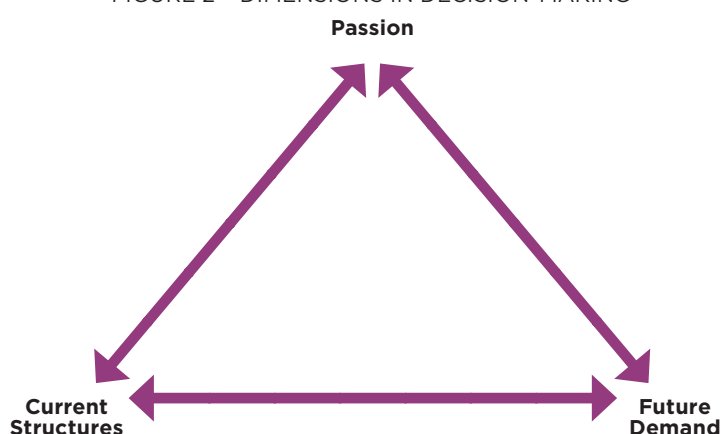
I do think people are making decisions based on that perceived availability or lack of availability in jobs for us in 5 or 10 years' time, we're looking 5 or 10 years ahead we'll be applying for fellowships, consultant positions and when we look from where we are now if we had a sense that the aim was to create 5 more positions across NSW, they're small numbers but I think it would make a difference, I think people would make different decisions and you're probably end up with a more competitive cohort at that stage and you'd be choosing potentially better specialists from a group that have made informed decisions and I think it would flow over at that point. (JMO)

4 Implications and recommendations

There is an enormous disconnect between what the hospitals want and what doctors need. Especially, this is just an enormously long apprenticeship ... what they need is continuous teaching, like continuous teaching and to experience all the aspects of whatever job they're doing at the moment so they can make a good decision about what they want to do, have a thorough understanding of what everyone else does because at some point they will be a type of doctor and they will need to refer, consult, if they have no idea what you do they'll be useless ... if the new GP doesn't know what sorts of things gastroenterologists do he'll make an inappropriate referral to someone else who will then see this patient and go that's not for me that's for this person and round and round they go and that's where it's all going. (vocational trainee)

Medical students and junior doctors are feeling pressured to make vocational decisions earlier and earlier. They are seeking to learn as much as possible about the health system, its structures and its needs, in order to find a place within that system in which they can make their own contribution. Currently, this appears to be a two dimensional encounter between the passion of the junior doctor and the need of the current system. However there is a third dimension which medical students and junior doctors alike are seeking to add to their decision-making: the projected future workforce requirements and opportunities. Resources that participants would find most useful will address all three of these dimensions in decision-making as illustrated below.

FIGURE 2 - DIMENSIONS IN DECISION-MAKING



Stakeholders consulted during this project, and in documents provided to the research team, indicated that much of the perceptions presented in this report are already well known in the medical education and training sector. The new perspective that seems to have emerged from the focus groups is the pressure medical students and PGY1s feel to choose a specialty before they have had a full exposure to a wide range of career pathways. The need to choose early, in order to prepare for applying to a vocational training program, must be balanced with the need for doctors to be exposed to the breadth of medical practice. Some stakeholders considered that early specialisation may prevent doctors from developing strong general medical knowledge and skills. At the same time, the evident competition for vocational training, particularly for some medical careers, leads inevitably to junior doctors focusing solely on admittance to the vocational training, and perhaps limiting their opportunities to be exposed to other aspects of medicine.

A number of stakeholders (consulted for this project and in previous consultations) have endorsed the concept of requiring junior doctors to have a career plan, and for greater resources to be made available to assist doctors with career planning. The career framework identified as an activity under strategy 8.1 in the *Health Professionals Workforce Plan 2012-2022* will go

some way to giving some structure to the provision of greater information, advice and support to junior doctors as they navigate their way to vocational training. Increasing career planning opportunities for junior doctors should also increase the willingness of junior doctors to consider alternative options in addition to their first choice (eg having a Plan B) and offer opportunities to promote under-subscribed specialties and non-specialist pathways.

The question of who is best placed to provide career planning and advice is not easily answered by the findings of this consultation. However, it is clear the medical students and junior doctors place a great weight on advice provided by medical educators, directors of postgraduate education and training, and clinical supervisors. All of these roles will have an influence on a doctors' career choices. Some of the views presented by these mentors and role models clearly impart pejorative opinions regarding certain specialties, and certainly there has been reported a lack of positive messaging regarding generalist and non-specialist roles. Whether career planning is formalised as a responsibility of a specific role, or left as an informal activity that junior doctors are encouraged to undertake, there is a need to improve the information and implicit messages that are communicated regarding the broad spectrum of medical career choices.

The low levels of awareness regarding existing information sources and career planning resources suggests that what is needed is not more resources but better promotion and utilisation of those that already exist, including better dissemination of workforce plans and future projections. The exception to the need for new resources is the draft workforce profiles, which were generally well regarded and considered useful by all focus group participants.

In particular, although the Doctors' GPS is reportedly distributed widely to universities and hospitals, few participants reported having seen it, and those who tried to find it electronically reported that it was difficult to locate on the HETI website. This resource, widely promoted and maintained electronically to ensure it is up to date, could meet a number of the information requirements identified by medical students and junior doctors.

Focus group participants were eager to have more transparency of information regarding acceptance rates and competition for vocational training

places. It is recognised that this information is under the control of the colleges, however it may be that the MoH may be able to advocate for greater transparency of this information. Stakeholders did note the importance of making sure that junior doctors have realistic expectations of their prospects in the most popular medical careers, so that doctors are not held back from other pathways should their first choice not be available to them. Increasing information about acceptance rates and completion rates for various Fellowship programs would assist doctors to make informed decisions about their future training pathways.

As noted in section 3.1, doctors-in-training will have different information needs at different points in their training trajectory. A single resource will not meet all of these needs, nor will a single medium for a resource. While it was generally agreed that most resources should be available electronically, there were still those who valued receiving information in hard copy.

It appeared clear that the information most junior doctors are seeking is not the 'how to' of training (eg application processes and such), much of which is available on the HETI website as well as the websites of the various medical colleges. Students and junior doctors are much more concerned about the competition for places, the job prospects and opportunities, and their likely chances of success.

The data gathered through the stakeholder workshop and interviews, and the focus groups, lead us to make the following recommendations.

Recommendation 1: Consideration should be given to adding a section on the HETI website specifically for medical students and junior doctors where greater information could be available regarding the practical implications of vocational choices, eg. 'real life' scenarios for different medical careers, and available information regarding workforce planning and future opportunities, including potentially mapping future workforce needs by medical career and geography. HETI is well known, although primarily for the internship application process, and could become a central repository of information regarding vocational career choices.

Recommendation 2: The Doctors' GPS should be maintained as a primary resource, available in both electronic and hard copy versions. It needs to be

promoted more widely and in particular its placement and visibility on the HETI website could be improved to make it easier to find.

Recommendation 3: The workforce profiles tested in the focus groups should be further developed and disseminated widely. These could be made available on a dedicated section of the HETI website for medical students and junior doctors. In electronic format they will be easier to update and maintain.

Recommendation 4: Consideration could be given to formalising mentorship programs to link vocational trainees with JMOs, and JMOs with medical students. As students and junior doctors are getting much of their information informally already, formalising a communication link would have the benefit of providing a pathway to ensure that accurate information is being transmitted through word of mouth.

Recommendation 5: NSW Ministry of Health should consider the potential for advocating greater transparency among the colleges with regard to selection criteria and acceptance rates, as this has the potential to influence career choices.

Recommendation 6: Focus group participants identified perceived or real barriers to returning to metropolitan vocational training after rural placements. This included concerns that training in the country would also hinder progression into metropolitan senior consultant roles in the future because of perceived lack of peer networks and depth of clinical experience. NSW Ministry of Health should consider further research to understand the extent to which these perceptions are real, and possible responses to improve the attractiveness of training in rural locations. This might include a review of the RPR application process, as there was some (but not widespread) opinion that the lengthy application itself was a deterrent to applying for the program.

Recommendation 7: Consideration should be given to ensuring that clinical, education and training leaders are able to provide positive (or at least not pejorative) promotion of generalist and non-specialist roles within the health system, as medical students and junior doctors give weight to the opinions of senior doctors in considering potential future career paths.

Recommendation 8: Given the levels of concern expressed by medical students regarding the need to choose a career path early in their training, information resources regarding vocational options should be provided to medical students as well as to junior doctors. The following avenues could be considered further:

- A more visible web portal for aggregated information, either through HETI or some other centralised electronic location, would assist students and junior doctors to find information more easily. This could include direct links to the professional colleges so that information can be kept current for each training program.
- Directors of postgraduate education and training provide a natural conduit to information provision to doctors-in-training, with universities forming the obvious conduit to medical students. An increased focus on career planning could provide an opportunity for directors to engage junior doctors in discussions and information sharing regarding career options.
- Formalising a mentoring program, in which interns are mentored by residents, and residents by vocational trainees, would provide an additional, structured conduit for disseminating information to assist career planning.
- While the Doctors' GPS has been disseminated in hard copy to both universities and to doctors-in-training, the awareness of this resource appeared to be low and further consideration should be given within each of those avenues as to how best to ensure the resource is more visible.

Appendix A Stakeholder organisations participating in consultations

TABLE 3 – STAKEHOLDER ORGANISATIONS PARTICIPATING IN CONSULTATIONS

RESOURCE
Western Sydney LHD
Western NSW LHD
HETI
Sydney Children's Hospitals Network
Sydney LHD
St Vincent's Health Network
South Western Sydney LHD
Nepean Blue Mountains LHD
Murrumbidgee LHD
Hunter New England LHD
NSW Rural Doctors Network
NSW Medical Students Council
HETI JMO Forum
AMA Council of Doctors-in-Training
NSW Ministry of Health

