Choosing a medical specialty

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Introduction

Choosing a medical specialty is a complex, dynamic process that happens iteratively over a period of years. The influencing factors may be clustered broadly into three groups: personal (e.g. background, personality and personal circumstances); experiential (e.g. curriculum and learning environment); or related to the nature of the training and work (e.g. patients, colleagues, work pattern, culture, rewards, curricular requirements, or job prospects). For each student or trainee, the relative contribution of these factors will vary.

This article draws on experiences over my career, as well as insights gained through surveying students for the New Zealand Medical Schools Outcomes Database and Longitudinal Tracking (MSOD) project for over a decade. We are indebted to those of you who fill out these surveys both as undergraduates and in the postgraduate years, as the data helps ensure Aotearoa/New Zealand (NZ) has the future medical workforce it needs.

Further information and MSOD reports may be found at http://www.otago.ac.nz/medical-school/undergraduate/medicine/msod/index.html

The broader context of medical workforce development

Apart from students, doctors and patients, there are multiple stakeholders in the outcome of medical education and training. Medical schools and postgraduate training bodies such as the Medical Council of New Zealand (MCNZ) and Colleges and Colleges are expected to produce doctors who will go on to fill all the medical roles needed to deliver health care equitably across NZ. Another key stakeholder is Health Workforce New Zealand (HWNZ) which contributes funding to postgraduate training.

Specialists are needed in community and hospital settings, in clinical or laboratory type roles, and in public health. Note that the private health sector in NZ has stayed fairly static at around 20% of health care spend and is unlikely to expand, so most jobs are in the salaried public sector. A decade ago it was estimated that up to 50% of NZ's doctors would be needed in general practice/primary health care.[1] At the time, NZ was heavily dependent on doctors trained overseas to fill workforce gaps, particularly in general practice. This was the main driver for the government decision to significantly increase significantly medical student numbers and training places in general practice. As these increases are relatively recent, the full effects have not yet been realised, including the extent to which they impact on job and training opportunities for individual graduates.

A diverse cohort of doctors is better able to meet the health needs of the population. Selection for medical school and successful degree completion are critical steps in this regard. While admission pathways for Māori and Pacific students have been in place for many decades, rural admissions are more recent. The latter were based on the strongest predictive evidence we have for future careers: students from rural areas are about three times more likely than their urban counterparts to go into some form of rural practice.[2,3] However, the same studies show that half of rural-background students do not return. Fortunately, these are more than offset by urban students who wish to move to rural areas, underscoring that factors other than background are important in career determination.

Is there one ideal medical career or location?

You have been chosen for your potential to be a knowledgeable doctor with professional qualities. All medical roles are intellectually challenging and involve helping people. A hallmark of medical practice is analysing complex bio-medical-psycho-social information, often in situations of uncertainty, in order to make a diagnosis. Doctors develop and implement management plans, usually in consultation with patients and other members of the health care team. Teaching, research, innovation, and advocacy are satisfying avenues of medical practice, regardless of specialty.

Ideally, every medical student would end up as a happy and productive specialist for 30 years or more. This is a lot longer than you spend as a student. To achieve that fulfilment means you have to like the specialty, the location, the patients, and the colleagues from the health disciplines with whom you will work. However, at medical school it is not easy to imagine the kind of work you might be doing in 30 years. Not surprisingly, only 12% of NZ medical students are absolutely certain about their future career plans at the time of graduating, with 56% moderately certain and 32% not at all certain.[4] It is common for students to have approximately three specialty preferences at graduation, but these are usually in related fields such as broadly medical or broadly surgical.[4] Career confirmation occurs in the early postgraduate years.

Be assured that on the route to becoming a specialist, changes in career path or location are common and progression is not linear. People take time out, work part time, try different areas of medicine, or take longer over their training than expected. Serendipity may come into it and a job may find you. By this I mean an opportunity may present itself, or someone trusted may suggest a particular path that they think is a good fit for you.

Once in independent specialist practice, there is more scope to shape it to suit your interests or the time you want to spend in it. Examples include: working in two roles, one clinical and the other non-clinical, such as education or leadership; or having a special interest alongside a generalist career.

Given that many doctors change their minds about their careers but most would chose the same specialty again, it is likely that many of us could have had satisfying careers in one of a number of areas.

The context of learning and working

Context is important in career determination. Table 1 shows MSOD data from nearly 1000 NZ medical graduates who perceived the most important influencing factor on their preferred career choice was the 'atmosphere/work culture typical of the discipline'.[4] This was closely followed by 'experience of specialty as a medical student'. Within these factors are several important elements including the other health professionals, patients, and the way the team works together. The implication is that students/trainees have to experience this atmosphere; they are to imagine themselves performing in this setting. Note the relative unimportance of financial influences.

It is almost certain you will move locations, whether as a student, in training, or as a vocationally registered specialist. Indeed, this is likely to be advantageous. You will learn a greater array of skills and become familiar with other settings that you may not have considered. This is

Factor	Mean Influence Score	SD
Atmosphere/work culture typical of the discipline	**4.03**	**1.04**
Experience of specialty as a medical student	**3.96**	**1.10**
Interest in helping people	**3.95**	**1.12**
Intellectual content of the specialty	**3.80**	**1.09**
Influence of consultants/mentors	**3.77**	**1.08**
General medical school experiences	**3.74**	**1.10**
Self-appraisal of own skills/aptitudes	**3.72**	**1.01**
Opportunity for procedural work	**3.61**	**1.30**
Perceived opportunity to work flexible hours	**3.53**	**1.27**
Perceived amount of working hours	**3.48**	**1.19**
Type of patients typical of the discipline	**3.39**	**1.21**
Self-appraisal of own domestic circumstances	**3.21**	**1.22**
Perceived career advancement prospects	**3.12**	**1.24**
Availability of a vocational training placement	**3.09**	**1.22**
Perceived job security	**2.95**	**1.38**
Opportunity for research and /or teaching	**2.78**	**1.26**
Geographical location of most preferred specialty	**2.77**	**1.31**
Number of years required to complete training	**2.69**	**1.27**
Perceived financial prospects	**2.49**	**1.20**
Perceived prestige of the discipline	**2.32**	**1.21**
Risk of litigation and associated insurance costs	**1.98**	**1.10**
Influence of parents/relatives	**1.89**	**1.10**
Financial costs of medical school education and/or debt	**1.74**	**1.03**
Financial costs of vocational training	**1.69**	**0.99**

Table 1 Factors influencing most preferred choice of specialty ranked from most influential to least. Scale from 1=not at all to 5=a great deal.[4]

one of the reasons that all NZ students now have one or more general practice or hospital placements in rural or regional settings, with some undertaking longer rural immersion programmes. As mandated by the MCNZ, more house officers are undertaking general practice or community placements. Keep your mind open as you move through the various specialties and health care settings. Imagine whether this is an environment in which you could see yourself living, training, and working. How well do your aptitudes fit with those working in this area? Some students find it easier to exclude specialty areas, but in so doing, ask yourself why that is; it may help you understand what you like about your preferred specialty or specialties.

The intersection of jobs and training

In order to be able to train in a specialty, you need to have a job; you need to be employed by a District Health Board (DHB) or general practice. House officers and registrars are employed from year to year. Yet, postgraduate training in NZ is overseen and approved in the early years by the Education Committee of the MCNZ, then by the training committees of the respective specialty college (e.g. The Royal New Zealand College of General Practitioners, Royal Australasian College of

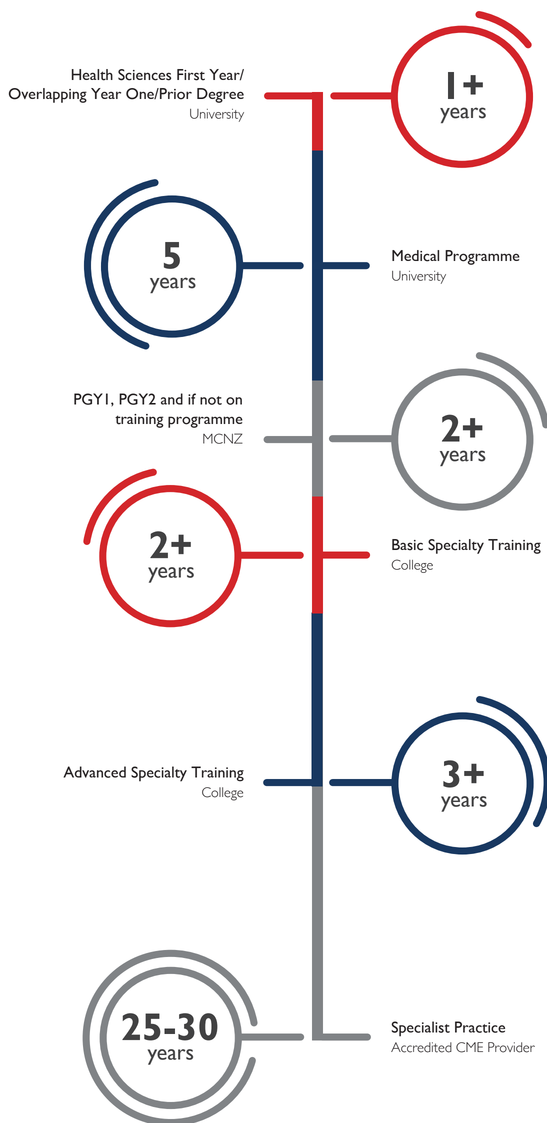

Figure 1 Outline of stages of medical training in New Zealand.

Physicians, Royal Australasian College of Surgeons etc.). Colleges may undertake selection for training, design curricula, and assessments, and set standards for supervision in the clinical setting where most of the learning takes place. To be able to practice from postgraduate year one (PGY1) onwards requires an Annual Practicing Certificate from MCNZ. The stages of training are shown in Figure 1.

At present, all the NZ resident medical graduates in NZ are matched to a PGY1 job somewhere in NZ. Provided they perform satisfactorily in core attachments in PGY1 and PGY2 and complete training requirements, they earn general registration with the MCNZ. During this time, most refine their career interests and start applying for specialty training programmes. Those who are successful are allocated the types of jobs that allow progression through training. Many specialty training positions are allocated by DHBs by agreement with colleges.

With the advent of Schedule 10 rosters (not working more than ten days in a row) there will be more house officer and registrar positions, but these may not necessarily be dedicated training positions. It is uncertain to what extent these new rosters will affect the number of training positions or training duration.

Thus, medical graduates might be considered to be operating in two markets, one to get a job and one to get on a training scheme. Consider what will make you an asset, both to the employer and the specialty training committee. Medical knowledge is a critical component of being a good doctor, but just as important are your skills and behaviour in the clinical setting. Evidence of this may be gained from supervisor reports, references, or performance in specific skills assessments. Your ability to self-care is very important, as are your capabilities in other realms such as leadership, advocacy, or research. In some ways, medical school is like a long job interview, both for you to scope out your preferences and build your capabilities, but also for your supervisors to see how you perform in their particular area. NZ is a small place and you will find the same familiar faces at various points in your training.

Match between student choices and workforce needs

It is worth being informed about areas of workforce need. Based on recent data from MSOD and MCNZ workforce surveys, there are imbalances between graduates' most preferred career at the end of medical school and the current spread of medical jobs in the medical

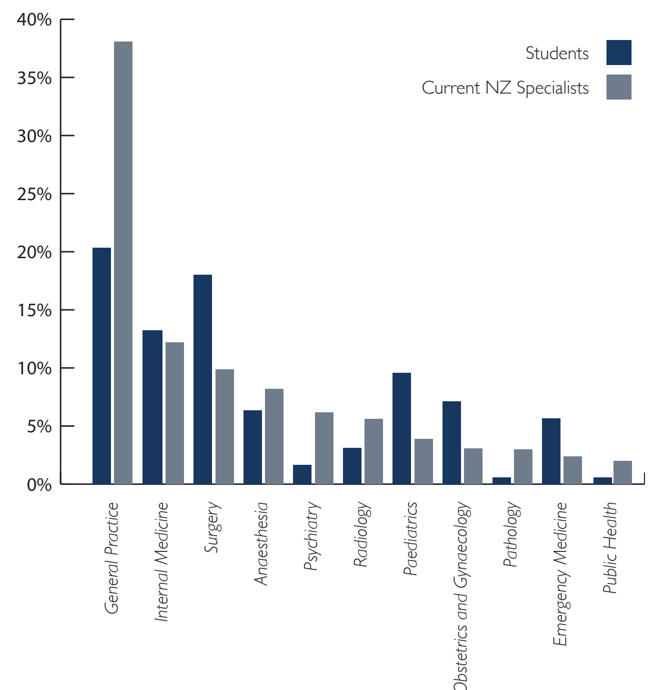

Figure 2 Match between specialties in current NZ medical workforce (black bars) and NZ student preferred careers at graduation (grey bars).

workforce (see Figure 2).[4,5] There is 'over-interest' in surgery, paediatrics and emergency medicine, and 'under-interest' in general practice, psychiatry, and pathology.

However, as well as being the most preferred choice, general practice is also the most common second choice.[4] Commonly, aspiring physicians or surgeons move later to general practice, with some of the reasons for change being:

(1) Original specialty was not as hoped (many reasons);
(2) Failure to get on a training scheme or to progress past barrier exams;
(3) Change in circumstances and/or lifestyle reasons. Given that the years of training may overlap with settling into family roles, some seek a more predictable career structure.

The nature of work in any specialty changes along with population needs. For example, NZ has an aging population and will need more doctors managing patients with long-term conditions and frailty. Moreover, the general practice workforce is older, with about a third of general practitioners expecting to retire in the next five years.[6] Both of these suggest increasing opportunities for employment in general practice. On the other hand, both paediatric and emergency workforces are relatively young, suggesting competition for these jobs may be more intense than these data suggest. As this is a complex and changing environment, you are encouraged to seek out information through talking to those in the specialty, attending career fairs, or from information on College or HWNZ websites. The RMO tab on the website https://www.kiwihealthjobs.com is useful. This will keep you up-to-date with the medical careers and locations in NZ where there are training positions and jobs for specialists, as well as selection and training requirements, which change frequently.

Work-life balance

Quite rightly, current generations of doctors are less prepared to endure long hours for little tangible reward.[7] Nonetheless, it is an inescapable reality that health care is a 24/7 activity. Furthermore, to become a specialist requires considerable time in the workplace, learning on the job through delivering patient care. As a specialist, you'll have more control over your working hours and the way you work, but must do enough to remain competent and to take your share of out-of-hours work.

Finally, medical professional and personal lives overlap considerably. Telecommunications and the internet may allow study and work to be done away from traditional environments and outside usual work hours. Conversely, it's easier to keep in touch with family and friends during work hours. The art is in balancing the need to be reliably present at work, with essential external activities such as family commitments. Choices and compromises need to be made every step of the way – there are only 24 hours each day and one can only be 'superhuman' for so long. Strategies include scheduling time for rest and outside interests. You must attend to your own physical and mental fitness for such a demanding job. There may be a case for managing your own and others' expectations of you, and for reducing unnecessary external burdens such as travel time.

Largely driven by the increasing number of women graduates, many of whom seek flexible work options at some stage, all colleges allow part-time or interrupted training. Unfortunately, this is not yet mirrored in the approach of DHBs. Those wanting to work less than full time may be seen as exceptions to be accommodated, rather than the reality of a diverse workforce. An additional problem is that some part-time jobs may not be suitable for training. All of this prolongs the time to complete training. Yet there are now many more role models who have managed flexible training and who can help you with navigation through the system and support for your path. Talk with those who have worked less than full time and don't be afraid to put forward your case for more flexible training or work. Furthermore, use your advocacy skills to help shape health and training systems to better meet the needs of all doctors.

Closing remarks

Enjoy your medical-student journey using the options presented to you, as well as seeking out others. Try studying somewhere different or outside your comfort zone. Build up your curriculum vitae in a range of areas.

Be informed by talking to doctors at various levels, and keep up with information about workforce, jobs, and training.

Be realistic in your self-assessment of the fit of your interests and aptitudes with particular specialties or settings. Be receptive to trusted mentors who suggest specific career paths. They may see your abilities in a way you can't.

Don't feel rushed into making a career decision, nor worry about changing your mind. In times of indecision, don't be forced into a decision. An important attribute in health care is to be able to cope with uncertainty and 'go with the flow' for a while. You may take a less preferred job, using it as an opportunity to refocus or as a stepping stone to another job.

Usually the path clarifies with time. All the very best on this exciting journey.

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