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International medical migration: How can New Zealand compete as specialist shortages intensify?

Immigration data published by the Organisation for Economic Cooperation and Development (OECD) show one in six New Zealand-trained doctors are working overseas.¹ This includes 723 specialists working in Australia in 2015 who gained their initial vocational qualification in New Zealand. This is a net loss of almost 100 New Zealand specialists to Australia since 2012, excluding those who had gained their vocational registration before working in New Zealand.²³ Earlier OECD research indicated New Zealand had the second-highest expatriation rate of doctors in OECD countries (behind Luxemburg), based on country of birth.⁴

OECD data also show New Zealand has had for many years one of the lowest numbers of medical graduates per head of population (27th lowest of 34 countries in 2014).⁵

Consequently, to attempt to fill the medical workforce gaps, New Zealand has the second-highest proportion of international medical graduates (IMGs)ⁱ among OECD countries (behind Israel), including 43% of the specialist workforce.⁶

Monitoring the trends in the movements, supply and retention of IMGs is therefore especially important for New Zealand to develop and sustain a medical workforce capacity that will meet our growing health needs. As an OECD report put it, New Zealand and other countries with a high proportion of IMGs "may be at the mercy of sudden policy changes in other OECD countries which remain beyond their control".

Two key issues have emerged:

- Increasing competition to attract IMGs
- Continuing poor retention rates of IMGs in New Zealand

New Zealand's specialist IMG profile

While overall IMGs make up 43% of New Zealand's specialist workforce, dependency on IMGs is much greater in the provinces. A survey of Association of Salaried Medical Specialist (ASMS) members in August 2016 indicated IMGs in larger urban district health boards (DHBs) comprised approximately 37% of the senior medical officer (SMO) workforce on average, compared with approximately 66% in the smaller provincial DHBs (Figure 1).

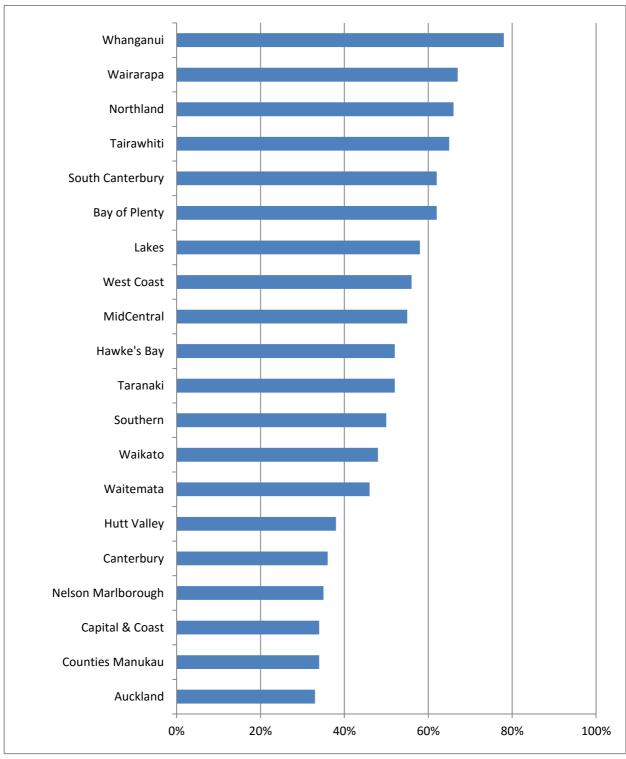
ⁱ An International Medical Graduate (IMG) is a doctor who obtained their primary medical qualification in a country other than New Zealand; previously known as an overseas trained doctor.







The Medical Council's Medical Workforce Survey of 2014 found a similar pattern for the total medical workforce, with IMGs making up 39% of the medical workforce in urban centres and 56% in rural areas.



Source: ASMS 2016

Figure 1: Percentage of SMOs who are International Medical Graduates (IMGs) by DHB

Surgery: plastic Public health medicine Surgery: orthopaedic Dermatology Surgery: urology Ophthalmology Surgery: otolaryngology Intensive care medicine Diagnostic and interventional radiology Occupational medicine Surgery: general **Paediatrics** Primary care Internal medicine General practice Radiation oncology Anaesthesia Emergency medicine Pathology

The distribution of IMGs across specialties is also widely varied (Figure 2).

Source: MCNZ 2016

Figure 2: Proportion of IMGs by vocational scope (areas with more than 50 doctors)

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International demographic trends, coinciding with increasing health needs, and rapidly growing health service facilities in countries such as India, which is by far the greatest exporter of doctors, all point to increasing competition to attract and retain IMGs.

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Percentage of IMGs

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What draws IMGs to New Zealand?

Obstetrics & gynaecology

Psychiatry

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There are no published studies specifically examining the reasons why IMGs with vocational registration come here. However, the pattern of migration to New Zealand and international literature on medical migration in general provide some insight into what influences doctors' decisions.

MCNZ data (Table 1) show 78% of IMG doctors with vocational registration in New Zealand come from just six countries and comprise more than a third of the total New Zealand vocationally registered workforce. The remaining IMGs come from a wide range of countries from across the globe.

Table 1: New Zealand's sources of IMGs with vocational registration: The top six countries, as at June 2015^*

Countries	Number	% of vocationally registered IMGs	% of NZ vocationally registered workforce
UK	1793	37%	17%
South Africa	764	16%	7%
India	390	8%	4%
Australia	355	7%	3%
USA	276	6%	3%
Sri Lanka	171	4%	2%
Total	3749	78%	36%

Source: Compiled from data published in MCNZ's Annual Report 2015

International medical migration trends are complex, influenced by a range of factors, including growing health needs, retention rates, economic and financial policies and domestic training policies, all of which are fluid. The international literature also points to a range of 'push and pull' factors that tend to determine doctors' decisions to migrate, which are in part determined by their country of origin. ^{7 8}

With regard to migration from poorer to wealthier countries, the OECD says "the first motivation for migration is often linked to more and better employment opportunities abroad (encompassing salaries, working conditions, career advancement, etc.)". Migration is also often a symptom of the difficulties faced by the health system and the society of the country of origin, such as South Africa (New Zealand's second-largest source of IMGs) and Iraq (the source of 100 vocationally registered IMGs). ⁹ 10 11 12 13

In India, the world's largest exporter of doctors by a large margin and the third-largest source of New Zealand's IMGs, doctors with the highest academic achievement have the greatest likelihood of migrating. Researchers suggest the desire for better training and increased access to better technology and equipment are important reasons for migration. However, this is beginning to change with the growth of India's middle-class population, which is forecast by some analysts to more than double in the next 10 years. However, a burgeoning private health sector is also driving the rapid growth of a \$3 billion health 'tourism' industry, estimated to grow to an \$8 billion industry by 2020. While any future reduction in the supply of IMGs from India may not have a major impact on New Zealand directly, it may have a greater indirect effect if the supply to other countries is reduced, such as to the UK, the USA and Australia where, in each case, India is by far the most important source of IMGs. However, and the important source of IMGs.

OECD data show the inflow of doctors from India to OECD countries (especially the UK and the USA) dropped by 31% between 2010 and 2014. The extent to which this is due to increases in domestic medical graduates or an increasing tendency for Indian doctors to remain in India requires further study.

^{*}Note: Includes doctors without an Annual Practising Certificate

There is relatively little research on the reasons why doctors migrate between wealthier countries. However, recent studies concerning New Zealand's main source of IMGs – the UK – indicate doctors' motivations for moving here are influenced largely by 'push' factors related to unpopular health policies at home that are having a negative effect on the morale of the medical workforce, and 'pull' factors related to a perceived better quality of life and working conditions in New Zealand. ²² ²³

New Zealand's perceived lifestyle and working conditions appear to play a big part in attracting around 500 doctors a year from the UK and around 340 a year from North America, despite many of them having to accept substantially reduced incomes when they get here. ²⁴ The problem is that many of them do not stay for long, as discussed below. ²⁵

Why do IMGs leave New Zealand?

While New Zealand's specialist workforce is becoming increasingly dependent on IMGs, growing from 35% in 2000 to 43% in 2014 (and still growing), IMGs have poor retention rates. Currently about a quarter of IMGs are lost within three years of gaining vocational registration, rising to almost a third by the fifth year post-registration.

In a Medical Council-commissioned survey of a small number of IMGs (51) requesting a Certificate of Good Standing and who were leaving New Zealand, 41% of respondents had only intended to stay in New Zealand for a short period at the time of arrival; 24% left New Zealand for family reasons, 22% left to take up other professional opportunities or higher training, and 16% left for higher remuneration.²⁶

In a further MCNZ survey of *all* doctors requesting a Certificate of Good Standing and who had indicated that they were leaving New Zealand, most respondents (182 doctors) identified multiply reasons for leaving, the most common being: ²⁷

- undertaking further training
- increased remuneration
- family reasons
- improved working conditions
- locum opportunities.

Fifty-two percent of respondents were IMGs and 36% of respondents had a vocational registration, although no information is available on how many of the IMGs had a vocational registration.

Doctors on a vocational scope tended to cite increased remuneration and further training as their reasons for leaving New Zealand (although no figures have been released to show the extent of this).

Similar reasons were given for intentions to leave New Zealand by respondents to a national survey of ASMS members (IMGs and New Zealand-trained) on their career intentions, with higher remuneration being the most cited reason, followed by career opportunities and family reasons. (Few, if any, of the respondents in this survey would have been short-term contractees.)²⁸

A survey of former New Zealand trainee specialists in anaesthesia, most if not all of whom would have been specialists at the time of the survey (2009), points to higher income as a key factor for those who moved overseas. The survey, which followed up a 2002 survey of registrars' career intentions, showed that while 80% of the 2002 cohort had intended to eventually work as a specialist in New Zealand, only 64.5% were working in New Zealand seven years later.²⁹

Significantly, the 2009 survey found that 75% of respondents currently working overseas agreed or strongly agreed that salary was an important influence on choosing their country of residence, whereas respondents that had remained in New Zealand indicated lifestyle and family ties as the main reasons for staying.

While the survey does not differentiate responses of IMGs from those who trained in a New Zealand medical school, it does point out that of those that stayed in New Zealand only 15.5% were IMGs compared with 48% of those currently working overseas.

In November 2009, a survey of medical training directors overseeing a total of 108 registrars in selected specialties (psychiatry, anaesthesia, general medicine, and intensive care), indicated about half of the registrars intended to go overseas or had already left. The most common reasons for these departures, according to the directors, were improved salaries and conditions, lack of positions available in New Zealand, and to gain further experience or training. ³⁰

Temporary specialist staff

Unpublished summaries of DHB exit interviews for SMOs and RMOs, obtained under the Official Information Act, indicate a relatively high number of SMOs whose reason for leaving was completion of a fixed-term contract. Seven DHBs (Waitemata, Counties-Manukau, Waikato, Lakes, Bay of Plenty, Whanganui and Nelson-Marlborough) collectively saw 226 SMOs leave for this reason over a three-year period. Waikato accounted for 100 of them, and it was the most common reason given in all but Lakes DHB. It is assumed most of these are IMGs. The employment of many IMGs on short-term contracts, particularly from the UK and the US, has been noted by both Health Workforce New Zealand and the Medical Council. 31 32

The temporary nature of many IMGs' employment in New Zealand is also reflected in IMG retention rates that include not only IMGs with full registration status but also those with provisional registration, which often requires IMGs to be practising under supervision in New Zealand for between 6 and 18 months. MCNZ data show that the retention rate for IMGs 11-15 years post-initial medical qualification is less than 40% within three years of New Zealand registration; for IMGs 16-20 years post-initial medical qualification, the retention rate is less than 50% within three years of registration. Most of these would be specialists.

Further, these rates do not include doctors registered for specific short-term purposes ('special purpose' registration). In 2015 this included 102 locum specialists.³³

As would be expected, MCNZ registration data show almost all doctors issued with provisional vocational registration or special purpose registration are IMGs. The published data do not allow an accurate assessment of how many doctors with provisional vocational registration are leaving New Zealand after short-term engagements. However, as at July 2016, the medical register listed 268 doctors with provisional vocational registration (which would normally be expected to be held for 12 to 18 months) but only half had a current Annual Practising Certificate, suggesting a high turnover.

Discussion

International competition for doctors is increasing. Despite efforts in many OECD countries to become medically self-sufficient by training more doctors (many of whom subsequently have difficulty finding positons because of resource constraints), significant shortages are forecast. The United States (US) alone is estimated to be facing a shortage of up to 90,000 physicians by 2025. 34 35 OECD data show the number of overseas trained doctors working in the US increased by 14.5% in the

four years 2010-2014. Meanwhile, in the UK, New Zealand's main source of IMGs, the National Audit Office reports that as at March 2014 there were 2330 NHS consultants fewer than there were established positions, and the Royal College of Physicians reports 43% of consultant vacancies were unfilled in 2015, due mainly to the lack of suitable candidates.^{36 37}

The forecasts are due to multiple factors. As well as meeting the increasing health needs of growing and aging populations, and rising public expectations as technological advances introduce new treatments, diseases of affluence are causing further challenges. Medical workforces are aging. As a recent European report notes, the aging health workforce is leading to an 'upcoming massive replacement need, even with gradually growing workforce sizes'. ³⁸ The increasing proportion of women in the specialist workforces of Western countries, and the trend towards more work-life balance in both genders, add further to the need for greater numbers of specialists internationally. ³⁹

Additional competition for IMGs may also develop through a dwindling international source of supply of specialists, as many countries, including non-OECD countries, concentrate more on retaining their doctors to help meet growing workforce needs.⁴⁰ 41 42

New Zealand's high dependency on IMGs, coupled with its high rates of expatriation of doctors, makes us especially vulnerable to increased international competition for IMGs. As an OECD report noted, "New Zealand and, to a lesser extent Canada, Ireland or the United Kingdom, which receive and send lots of doctors and nurses abroad, may be at the mercy of sudden policy changes in other OECD countries which remain beyond their control."⁴³

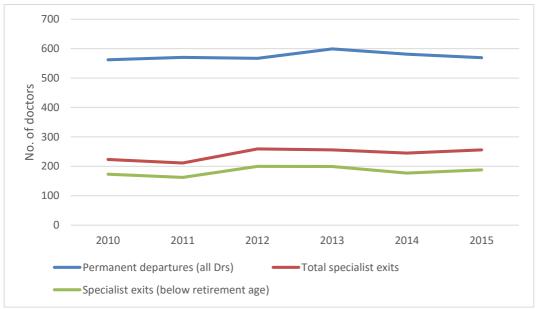
As outlined above, New Zealand's source of IMGs is mostly from just half-a-dozen countries, particularly the UK, where the NHS has experienced unprecedented financial constraint, with numerous reports of a medical workforce under stress. While such circumstances may encourage doctors to move to places like New Zealand, it is notable that many do not stay here for long. A policy change that saw greater investment in the NHS, could not only lead to stronger retention measures in the UK but also attract back even more doctors than is occurring now.

That scenario is reinforced in a recent study on UK-New Zealand migration which indicates a desire to leave the NHS has been a primary motivator for doctors deciding to move to New Zealand. Correspondingly, a change of policies which leads to improved working conditions in the NHS are key reasons given by British doctors to consider returning to the UK.⁴⁴

Britain's uncertain future relationship with the European Union (EU) is also likely to impact on medical workforce issues, given that over a quarter of doctors entering the UK medical register each year are from other EU countries. ⁴⁵ The British Medical Association (BMA) warns of impending 'disaster' as a recent national survey it undertook of doctors who qualified in the EU shows more than 40% of them were thinking of leaving the UK because they feel less welcome; a further 23% were unsure. ⁴⁶ The uncertainties brought about by the Brexit vote relate not only to the future employment arrangements for doctors but also the implications for future collaborative opportunities with other doctors in the EU and the employment and education opportunities for doctors' families. The effects could potentially exacerbate medical workforce shortages in the UK.

New Zealand's high turn-over of IMGs is reflected in Immigration New Zealand figures showing New Zealand lost, on average, 575 doctors each year from 2010 to 2015 (Figure 3). MCNZ retention data suggest most of these are likely to be IMGs.

With regard to specialists, Ministry of Health data show total specialist exits from the workforce average approximately 240 a year from 2010 to 2015. If those aged 65 and over are excluded, the average loss is around 180 specialists a year. While some of those may be taking a temporary career break, it is likely that most will be specialists leaving the country, again most of them IMGs.



Source: Immigration New Zealand; Ministry of Health

Figure 3: Permanent & long-term departures from New Zealand (all doctors) and specialist workforce exits, 2010-2015

Traditionally Australia has been a favourite destination for specialists who decide to leave New Zealand. As noted earlier recent data indicate this remains the case, with Australia seeing a net gain of 100 specialists from New Zealand over the three years to 2015. That figure excludes those IMG specialists who were vocationally registered before they worked in New Zealand. Assuming there are some specialists moving in the opposite direction, there is likely to be at flow of least 40 specialists from New Zealand to Australia each year.

Health indicators and specialist workforce trends in Australia suggest the outflow of specialists from New Zealand is likely to continue, despite Australia's policy to aim towards being medically self-sufficient.^{47 48}

While it is recognised that health service employers may not be able to influence some factors concerning staff turnover (eg, family reasons), there are many factors that they *can* influence. The medical workforce literature highlights the need for health service organisations to consider the reputation of their organisation as an employer and as a place to work, in order to create a climate that will attract and retain staff. ^{49 50}

A major report on health professional mobility in Europe identifies three key factors that influence whether staff will stay or go:⁵¹

- employment quality
- work quality
- organisational quality.

Employment quality relates not just to pay but also to terms and conditions, such as opportunities for flexible working arrangements and conditions that enable a reasonable work-life balance.

Social benefits are also an important part of employment quality. Contractual relationships that allow for pension schemes, flexible retirement policies, childcare provisions, and so on have shown to be factors influencing job quality.

Work quality includes a number of variables around inappropriate or unsafe work. For example, high levels of administrative burden have been shown to have a negative effect on retention. In addition, many studies report negative effects of work-related stress in health care, particularly from high workload. Studies show that the consequences of continued high levels of stress for health professionals, including doctors, include not only reduced efficiency but higher error rates and higher staff turnover.

In relation to organisational quality, the literature on retention has a particular emphasis on the relationship between leadership and staff satisfaction. Dissatisfaction with management styles has been shown to be a major driver in job dissatisfaction. On the one hand, doctors have reported dissatisfaction with their level of influence over their work, the perception of not being heard, disconnection between management and clinical work, lack of shared decision-making and lack of recognition. On the other hand, participation in decision-making processes has been found to enhance job satisfaction.

Many of these issues are well recognised in New Zealand's DHBs. The ASMS has reported on them regularly, most notably in the analyses and reports of recent national surveys of SMOs on 'presenteeism' and burnout and fatigue. ^{52 53} New Zealand's poor retention rates, particularly of IMGs, are likely to continue until they are addressed.

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