Taking the temperature of the public hospital specialist workforce

AUGUST 2014
Taking the temperature of the public hospital specialist workforce

Association of Salaried Medical Specialists
August 2014
CONTENTS

Introduction 5
1  Summary of findings 8
2  Specialist supply: the pressure points 12
3  IMG retention 17
4  Australia’s specialist workforce trends 20
5  Growing importance of other countries for departing specialists 22
6  New Zealand’s need for a well-balanced workforce 26
7  Changing demographics 27
8  Current trends indicate growing shortages ahead 29
9  Conclusion 34
   References 37
Introduction

New Zealand’s public health system is under pressure. Many people are struggling to get onto hospital waiting lists for surgery or to see a specialist, senior doctors are working longer and harder to cover staff shortages, and hospitals are spreading themselves more thinly than ever in order to do more with less money.

The Association of Salaried Medical Specialists (ASMS) is concerned about the pressure on the medical workforce and what this will mean for the provision of future health care.

After analysing the best available evidence, ASMS has prepared this update on the state of New Zealand’s public hospital specialist workforce. It follows on from three major reports and examines:

The pressure points on the supply of specialists
Between medical school graduation and vocational registration, many New Zealand doctors leave to practise overseas, which has contributed to a heavy dependence on international medical graduates.

Retention of international medical graduates (IMGs)
IMG retention rates are even worse than those of New Zealand graduates and our growing dependence on IMGs is leading to an increasingly unstable medical workforce.

Australia’s specialist workforce trends
To date, Australia has been the main destination for New Zealand’s departing specialists, but conditions in Australia are changing, which may reduce employment opportunities in some specialties and some areas.

The growing importance of other countries for departing specialists
Increasing international demand for specialists, and New Zealand’s high and increasing dependence on IMGs (many of whom tend to return to their country of origin), is likely to lead to medical emigration to a broader range of countries in future.

New Zealand’s need for a well-balanced workforce
A small country like ours needs a significant emphasis on the generalist nature of specialists, but New Zealand’s increasing dependence on recruiting specialists from larger countries overseas, which logically have a greater emphasis on sub-
specialisation, is contributing to an imbalance between generalism and sub-
specialism.

The changing demographics of the medical workforce in this country
A significant proportion of the specialist workforce is approaching retirement
age, while a growing desire for a better work-life balance generally and
particularly among the younger generations of doctors, is adding to current
workforce pressures.

Current trends and future challenges
Five years after an ASMS submission to the Senior Medical Officers’
Commission described the specialist workforce as a ‘leaking bucket’, Medical
Council and DHB data show the flow into the bucket has increased but the holes
have got bigger.

The first major specialist workforce report produced by the ASMS in January
2009 found clear evidence of chronic shortages across most specialties and an
increasingly serious recruitment and retention issue, with many specialists
leaving for better pay and conditions overseas. That paper, prepared for the
Senior Medical Officers Commission, described the specialist workforce as
a ‘leaking bucket’. (Repairing the Leaking Bucket: A paper to the Commission on
Competitive and Sustainable Terms and Conditions of Employment for Senior Medical
and Dental Officers employed by DHBs.)

In October 2010, Health Minister Tony Ryall acknowledged publicly: “We have a
workforce crisis in New Zealand because we need to retain more of our hospital
specialists”.

A document published jointly by ASMS and the 20 district health boards (DHBs)
the next month, titled Securing a sustainable senior medical and dental officer
workforce in New Zealand: The business case, reaffirmed there was a specialist
workforce crisis. It said this was causing serious risks for the public health
system (including standards of patient care and financial waste), and set out
actions to address the crisis.

Those actions, which included a greater investment in developing the specialist
workforce, were never implemented.

In February 2013, the ASMS produced a further comprehensive analysis of the
DHB specialist workforce, The Public Hospital Specialist Workforce: Entrenched
Shortages or Workforce Investment? It found specialist shortages had become so
entrenched they were now the ‘norm’ for many public hospital departments.

---
a Senior Medical Officers are mostly specialists. They comprise medical and dental officers as well as
medical and dental specialists.
Specifically:

- DHBs were not recruiting enough specialists to enable safe and sustainable services, as ASMS had previously agreed with the DHBs. To fill the service gaps, DHBs were calling on short-term (and significantly more expensive) locums and were depending more and more on recruiting overseas-trained specialists - international medical graduates (IMGs) - who had a higher turnover rate than doctors trained in this country.

- Retention of new specialists and potential future specialists was getting worse, especially among IMG doctors.

- On current retirement trends, in the next five years an estimated 19% of the specialist workforce could be lost due to a drop-off of doctors from the age of 55.

This status report on the medical workforce pays particular attention to the three issues outlined above - and examines how a changing international market for medical specialists poses new risks for New Zealand’s health services.
1 Summary of findings

The current entrenched shortage of specialists is partly due to past decisions on the supply of doctors. While medical school intakes have gradually increased from 2004 (when intakes increased by 40), these increases will not flow on to the specialist workforce till around 2020, and there will be losses along the way.

On average more than 10% of medical school graduates are not registering after their final class year. Of those that do register, about 37% are no longer practising in New Zealand a decade later, when they would usually be in training to become a specialist or GP.

Of the New Zealand graduates who gain vocational registration (ie, become a specialist or GP), 10%-12% are lost to New Zealand long-term – and the situation is worsening. Of those who first registered as a specialist in 2011, 18.9% were no longer practising in New Zealand one year later.

New Zealand depends heavily on international medical graduates (IMGs) to attempt to address senior doctor shortages. Almost 42% of registrars are IMGs – yet that is still not enough to provide the number of doctors New Zealand needs. In the five years to 2012, the number of registrars increased by 74 a year on average, which is well short of the numbers needed to replenish and develop the general practitioner and public hospital specialist workforces.

The growth of the specialist (and GP) workforce depends on further recruitment of IMGs who have already qualified as specialists, the proportion of which is steadily increasing. Currently, like the registrar workforce, almost 42% of specialists are IMGs (the highest rate in the OECD).

Without IMGs our health system would not function.

However, New Zealand’s heavy reliance on IMGs has significant disadvantages:

- The health system is vulnerable to sudden changes in international migration flows, which could result from policy changes in other countries beyond the control of New Zealand authorities.
- IMG specialists have a high turnover rate compared with specialists who graduate from New Zealand medical schools.
- The high turnover of IMGs reduces the capacity to bring cohesiveness to medical services, which can have serious implications for training and efforts to develop clinical leadership, clinical networks and new innovative models of care.
• IMGs require supervision and support for a period, thus increasing specialists’ supervisory workloads.

• Recruitment is expensive, making a ‘revolving door’ of IMG specialists financially wasteful.

Health Workforce New Zealand’s Executive Chair, Professor Des Gorman, has stated he wants to reduce IMGs to 15% of the workforce.1 The most effective means of achieving this would be to improve retention of New Zealand’s home-grown workforce, but Medical Council data indicates a trend in the opposite direction, with overseas-trained senior doctors rising from 35% of the workforce in 2000 (already high by international standards) to 42% in 2012.

The number of IMGs gaining their general registration in New Zealand each year increased by more than 120% between 2000 and 2011, but the retention rate has been deteriorating. Of those who first registered in 2011, nearly 40% were no longer practising in New Zealand one year later, more than double the percentage loss of five years earlier.

Employment of IMGs with vocational registration shows similar trends. While the numbers registered in New Zealand have more than doubled since 2000, retention rates are declining. In the year 2000, 16% of vocational registrants were lost three years after registration; by 2009 that had increased to 28%.

DHBs appear to be relying heavily on locums and short-term appointments to plug workforce gaps. Workforce data provided by Auckland DHB, for example, shows that of the total number of specialists and medical officers employed by the Auckland DHB as at June 2014 (excluding staff on parental leave and leave without pay), almost one in six were on non-permanent contracts. Of the new specialists and medical officers appointed in the previous 12 months, 87 (72%) were in non-permanent positions. Data from two other DHBs also indicates a high proportion of temporary appointments.

While a portion of non-permanent staff will be employed to cover specialists on leave, these figures imply that non-permanent positions are being used as a stop-gap response to workforce shortages. In the DHB’s general surgery services, for example, 38% of the specialist/medical officer workforce are in temporary positions. In the Emergency Department, 42% of specialists (child ED) and 31% (adult ED) are on short-term contracts. Given DHBs have a poor record of accuracy for some of their workforce data, this data must be treated with caution. On the face of it the figures suggest DHBs are simply unable to attract sufficient staff other than on a temporary basis.

To date, Australia has been the main destination for New Zealand specialists heading overseas. While it will continue to draw on our workforce for the foreseeable future, the number of senior doctors disappearing to Australia, rather than other countries, may change for two reasons. First, Australia’s moves
toward self-sufficiency in its specialist workforce may see fewer New Zealand-based specialists heading that way over time (although the indicators are mixed and are likely to vary between specialties). Secondly, many of our workforce losses involve IMGs, who often return to their home countries. This suggests that conditions in those countries are becoming more important with regard to New Zealand’s recruitment and retention.

Significant increases in specialist remuneration have gone a long way to filling vacancies in Australia, though not necessarily addressing shortages. Workforce shortages in provincial areas remain a major challenge. So while employment opportunities may be limited for most specialties in metropolitan areas, there will continue to be opportunities in some rural areas (which include cities and large towns with hospitals comparable in size to many New Zealand hospitals). There may also be particular opportunities in a range of specialties that Health Workforce Australia predicts will be in short supply in 2025, compared with their current position.

International workforce indicators point to an increasingly competitive market for medical specialists which, an OECD report warned, “would make the New Zealand trained health professionals harder to retain, and the potential pool of foreign recruits more difficult to attract”.

In the United Kingdom, for example (the main source of our IMGs), there are reports of continuing shortages in some specialties and some regions. Reports from the United States, another important source of IMGs, also warn of significant specialist shortages in the coming decade.

Without adequate measures to retain specialists, and our New Zealand graduates once they have finished their specialist training, New Zealand will remain dependent on overseas-trained doctors and will not be able to achieve the correct proportion of generalists and sub-specialists, get the right mix of senior doctors to doctors-in-training. In all hospitals, more generalist medical practitioners are needed to serve an aging community among whom chronic multi-system diseases are on the rise, and to manage undifferentiated patients with multiple comorbidities.

Many New Zealand specialists are nearing retirement. Medical Council workforce survey data suggest about 19% of the specialist workforce will be lost within the next five years due to the drop-off of specialists from the age of 55.

In developing a joint *Business Case* for a sustainable specialist workforce with the DHBs in 2010, the ASMS and DHBs agreed the required growth rate would be based on New Zealand’s total (public and private) specialist workforce per population matching that of Australia’s by 2021, and that the DHB specialist full-time equivalent (FTE) workforce would grow at a parallel rate.

To reach that benchmark by 2021 requires a net growth rate of approximately
260 FTE Senior Medical Officers per year (approximately 230 FTE specialists and 30 FTE medical officers). In the three years to March 2014, the average SMO growth rate was 164 FTEs per year (180 headcount).

Unless the current growth rate improves, New Zealand’s DHB workforce target for 2021 will fall short by about 670 SMO FTEs.

The consequences of a continuing under-supply of specialists and medical officers are outlined in the Business Case and include:

- increased risks to the clinical and financial viability of some services
- increased wasteful expenditure
- reduced cost-effectiveness of hospital services overall
- decreasing ability to improve safety and quality of services
- reduced capacity to develop more innovative and efficient services
- continuing heavy dependence of overseas recruitment, escalating specialist turnover rates
- reduced capacity to train new specialists, with far-reaching negative flow-on effect for the whole medical workforce.
### 2 Specialist supply: the pressure points

The DHB specialist workforce is drawn mostly from the pool of registrars as they qualify for vocational registration and recruitment of overseas-trained specialists.

The current entrenched shortage of specialists is partly due to past decisions on the supply of doctors. While medical school intakes have gradually increased from 2004 (when intakes increased by 40), these increases will not flow on to the specialist workforce till about 2020, and there will be losses along the way.

#### TABLE 1: BECOMING A SPECIALIST

<table>
<thead>
<tr>
<th>Years 1–5</th>
<th>Undergraduate Education</th>
<th>Year 6 Trainee Intern</th>
<th>Year 7 PGY1</th>
<th>House Officer</th>
<th>intern year with registration in general scope of practice on completion</th>
<th>Year 8 PGY2</th>
<th>Senior House Officer</th>
<th>often extends to several years</th>
<th>Vocational Training 3–8 years + Registrar</th>
<th>a minimum of 3 years general practice and up to 8 years hospital specialty training, then advanced sub-specialty experience</th>
<th>Vocationally Trained Doctor</th>
<th>Life long Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Medical Council data for the five years to 2012 show that on average more than 10% of medical school graduates are not registering after their final class year. Of those that do, about 37% on average are no longer practising in New Zealand 10 years later, when they would usually be training for vocational registration or beginning a career as a specialist (Table 1). This trend does not appear to be

---

b Information on what happens to these graduates is not collected. The Medical Council says the figures include fee-paying students and the initial drop in retention may possibly be caused by these graduates returning to their sponsoring countries.
improving. So while medical school drop-out rates are reported to be ‘low’, the initial additional intake of 40 students may produce a supply of a little more than 20 doctors with vocational registration, some of whom will go on to become GPs.

Of the New Zealand graduates who do gain vocational registration, about 10%-12% are lost to New Zealand long-term – and this is getting worse. Up until now the greatest loss (11.5% on average) occurs one year post-vocational registration, and from then on it levels off. The long-term losses therefore reflect the short-term losses. In the early 2000s, the average annual loss one year after registration was 6.3% of the initial number registered. In the four years to 2011, that figure climbed to 15.1%, as shown in Figure 1. Of those who first registered as a specialist in 2011, 18.9% were no longer practising in New Zealand one year later.

**FIGURE 1: PERCENTAGE OF NEW ZEALAND GRADUATES LOST ONE YEAR AFTER GAINING VOCATIONAL REGISTRATION, BY YEAR OF REGISTRATION**

It may be that the immediate losses of New Zealand graduates are currently less severe than the latest figures published by the Medical Council (2011), in view of recent anecdotal reports of fewer doctors leaving for Australia, reflecting general migration trends.

Nevertheless, the poor attrition rates of New Zealand doctors along the route from medical school to vocational registration have led to a heavy dependence on international medical graduates (IMGs) to attempt to address the deficit.
Almost 42% of registrars are IMGs but even this level of dependency is not sufficient to make up the workforce shortfall. Medical Council workforce survey data shows that for the five years to 2012 the number of registrars increased by 74 a year on average, which is well short of the needed growth rate. As discussed later, the public sector alone requires a net annual growth rate of approximately 250 full-time-equivalent specialists (ie, after resignations and retirements are taken into account). The registrar workforce also has to replenish the GP workforce as well as the private sector specialist workforce.

Consequently, the annual replenishment and growth of the specialist (and GP) workforce depends on further recruitment of IMGs who have already qualified as specialists, the proportion of which is steadily increasing. Currently, like the registrar workforce, almost 42% of specialists are IMGs (the highest rate in the OECD).

Registration data published in the Medical Council’s Annual Reports indicate this proportion is set to grow further, with IMGs making up 49% of new specialist registrations, on average, over the last 10 years, as shown in Figure 2. In the most recent year, 56% of newly registered specialists were IMGs.

**Figure 2: New Vocational Registrations (Newly Registered Specialists) - Percentage of IMGs and New Zealand Graduates, 2003/04 to 2012/13**

* Excludes new vocational registrations for GPs and urgent care practitioners in the primary care sector.

---

Vocational scopes granted to doctors for the year to June 2013, excluding general practitioners and doctors in accident and medical practices (now an 'urgent care' scope of practice).
IMG specialists are an invaluable asset to New Zealand; clearly, our health system would not function without them. However, there are significant downsides in relying on them so much.

First, our health system is put in a vulnerable position in view of the increasing international competition for medical specialists. A sudden change in international migration flows, resulting (for example) from policy changes in other countries beyond the control of New Zealand authorities, could have a dramatic impact on New Zealand’s ability to recruit and retain specialists. There are signs this is happening, especially in Asia, which may be significant for New Zealand because Medical Council data show IMGs from Asia have one of the best IMG retention rates.

Secondly, as discussed further below, IMG specialists have a high turnover rate compared with specialists who graduated from New Zealand medical schools. As one OECD report observed, a key risk for our medical workforce was “the failure to retain international health worker migrants in New Zealand on the medium and long term.”

Thirdly, the high turnover of IMGs reduces the capacity to bring cohesiveness to medical services. Indeed, the dependency on IMGs has led to an increasing share of senior and resident medical posts being filled by locums on short-term contracts, many of whom are themselves IMGs. This can have serious
implications for training and implementing key health policies such as developing clinical leadership, clinical networks and new innovative models of care.

Fourthly, IMGs require supervision and support for a period, thus increasing specialists’ supervisory workloads.

Not least, a ‘revolving door’ of IMG specialists is financially wasteful as recruitment is expensive.

It is for reasons such as these that Health Workforce New Zealand’s Executive Chair, Des Gorman, has stated he wishes to reduce IMGs to 15% of the workforce.9 The most effective means of achieving this would be to improve retention of New Zealand’s home-grown workforce, but Medical Council data indicates a trend in the opposite direction, with IMG specialists increasing from 35% of the workforce in 2000 (already high by international standards) to 42% in 2012.
3 IMG retention

The number of IMGs gaining general registration in New Zealand each year increased by more than 120% between 2000 and 2011 but the retention rate has been deteriorating. Of those who first registered in 2011, nearly 40% were no longer practising in New Zealand one year later, more than double the percentage loss of five years earlier.

Employment of IMGs with vocational registration shows similar trends. While the numbers registered in New Zealand have more than doubled since 2000, retention rates are declining, as illustrated in Figure 3, which shows the trend in retention rates for IMGs three years post-vocational registration. Furthermore, once these doctors leave, they do not return; the retention rate after three years gradually declines further.

FIGURE 3: IMGs LOST THREE YEARS AFTER GAINING VOCATIONAL REGISTRATION

There are many other IMGs who do not gain either a general or vocational scope of practice, but practise here under a provisional or special purposes scope. As the Medical Council explains, many of these are doctors “who do not come to New Zealand intending to stay long term. Instead, they come to fill a particular short-term need (that is, a locum position).”

It is clear from these trends that New Zealand will not have a sufficient medical workforce to meet future health demands unless we retain more doctors. The task of improving retention rates of IMG specialists is especially urgent.
In order to develop effective policy measures to improve retention rates, we need to understand why so many IMGs leave New Zealand.

A Medical Council-commissioned survey which attempted to answer this question found the main barriers to retention were low incomes, family reasons and training opportunities.\(^{11}\)

Factors that would make doctors more likely to stay in New Zealand included:

- ease for family to come to New Zealand, with 18% of respondents indicating their partners could not get visas or jobs
- ability to earn more, with 16% specifically mentioning low pay as a reason to leave
- Medical Council acknowledgement of previous qualifications and experience.

Most significant, however, was the finding that 41% of respondents were on short-term visits. This is consistent with DHB SMO exit interview data, obtained in 2012 by the ASMS through the Official Information Act, which showed the most common reason for departing was completion of a fixed-term contract.

DHBs appear to be relying heavily on locums and short-term appointments to plug workforce gaps. Workforce data provided by Auckland DHB, for example, shows that of the total number of specialists and medical officers employed by that DHB as at June 2014 (excluding staff on parental leave and leave without pay), almost one in six were on non-permanent contracts. Data from a small DHB (Tairawhiti) indicate a similar situation, with about one in seven SMOs employed on temporary contracts.

Of the new specialists and medical officers appointed at Auckland DHB in the previous 12 months, 87 (72%) were in non-permanent positions. At Waikato DHB, of the most recent 24 SMO appointments, 10 (42%) were temporary.

While some non-permanent staff will be employed to cover specialists on leave, these figures imply that non-permanent positions are being used as a stop-gap response to workforce shortages. In Auckland DHB’s general surgery services, for example, 38% of the specialist/medical officer workforce are in temporary positions; in the Emergency Department 42% (child ED) and 31% (adult ED) are on short-term contracts. Given DHBs have a poor record of accuracy for some of their workforce data, this data must be treated with caution.

On the face of it, the figures suggest DHBs are simply unable to attract sufficient staff other than on a temporary basis.

To date, Australia has been the main destination for New Zealand specialists heading overseas. While it will continue to draw on our workforce for the foreseeable future, the number of senior doctors going to Australia, as opposed to...
to other countries, may change. Australia’s moves towards self-sufficiency in its specialist workforce may see fewer New Zealand-based specialists heading that way over time (although the indicators are mixed and are likely to vary between specialties). Many of our workforce losses are increasingly IMGs, many of whom return to their home countries. This suggests that conditions in those countries are becoming more important with regard to New Zealand’s recruitment and retention.
4 Australia’s specialist workforce trends

Health services in Australia face similar pressures to New Zealand’s: a growing and aging population, changing nature of the burden of disease, rising public expectations and medical workforce shortages in many areas, resulting in a heavy dependence on international medical graduates (though still considerably less dependent than New Zealand).

A Health Workforce Australia (HWA) report published in November 2012 says: “Analysis of the existing workforce position indicates most medical specialties are perceived to have some level of expressed demand exceeding available workforce (either through maldistribution or insufficient workforce numbers)... A number of specialties were assessed as currently in shortage, (expressed service demand exceeds the existing workforce, ongoing vacancies exist and/or there are extended waiting times).”

Specialties perceived to be in shortage included:12

- general medicine
- medical oncology
- psychiatry
- radiation oncology.

Australia has responded to long-term shortages by increasing its medical school intake with the ultimate aim of making Australia “self-sufficient” in the supply of doctors by 2025. Consequently, the number of Australian medical graduates entering the workforce has increased from approximately 1,600 in 2006 to an estimated 3,500 in 2012.

In the meantime, Australian Medical Association reports to its Industrial Coordination Meeting (ICM) in April this year noted that significant increases in specialist remuneration have gone a long way to filling vacancies (though not necessarily addressing shortages, since for a number of reasons vacancies are not seen as an accurate indicator of shortages).

However, the “self-sufficiency” policy will take some years to kick in fully, with regard to the specialist workforce. Furthermore, Australia’s aim of self-sufficiency poses a considerable challenge. According to scenarios outlined in the HWA report, a 95% reduction in IMGs by 2025 would require 15,200 doctors to fill the gap, “demonstrating the significant role of international contributions to the medical workforce in meeting current and projected future demand”.

Workforce shortages in provincial areas remain a major challenge. So while employment opportunities may be limited for most specialties in metropolitan areas, there will continue to be opportunities in rural areas. There may be particular opportunities in a number of specialties that HWA predicts will be in short supply in 2025 (compared to their current position), if recent trends in supply and demand continue.

These include:
- obstetrics and gynaecology
- ophthalmology
- anatomical pathology
- psychiatry
- diagnostic radiology
- radiation oncology.
5 Growing importance of other countries for departing specialists

While there is a dearth of research on the reasons why IMGs leave New Zealand, the evidence available suggests most IMG leavers return to their country of origin. New Zealand’s high and increasing dependency on IMG specialists, and their high departure rate relative to New Zealand-trained doctors, raises the prospect of IMGs’ countries of origin gaining greater significance with regard to New Zealand’s workforce losses.

The United Kingdom is by far the most significant source of IMG specialists, with nearly 1,600 doctors (including GPs) on the vocational register as at June 2013. Other major sources include (in order of importance) South Africa, India, Australia and the United States, which together account for a further 1,600 doctors on the vocational register.

Medical Council data show that of the doctors from those five counties, three have particularly poor retention rates. Just under 31% of doctors from the United Kingdom are retained two years after registration, dropping to just over 20% after eight years. Similarly, just 37% of doctors from Oceania (mostly Australia) are retained two years after registration, dropping to fewer than 23% after eight years. Worst still, less than 35% of doctors from the Americas (mostly the United States) are retained one year after registration. Seven years after registration, just over 11% remain.

Doctors from India and South Africa have better retention rates, but they are far from good. About half of the doctors from Asia (mostly India and Sri Lanka) and sub-Saharan Africa (mostly South Africa) are lost five years after registration.

As an OECD report puts it:

In order to compete more effectively [in the international medical market], New Zealand would need to improve the critical issue of the retention of international health worker migrants, and in particular doctors. As mentioned previously, turnover is very important, as only 33% of international medical graduates remain in New Zealand after registration. A better management of health worker immigration necessitates improving retention… Improving wages and working conditions in the health sector, developing further skill-mix approaches, and attracting back health workers who have left New Zealand, are all complementary approaches that need further consideration.14
As noted earlier, New Zealand is also vulnerable to changing conditions and increasing demands in IMGs’ countries of origin. Such changes could not only impact on recruitment and retention of IMGs but also on New Zealand-trained doctors.

In the United Kingdom, for example, there are reports of continuing shortages in some areas despite steady increases in the specialist workforce during the last decade, following a major recruitment drive initiated by the Government in 2000. Severe shortages of accident and emergency (A&E) consultants reportedly saw NHS hospital trusts last year spending half-a-million pounds each on locums to cover unfilled vacancies, which prompted an urgent campaign to recruit more than 1,100 consultants.15

A recent report to the House of Commons, however, states:

Many hospitals, and especially those facing the greatest challenges, struggle to fill vacant posts for A & E consultants. There is too great a reliance on temporary staff to fill gaps, which is expensive and does not offer the same quality of service…. We are not convinced that the Department has a clear vision of how to address either the immediate or longer term shortage of A & E consultants.16

An earlier report to the House of Commons last year acknowledged shortages in various specialties and in some geographic regions, such as relatively deprived areas.17

Earlier this year it was reported that up to a fifth of posts for senior doctors were going unfilled at three NHS trusts that have been investigated over high death rates. Some hospitals were also struggling to fill registrar positions.18

Media reports highlighted European Commission figures showing the United Kingdom had fewer doctors per head of population than almost all other European Union countries, only beating Slovenia, Romania and Poland.19

The latest census of consultants by the Royal College of Physicians found about half of the consultant appointments advertised in acute and geriatric medicine were either cancelled or not filled. As well as variations across large areas, there were also “differences within regions, with some hospitals (especially in rural areas) unable to fill vacant consultant posts.”20

The President of the Royal College of Physicians, Sir Richard Thompson, recently warned of widespread understaffing in acute medicine, especially overnight and at weekends, which posed a direct threat to patients’ safety. “The NHS is under-doctored, under-nursed, under-bedded and under-funded. There are too few doctors to do the increasingly large job to a high standard, and safely, and compassionately,” Sir Richard told the Guardian newspaper. His comments were supported by the Chair of the British Medical Association, Dr Mark Porter, who said: “Many of Thompson’s comments will be recognised by those working in the NHS. Doctors are working harder than ever before as
all NHS services come under enormous pressure from a combination of rising workload, falling resources and staff shortages in key specialities."

Scottish media have recently reported a ‘looming staffing crisis’ for the NHS in Scotland, with official statistics indicating consultant vacancies increasing from 143 to 213 in the 12 months to September 2013, including 60 positions remaining vacant for more than six months.

In Wales, the Royal College of Physicians is reported as saying staff shortages are so severe that services ‘face collapse’. The college said a lack of medical staff was putting a huge strain on certain areas within the NHS and the health service’s budget is not sufficient to safely deliver all services in all of Wales’ hospitals. The NHS in Wales faced a number of ‘urgent challenges’, with an aging population, increasing numbers of chronic conditions and health services which were spread too thinly. The College’s comments came a day after NHS Chief Executive David Sissling admitted that winter pressures on services had led to the cancellation of 2,600 operations in the last few months of the financial year.

Finally, in Northern Ireland, with a population of 1.8 million, a recent report pointed to 95 consultant vacancies, 73 of which were considered long-term.

While recent immigration policies in the United Kingdom have made it more difficult for specialists outside of the European Union to gain employment there, the NHS continues to rely heavily on non-EU specialists. A 2013 report prepared by the General Medical Council (GMC) shows the number of non-EU specialists grew by 45% between 2007 and 2012, though it is not clear how many of those were working in the UK and completed their specialist training before the immigration policies were introduced.

The GMC observed:

"It is clear that parts of the UK have relied, and continue to rely, on international medical graduates [non-EU doctors], and research suggests that they have often ended up working in less popular areas in the UK. Ageing of these doctors raises concerns about who will work in these areas when they retire."

The report also found the number of female specialists increased by 18% between 2007 and 2012, compared with a 6% decrease for male specialists. “The difference between male and female working patterns raises issues about the total number of doctors that will be required in the future if the proportion of those working part time continues to grow.”

Significant shortages of medical specialists are also being reported in the United States. Atul Grover, spokesperson for the Association of American Medical Colleges (AAMC), is reported in the New England Journal of Medicine:

“In any specialty that cares for older adults, there will be severe, increasing
shortages — and we’re already seeing some of the same recruiting issues in the academic sector that we see in the community. The biggest concern is that over the next 10 years, as 10,000 baby boomers turn 65 every day, things will get much worse.26

The short-list Dr Grover cites includes cardiology, critical care, diagnostic radiology, oncology, and orthopaedic surgery. Shortages in dermatology, general surgery, neurology, psychiatry, urology, and vascular surgery are also becoming more acute, recruiters report.

“If you look at the data, in some of these niche areas the packages being offered are astronomical. I’ve heard of paediatric surgeons being offered $500,000 just a year out of fellowship.”

Dr Grover cites similar stories in diagnostic radiology, where fellows are not only garnering top-dollar salaries but also calling the shots on employment terms. “Some are getting contracts with eight or nine weeks of vacation, no call, and no weekends.”

In its June 2010 report on non-primary care specialty shortages, AAMC’s Centre for Workforce Studies ventured a dire prediction for the decade ahead: a current deficit of 33% in surgical specialties, and an undersupply of 33,100 surgeons and other specialists by 2015, increasing to 46,100 by 2020.

Specialist shortages in the United States, as well as in the United Kingdom, could have widespread implications internationally. In actual numbers, the United States is the largest destination country for foreign-trained doctors, followed by the United Kingdom (despite its restrictive immigration policies).27 For New Zealand, it is likely to make recruitment and retention of IMGs more difficult as the international specialist market becomes more competitive, as predicted in an OECD report.28
Over the past decade there has been an increasing trend toward centralised, sub-specialised care in New Zealand and internationally. However, a country the size of New Zealand needs a significant emphasis on the generalist nature of specialists (ie, rural generalists and general specialists, such as general surgeons and physicians who retain a broad scope of practice).

Current evidence suggests that the trend towards centralised, sub-specialised care is not always in the best interest of the patient or cost effective for the health system.

Andrew Connolly, now Chair of New Zealand’s Medical Council, told the ASMS annual conference last year that generalists are essential for providing timely, good quality acute care in most hospitals. While a generalist is competent across a broad spectrum of his or her specialty, and can deal with a range of acute symptoms or refer on, a ‘pure’ subspecialist is restricted to a narrow array of activity within a specialty. In all hospitals, generalist medical practitioners are needed to serve an aging community among whom chronic multi-system diseases are on the rise, and to manage undifferentiated patients with many conditions.

The generalist (with or without subspecialty interests) in collaboration with other medical specialists is the key to successfully managing the health care of an aging population and increasing numbers of patients with complex multi-system conditions. Without an adequate supply of generalists, as Andrew Connolly points out, many more people living outside the main centres will need to travel for elective treatment, and it would be difficult to provide a safe and sustainable service, even within the main centres.

New Zealand’s increasing dependence on recruiting specialists from larger countries overseas, which logically have a greater emphasis on sub-specialisation, is contributing to an imbalance between generalism and sub-specialism.

Without adequate measures to retain our senior hospital doctors, and our New Zealand graduates once they have finished their specialist training, we cannot reduce our dependence on overseas-trained doctors, or rebalance our workforce. We will not achieve the correct proportion of generalists and sub-specialists, nor will we have the correct proportion of senior doctors to doctors-in-training.

Without adequate measures to retain our senior hospital doctors, and our New Zealand graduates once they have finished their specialist training, we cannot reduce our dependence on overseas-trained doctors, or rebalance our workforce.
7 Changing demographics

As in other OECD countries, a large number of medical specialists are approaching retirement. In 2012 the average age of a New Zealand specialist was 50.5 years. In 2001 the largest group of specialists fell in the 40-44 age group; it is now in the 50-54 age group, as shown in Figure 4.

The Senior Medical Officer Commission suggested the sharp drop in numbers from the age of 55, “seems likely to reflect a loss of [specialists] to the system through early retirement and emigration”. Unpublished MCNZ workforce survey data indicated that on recent trends, about 19% of the specialist workforce will be lost within the next five years due to the drop-off of specialists from the age of 55.29

![Figure 4: Number of Specialists by Age Group, 2001, 2004, 2007, 2010 and 2012.](image)

A report prepared for Health Workforce New Zealand acknowledges that “older doctors are working fewer hours and many are retiring earlier… Concern about earlier retirement of doctors and the aging of the medical workforce has been noted by commentators and many of the specialist colleges, as it is considered this will exacerbate current workforce shortages.” 30

The report suggests that “if doctors can be encouraged to work longer, albeit for fewer hours per week, in different specialty areas and/or in different roles,
workforce supply may not decrease as fast as predicted”. It identifies a number of potential ‘solutions’, including suggestions for improving career satisfaction (including interventions to reduce stress), changing work roles, introducing more part-time and job-share positions and more flexibility in work hours, retraining in other specialties, and career and succession planning.

However, the report notes limited New Zealand research about doctors’ intentions with respect to retirement, and what would keep them in practice. It calls for more research and information to enable longer term workforce modelling and to align the needs of younger doctors wanting work-life balance and ‘portfolio lifestyles’ with more flexible working conditions for older specialists.

Much of this requires action by HWNZ working with other organisations, such as DHBs, professional colleges and the Medical Council. Aside from producing an end-of-career planning resource, it is unclear how HWNZ has followed up. Its “key strategic themes and identified deliverables” for 2013/14 do not include any work specifically targeting the older workforce.

The growing number of women in the workforce, here and internationally, is adding to the challenges posed by an aging specialist workforce. Medical Council and Census data show women tend to work fewer hours than men. In 2012, women comprised almost 30% of the specialist workforce, compared with 19% in 2000. Gender statistics for practising registrars indicate the proportion of female specialists will continue to increase. In 2012, 49% of registrars were female.31 Females outnumbered males in psychiatry, paediatrics, pathology, and obstetrics and gynaecology and they made up close to half of registrars in emergency medicine and diagnostic radiology.

Assuming these trends will flow through to the specialist workforce in the coming years, the projected specialist headcounts required to ensure a viable and secure workforce will need to be adjusted upwards to achieve the same number of full-time equivalents.

In addition, a growing desire for a better work-life balance generally, and particularly among the younger generations of doctors, is likely to have a similar impact on workforce supply over the next decade. One Australian survey indicated 81% of hospital doctors want greater access to flexible working arrangements to allow them to spend more time with family and friends, or continue further formal training. The work-life balance factor is now a common draw-card in advertisements for medical positions.32 33
8 Current trends indicate growing shortages ahead

There have been a number of media reports, along with statements by the Minister of Health, describing an ‘over-supply’ of doctors, with New Zealand medical school graduates being unable to find employment in DHBs and job-seeking overseas doctors being turned away. HWNZ Executive Chair Des Gorman has described the current situation as a ‘low vacancy medical marketplace.’ 34 35 36 37 38

The lack of DHB positions for medical graduates, however, as former New Zealand Medical Students Association President Phillip Chao put it, is simply due to a lack of planning to accommodate a well-signalled increase in number of medical school graduates.39 And the lack of medical vacancies is primarily due to DHBs attempting to save money by not establishing new positions – despite demonstrated need – rather than an indicator of a medical ‘over-supply’. As the ASMS has previous discovered, official vacancy rates tend to understate the extent of shortages. The number of funded specialist positions often falls short of numbers recommended by medical colleges. In addition, there may be ‘suppressed’ vacancies (where a post is not advertised because management is attempting to save money or has no expectation of successful recruitment). An ASMS survey of senior doctors (mostly clinical directors) in selected DHBs in 2008 found their assessment of ‘true’ vacancies far exceeded the number of vacancies being advertised.40

An indication of the true state of the medical workforce is well illustrated in a recently published survey of doctors at Capital and Coast DHB showing that over a 12-month period 82% of respondents (55% of whom were specialists) turned up to work when they were sick.41 The main reasons given for practising while ill were: ‘Not wanting to burden co-workers’ and ‘Feeling of duty to patients’.

‘Free text’ comments concerning the ‘burden on colleagues’ include:

- Very hard to take sick leave for self without huge amount of guilt for letting colleagues down.
- Calling in sick makes life worse for everyone else.
- I come to work when perhaps I wouldn’t as it is too dangerous not to and overburdens my already stretched colleagues.
Comments also raised issues about the hospital being unable to cope with medical staff illness. For example:

- **No cover is available for sickness of SMOs.**
- **Very limited cover for evening and night duties.**

Of those who went to work sick, 75% knew they were too ill to perform to their usual standards, and 49% reported going to work with an infectious illness.

The DHB’s Chief Medical Officer, Geoff Robinson, a co-author of the study, said the result would be similar in any hospital and could be an even bigger problem in provincial centres, where fewer staff were available to cover.42

Noting the high prevalence of sickness ‘presenteeism’, the study authors concluded that to avoid potential harm to patients and health care workers, better staffing resources are needed, along with changes in the organisational culture to allow doctors to feel comfortable to take sick leave when appropriate.

The study authors, noting the high prevalence of sickness ‘presenteeism’, concluded that better staffing resources and a change in attitudes by doctors toward their illness are necessary to avoid potential harm to patients and health care workers.

That such a survey can produce such results at a time when there is talk of an ‘over-supply’ of doctors demonstrates a disparity between the official version of the state of the medical workforce and the reality on the ward.

With regard to the specialist workforce in particular, all the available data points to continuing entrenched shortages.

Five years after an ASMS submission to the Senior Medical Officers’ Commission described the specialist workforce as a ‘leaking bucket’, Medical Council data shows the flow into the bucket has increased but the holes have got bigger. The net effect is that the specialist workforce level is rising, but slowly – well below the required rate to secure a sustainable specialist service that was agreed with the country’s district health boards in the joint workforce Business Case of 2010.43

The need for the specialist workforce to grow significantly to meet increasing demand is not contested. As the Commission put it, “Under any scenario the demand for SMOs will increase steeply in the future.” The question has been: how steep? 44

In developing the specialist workforce Business Case with the DHBs, it was agreed the required growth rate would be based on New Zealand’s total (public and private) specialist workforce per population matching that of Australia’s by 2021, and that the DHB specialist full-time equivalent workforce would grow at a parallel rate.
The rationale for using Australia as a benchmark is that its population is of a similar age structure to New Zealand’s (13% of Australians were aged 65 and over in 2007 and this is projected to grow to approximately 19% by 2021). Like New Zealand, Australia has a near balance of GPs and hospital specialists, relative to many other countries, as well as a similar proportion of nurses to New Zealand on a per population basis. To be on a medical workforce par with Australia, New Zealand’s GP workforce will need to grow at a similar rate to hospital specialists. New Zealand and Australia also share a common medical training system and medical colleges.

That benchmark is regarded as a minimum requirement since Australia, while in a relatively good position compared with New Zealand, is nevertheless experiencing specialist shortages in many areas. Workforce projections indicate a range of specialties will still be in short supply well beyond 2021. To match Australia’s specialist workforce level is not an ideal goal but an achievable one that would help ensure clinical viability, quality and access to services are at least maintained.

Since the DHB-ASMS Business Case was agreed in 2010, a number of developments have occurred which necessitate an update on New Zealand’s required workforce growth rate.

- The average growth rates required under the Business Case agreement have not been met to date, so that each year the required rate has become steeper.
- The specialist workforce data on both sides of the Tasman have been updated and improved upon (though there remains considerable room for further improvement).
- More recent New Zealand population projections to 2021 are lower than previous projections.
- A substantial report on specialist workforce supply and demand in Australia, published in November 2012, indicates Australia will have 1.5 practising specialists per 1,000 population by 2021, not 1.4 per 1,000 population, as estimated in the Business Case.

For New Zealand to have 1.5 practising specialists per 1,000 population by 2021, based on the latest available population projections (2011 base) and medical register data, the total specialist workforce (public and private) needs to increase from a headcount of 5,109 in March 2014 to 7,200 in March 2021 – an annual average net increase of about 300 specialists. That is a requirement of about 80 specialists per year above the average net growth over the last three years, as indicated in the medical register.

Note: The columns in 3rd, 4th and 5th Table 3 of the Business Case wrongly refer to ‘SMOs’ instead of ‘specialists’. The error does not affect the table’s figures. SMOs (Senior Medical Officers) include medical and dental officers as well as medical and dental specialists.
Unless the current growth rate improves significantly, New Zealand’s total (public and private) specialist workforce target for 2021 will fall short by a headcount of approximately 560 specialists.

The required annual growth for full-time equivalent DHB-employed SMOs (mostly specialists) was estimated for the Business Case at 90% of the total (private and public) specialist headcount projection, which in turn was based on specialist workforce data from the medical register. However, DHB SMO workforce data improvements since then show that proportion is averaging a little under 80%, reflecting a degree of SMO part-time employment in the public sector, as well as taking into account the number of specialists working solely in the private sector.

As at March 2014 there were 3,913 FTE SMOs employed by DHBs and the average growth rate over the three years up until then was 164 FTEs per year (180 headcount). The requirement for 2021, based on 80% of the total New Zealand specialist headcount requirement, is 5,760 SMO FTEs (1.2 FTEs per 1,000 population). To reach that benchmark by 2021 requires a net growth rate of approximately 260 FTE SMOs per year (including approximately 230 FTE specialists). Unless the current growth rate improves, New Zealand’s DHB workforce target for 2021 will fall short by approximately 670 FTE SMOs.

---

*e The Business Case base estimate for the SMO workforce was calculated from DHB payroll data as at December 2009, which indicated there were 3,432 FTE SMOs at that time. A more refined series of DHB data published as part of DHSSS’s Health Workforce Information Programme indicate there were just 3,226 FTE SMOs as at June 2010.*
Furthermore, while the Minister of Health has frequently claimed significant increases in the medical workforce over recent years, the growth of the DHB specialist workforce averaged just 141 per year for the Government’s first four budget years. That is a drop from the average 162 specialists per year over the last four budget years of the previous government. In only one year – 2007/08 – has the growth rate reached the 220 FTE specialists required.

The consequences of a continuing under-supply of specialists include:

- increased risks to the clinical and financial viability of some services
- more unmet need
- increased wasteful expenditure
- reduced cost-effectiveness of hospital services overall
- decreasing ability to improve safety and quality of services
- reduced capacity to develop more innovative and efficient services
- continuing heavy dependence of overseas recruitment
- escalating specialist turnover rates; and reduced capacity to train new specialists, with far-reaching negative flow-on effect for the whole medical workforce.
The effectiveness and efficiency of the New Zealand health system has for some years been compromised by poor retention rates of both resident and senior medical officers, especially among the high proportion of IMGs in both groups.

DHBs’ evidently high use of short-term contracts for SMOs shows they cannot attract adequate permanent staff to fill the gaps [despite the DHBs’ expressed preference for permanent appointments]. The result is a double revolving-door effect – one which is seeing increasing numbers of IMGs passing through after they have gained either a general or vocational scope of practice (an indication their original intention may have been to stay long-term); the other which is seeing increasing numbers of IMGs passing through on short-term contracts as a stop-gap measure to attempt to maintain services.

At the same time, there is a growing urgency for services to be clinically led, to be better coordinated and to involve a strong team approach. Pressure is mounting for services to do more for less. There is also increasing expectations for more work-life balance, which is becoming an important factor in recruitment of staff. All of these factors require a stable and cohesive workforce. The DHBs’ retention and recruitment record has been running counter to this and the available data indicates it is getting worse.

The best way to reverse the negative trends would be to implement policies to retain more New Zealand-trained specialists in order to reduce our reliance on overseas recruitment. However, we depend so heavily on IMGs that any attempt to reduce that dependence to a meaningful extent will only be possible over the longer-term. Retention strategies, targeted at both New Zealand SMOs and those recruited from overseas, are therefore needed – and urgently. At the same time, effective policies – and the necessary resources to implement them – are needed so DHBs can recruit SMOs on a long-term basis.

International workforce indicators point to an increasingly competitive market for medical specialists which, as an OECD report warned, “would make the New Zealand trained health professionals harder to retain, and the potential pool of foreign recruits more difficult to attract”.47

In 2011, HWNZ’s Executive Chair Des Gorman acknowledged “the key issues that are germane to the number of doctors in our workforce are recruitment, migration and retirement, and all three require address”.48 However, to date there are no significant measures in place that address these issues with respect
This may be due to a lack of a political imperative to act. As the ASMS has previously reported, while the consequences of SMO shortages are far reaching, they go largely unnoticed by the public, in part because the shortages are so entrenched. They have become the ‘norm’ in many areas. Incursion of clinical workloads into important non-clinical time has become an accepted and unavoidable fact of life for many SMOs. This, and the high use of locums to fill service gaps temporarily, have saved many services from becoming dysfunctional – and have largely kept the negative effects of shortages out of the newspapers.

Ignoring the issue, however, simply means the issue grows and the consequences become more severe further down the track.

Robert Francis QC, who chaired the public inquiry into the serious breakdown in patient care at Mid Staffordshire Hospital in England and was in New Zealand in October 2013, had a word of warning from lessons learned in the inquiry which could well be applied to the issue of specialist shortages:

“I think the important thing is not to take false comfort from the fact you haven’t heard any bad news.”

In New Zealand, the bad news has had limited visibility to date.
References


7 S Seethalakshmi. “India is the place to be, say home-bound doctors,” The Times of India, 3 September 2013.


11 MCNZ. Doctors leaving New Zealand: Analysis of online survey results. MCNZ, September 2011.


19 E Gosden. “UK has fewer doctors per person than Bulgaria and Eastonia,” Telegraph, 3 January 2014.


33 SMO Commission (2009).

34 T Ryall. Speech opening the Royal College of Surgeons’ Annual Conference, 27 August 2012.


ASMS. *Repairing the Leaking Bucket*. A paper to the Commission on Competitive and Sustainable Terms and Conditions of Employment for Senior Medical and Dental Officers employed by DHBs, ASMS 2009.


B Heather. "Sick doctors taking their bugs to work," The Dominion, 1 August 2014.

ASMS and 20 DHBs. *Securing a Sustainable Senior Medical and Dental Officer Workforce in New Zealand: The Business Case*, November 2010.


