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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
Association of Salaried Medical Specialists

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1 SUMMARY

1.1 The Commission on competitive and sustainable terms and conditions of employment for senior medical and dental officers employed by DHBs (the SMO Commission) is charged with recommending to the Minister of Health, the District Health Boards (the DHBs) and the Association of Salaried Medical Specialists (the ASMS or Association), a national recruitment and retention strategy that will provide a sustainable pathway to competitive terms and conditions of employment.

1.2 The establishment of the SMO Commission was a critical part of the settlement of the New Zealand District Health Boards Senior Medical and Dental Officers Collective Agreement (1 July 2007-30 April 2010), the multi-employer collective agreement (the MECA) negotiated by the DHBs and ASMS. It is intended that the Commission's recommendations will form the basis for discussion around the next MECA.

1.3 Sustainability means ensuring that sufficient resources, as determined by New Zealanders, are available to provide timely access to quality services that address New Zealanders' evolving health needs, and that those resources are managed efficiently.

1.4 Real health funding increases over recent years have not flowed through to many hospital-based services. DHBs have reported that funding (the "Future Funding Track") which was intended to cover the costs of inflation, including labour costs, has **not** actually kept pace with inflation, leading to increased pressures on current resources.

1.5 Continual improvement in the efficiency and effectiveness of our health services is vital, given the increasing health demands we face. An important part of that ongoing process is to develop better ways of assessing "productivity", recognising the value of producing good health outcomes.

1.6 Health funding decisions need to take account of the substantial but so far largely unmeasured costs of unmet health needs. The New Zealand public has consistently indicated a desire to see the public health system adequately funded to meet New Zealanders' needs.

1.7 While there have been improvements in New Zealanders' health status, OECD key health indicators suggest New Zealanders' health needs are relatively high compared to most other countries.

1.8 Like many other countries, New Zealand's population is ageing, as well as growing, which will result in significantly increased demands for health services over the coming decades, which will require a corresponding increase in demand for health professionals.

1.9 These services in our hospitals are provided in the main by multidisciplinary teams led by senior doctors. Without the leadership of a senior doctor most secondary health care services cannot function. Terms and conditions of employment for senior doctors and dentists in the public sector should be such that they allow New Zealanders accessible and high quality hospital care.

1.10 Medical specialists are part of a global market for skills which are becoming increasingly scarce. New Zealand is not currently well positioned in this international market The size of New Zealand's medical specialist workforce, adjusted for population and compared with other countries, is at the bottom of the OECD .

1.11 Three scenarios estimated the median average increase in the number of specialists that New Zealand would have needed over the coming decades from 2007:

(a) The status quo scenario: about 120 per year, but it is likely this would perpetuate current shortages.

(b) The Australian scenario: an additional 297 specialists per year.

(c) The OECD average: an additional 350 specialists per year.

1.12 Medical Council statistics show the net increase of specialists over the last seven years has averaged around 100 per year. New Zealand has the highest dependency on overseas-trained specialists (40%) in the OECD.

1.13 The government approach to date is to attempt to mitigate pressures on the health workforce as a whole by improving coordination and collaboration of services and developing new models of care. Any impact that such measures may have on the future demand for specialists is unknown. There is no evidence to suggest a reduced need for specialists, assuming that any specialist's time that may be freed up is used to improve the scope and effectiveness of the service, including addressing unmet needs. Depending on the models developed, there may be a need to increase the number of specialists in order to improve efficiency. Government policy to make greater use of the private sector could further increase the demand for specialists and further limit their availability in the public sector

1.14 Medical Council workforce statistics indicate that over a seven-year period nearly 1500 specialists left the workforce. Many are leaving for better-paid positions overseas. At a conservative estimate, 29% of New Zealand doctors are currently working in Australia alone. Vacancy rates and turnover rates for New Zealand specialists exceed the rates recorded in countries such as Australia and the United Kingdom. Specialists are in increasing demand internationally. Some countries have committed themselves to comprehensive recruitment and retention programmes, including aggressive recruitment campaigns in New Zealand.

1.15 OECD data indicate New Zealand specialists are poorly paid in relation to countries such as Australia, the United Kingdom and Canada.

1.16 New Zealand's serious situation with regard to the recruitment and retention of senior doctors has been compounded by the unexpected large improvements in the terms and conditions of employment in Australian states in response to their own serious specialist shortages.

1.17 Australia is a greater threat to New Zealand than other developed countries because of its close geographic proximity and our shared training schemes (most colleges are Australian and New Zealand, or Australasian) New Zealand is part of an Australian medical workforce market and this should be reflected in the terms and conditions of employment for New Zealand's senior doctors. The fact that the movement of senior doctors is virtually 'one-way' demonstrates that our current terms and conditions are not competitive with the Australian states.

1.18 New models of care, innovative ways of working or reconfigurations are highly unlikely to ameliorate shortages of specialists.

1.19 When senior doctors leave the employment of DHBs there is usually a mix of 'push' and 'pull' factors. Only the Commission can focus on providing advice enabling New Zealand to address the 'pull' factors. Other initiatives can focus on addressing the 'push' factors including the active promotion of enhanced clinical engagement and leadership envisaged by both the MECA and the Time for Quality Agreement through mechanisms such as the National Consultative Committee, promotion of the concept of clinical networks and the systematic promotion of accurate job sizing and non-clinical time.

1.20 However, as noble and constructive as these initiatives are, they will come to little unless the terms and conditions of employment of senior doctors are at a sufficient level to allow DHBs to compete effectively in an Australian medical labour market.

1.21 Canada is in a comparable situation vis-a--vis the United States as New Zealand is to Australia. It has dealt with the attractions of a richer larger neighbour by increasing remuneration for medical specialists.

1.22 New Zealand currently has no national recruitment and retention strategy to ensure that its specialist workforce is adequate to meet New Zealand's increasing health needs.

1.23 In order to have an effective recruitment and retention strategy, terms and conditions of employment need to be competitive with Australia. These would include:

- Specialist salary scales with Step 1 increasing from $128,596 to at least $213,066 and Step 9 from $164,852 to at least $280,747.
- Reimbursement of continuing medical education expenses increasing initially to around $20,000 but then to around $30,000.
- The employer contribution to superannuation increasing from 6% to at least 9%.
- The enhanced rate for average hours working on rostered after-hours on-call duties and responsibilities increasing to at least double-time or higher to compensate for the greater onerousness of after-hours call rosters and shifts in New Zealand.

2 BACKGROUND

2.1 The SMO Commission was established as part of the national DHB MECA settlement, ratified by the Association or ASMS) in May 2008. The MECA followed 21 months of negotiations, including stopwork meetings nationwide and a national ballot in which nearly nine out of ten ASMS members voted for limited industrial action.

2.2 The depth of feeling demonstrated by ASMS members was extraordinary. Never before had senior doctors taken part in national stopwork meetings, never before had they considered national industrial action and never before had they voted to take national industrial action

2.3 Nor were the parties able to agree on the extent of the pressures experienced by the senior medical workforce. DHBs acknowledged the situation was "serious"; ASMS members at stopwork meetings described it as a "crisis".

2.4 Eventually a settlement was reached. However, the settlement would not have been acceptable to senior doctors without the establishment of the SMO Commission. This decision was a compromise between the ASMS and the DHBs, since the parties were unable to agree on what was needed to achieve "competitive terms and conditions" of employment for senior doctors.

2.5 The parties were unable to consider what might comprise competitive terms and conditions because of the strict fiscal parameters on DHBs during the negotiations. With the active involvement of government, the SMO Commission was established to provide expert advice, outside the negotiation process, to the parties and government on what should comprise competitive terms and conditions of employment. The hope was that, outside of the negotiation process, the SMO Commission would be able to take a long term view that could include the long-term financial implications of maintaining an adequate specialist workforce.

2.6 The formation of the SMO Commission recognises that New Zealand is potentially vulnerable as a small, relatively isolated country in retaining and recruiting (including New Zealand and internationally trained) senior medical and dental officers. There is a need therefore, as part of an effective recruitment and retention strategy, for DHBs to provide competitive terms and conditions of employment in the applicable national collective employment agreement.

2.7 This SMO Commission (and therefore this paper) concerns the senior doctors/specialist workforce only; it is acknowledged that this is but one part of a dynamic, multidisciplinary whole.

2.8 The SMO Commission's task is to recommend what competitive terms and conditions of employment should be and the purpose of this paper is to provide the rationale for these recommendations. It is expected that the Commission will provide robust recommendations which will then become the subject of 'tripartite' discussions between the ASMS, DHBs and government leading into the next MECA negotiations.

Role of ASMS

2.9 The ASMS is the professional union which negotiates on behalf of salaried senior doctors and dentists (outside the universities and government departments). Coverage includes secondary and tertiary care specialists (the very large majority) along with medical and dental officers and some general practitioners (both vocational and general registrants). The overwhelming majority are employed by DHBs (most of the rest are in various non-government organisations). Our membership in DHBs is at least 90% of its potential making us among the unions with the highest density in New Zealand.

2.10 The ASMS is as much known for its advocacy of a high quality, comprehensive and accessible public health system as it is for negotiating terms and conditions of employment. But we are acutely aware that New Zealand cannot have the former without the latter in such a labour intensive sector.

Who are Senior Medical Officers?

2.11 "Senior Medical Officers" (SMO) is a common term used in the sector to describe senior doctors (and usually dentists) as opposed to resident medical officers (RMOs) who in the past were sometimes referred to as junior medical officers. Most senior medical officers or senior doctors will also be specialists (or consultants) and have completed a fellowship in one of the specialist medical colleges and have been registered by the Medical Council with a vocational scope of practice in that branch of medicine.

2.12 There is also a small number of senior medical officers who either did not enter a college training programme to become a specialist or who for one reason or another began but did not complete the training required to become specialists. Such doctors were previously known as Medical Officers of Special Scale (or "MOSS") but are now simply referred to as medical officers. They will usually have general registration but are recognised within the specialty in which they work as senior medical officers. Historically, and in the current MECA, there has been an overlap between the lower end of the specialist scale and the upper end of the medical/dental officer scale.

2.13 The Association has 409 medical officer members, some of whom are working in small rural hospitals and may become specialists as their vocational branch becomes established. In the bigger urban public hospitals, other very experienced medical officers may participate on the specialist after-hours acute roster as "specialists" while others with less experience may participate on a registrar or "first on call" roster.

2.14 The MECA defines as a specialist those who are registered by the Medical Council with a vocational scope who are working in that branch or a similar branch with minimal oversight (MECA clause 10.3). This includes a small but growing number of vocationally registered GPs who are employed by the DHBs.

2.15 This paper focuses on those doctors who are in those branches of medicine traditionally referred to as medical specialists.[1]

2.16 This is not to say that DHBs do not face acute recruitment difficulties recruiting dentists and dental specialists (competition is mostly from the private sector), recruiting GPs[2] and recruiting medical officers. They do. However, these groups are small and the data on those in employment is virtually non-existent.

2.17 The challenge to senior dental officers is not Australia, where if anything terms and conditions are inferior (although this is likely to be offset by salary sacrifice) but from the much larger private sector in New Zealand. Currently the Association has 54 dental specialists and 42 dental officers as members

2.18 The ASMS membership system reveals that 1261 of our members who are employed by DHBs describe themselves as part-time and 2129 as full-time. This information however should be treated with some caution as we do not have the means to monitor our members' changes in full-time or part-time status.

2.19 Around 32% of Association members are women. Though we do not systematically collect data on this, the number of senior doctors who are Maori appears to be vanishingly small.

[1] Specialists are self reporting in the Medical Council survey data.
[2] The ASMS's experience in negotiating for salaried GPs suggests that the Medical Officers scale is insufficient to recruit non-vocationally registered doctors.

Senior Medical and Dental Officers' Terms and Conditions of Employment

2.20 Nearly all (around 90% or 3,403) of senior doctors employed by DHBs are members of the Association and therefore have their terms and conditions governed by the MECA. A further 219 have paid a bargaining fee and therefore have their terms and conditions set by the MECA.

2.21 The MECA has two salary scales for a 40 hour week (one for medical officers and one for specialists) with annual progression up the scale, subject only to satisfactory performance. Increasingly, an SMO's position on the salary scale will reflect their seniority as a specialist or, in the case of medical officers, years of experience within the profession. However, some DHBs will from time to time appoint an SMO higher up the scale than their experience or seniority would ordinarily warrant; they tend to do this as an aid to recruitment. The parties intended that an amendment to the current MECA (Clause 11.3(a)) would encourage initial placement to reflect relevant experience and qualifications and not be used for recruitment and retention purposes

2.22 Pay and employment equity reviews conducted in all 21 DHBs during 2007 and 2008 indicated a gender pay gap for senior medical officers.[3]

2.23 Fifteen of the DHBs reported that female SMOs earned less than male SMOs and eleven found that female SMOs started on lower salaries than male SMOs. Many reports from DHBs indicated the considerable impact (on female SMOs) of child rearing on career opportunities, superannuation and life-long remuneration. Issues also arose from the absence of, or from poor provision of, child care facilities as well as the patchy application of flexible working hours.[4]

2.24 The organising principle in the MECA is the concept of 'job size'. This is the average weekly hours of work required to undertake routine duties, non clinical duties and after-hours call. The MECA defines "full-time"[5] as being 40 or more hours each week, on average. "Full-time" does not mean "no private practice" and it is not at all uncommon for someone working three or four 9, 10 or even 11- hour days plus their rostered on-call hours to spend one, one-and- a- half or even two days a week in private practice. This is likely to be so in the so-called "procedure based" specialities such as surgery, anaesthesia, radiology, and some medical specialities such as gastroenterology and interventional cardiology. It is therefore relatively usual for a doctor in one of these specialties to be job sized at 40 plus hours a week and to also work in private.

2.25 Job size is supposed to reflect objectively the time reasonably required for a senior doctor to discharge their duties in their job description. Increasing work demands, SMO and RMO shortages and the need to schedule non-clinical duties have meant that many doctors' job size has lagged behind the hours they work and they find themselves working significantly more hours each week than they are actually paid for. Often the process of "job sizing" will result in an increase in paid hours for the SMOs in the service or a decision by the employer to increase established positions. However an increase in establishment is academic if there are no readily available recruits to fill the positions.

2.26 According to information supplied to the ASMS by the DHBs for the Association's annual salary survey, the average salary for a specialist for a 40 hour week as at 1 July 2008 was $159,863 (average for males was $162,714 and for females $153,064). Medical Officers had an average salary of $125,061 (average for males was $127,386 and for females $122,670).[6]

2.27 The archetypical pattern for hospital medical practice was for the specialist or consultant to be second on call after a registrar and to be called on the phone rarely and called into the hospital even more rarely. If this pattern was ever normal in New Zealand, it is no longer. Smaller provincial hospitals such as Gisborne, Wanganui and Timaru have few if any registrars. Specialists in emergency

[3] Public Health Sector: Pay and Employment Equity Review: Report and Response Plan, May 2008,Department of Labour
[4] Ibid
[5] FTE is used as a proportion of 40 hours though use has varied in DHBs in the past.
[6] ASMS Salary Survey as at 1 July 2008,www.asms.org.nz.

departments in the large centres are increasingly working a shift system, as are specialists in such departments as Obstetrics at Counties-Manukau and rural hospital medical officers at Queenstown, Taupo and the so-called T-Hospitals attached to Waikato DHB (Tokoroa, Thames, Te Kuiti and Taumaranui). Radiologists in Christchurch are facing the prospect of rostering extra specialists on over weekends because of extra work pressure.

2.28 Increasing patient needs and unmet need as detailed in this paper have arrived in tandem with an expectation that most patients and all difficult cases will be seen by a specialist or senior doctor. It is a theme in Health and Disability Commissioner Reports from the Burton Inquiry[7] to the last report on Christchurch Hospital Emergency Department[8] that patients need to be seen by a senior doctor in cases where treatment or diagnosis is not straightforward. This means that senior doctors are increasingly expected to be called back after hours to support junior doctors or are being expected to directly engage with acute patients both after-hours and on weekends.

2.29 After-hours call back rosters are regarded by most senior doctors in New Zealand as the least desirable part of the job. At present the majority of senior doctors receive a varying percentage of salary for being on an on-call roster (an availability allowance) and will be paid T1.5 for average time worked. Small hospitals, small departments and RMO or SMO vacancies mean that New Zealand specialists have much higher frequency of call and incidence of call than most specialists internationally.

2.30 The Royal Australasian College of Surgeons advises that the most frequent on-call roster should be a one in four roster which means one on-call period in four.[9] In New Zealand this would functionally mean that no roster could have fewer than 5 senior doctors in order to cover for leave. Many New Zealand provincial hospitals would not meet that standard in most services.

2.31 During the MECA negotiations DHBs and the ASMS had vociferous disagreements on what specialists were actually paid. The MECA is a minimum rate document and explicitly allows for more favourable terms and conditions of employment. From time to time various DHBs have found themselves short of specialists in some disciplines and have paid personal allowances of one sort or another to individuals or enhanced packages for groups. One example was when an acute shortage of pathologists in Auckland led to an annual extra $50,000 payment that gradually spread to other pathologists in the region.

2.32 The Association argued that if DHBs were finding that they had to pay enhanced rates it was a clear indication that the MECA rates were not meeting the market. There may have been reluctance by DHBs to reveal to each other or even internally the true impact of shortages, instead letting market forces appear as an unavoidable reaction to an emergency.

2.33 Recent media coverage on money paid for relocation costs reinforces that there is competition between DHBs for clinicians which brings into play market forces which are not acknowledged in collective negotiations[10]

2.34 Nevertheless most senior doctors most of the time are paid on the MECA salary scale pro rata for their average hours worked with an availability allowance for call.

[7] Southland District Health Board Mental Health Services, February-March 2001, www.hdc.org.nz.
[8] Case 07HDC14539.
[9] Standards for Safe Working Hours and Conditions for Fellows, Surgical Trainees and International Medical Graduates, Royal Australasian College of Surgeons, December 2007.
[10] Radio New Zealand Morning Report 17 December 2008

The Role of the Commission

2.35 The establishment of the Commission was a critical part of the settlement of the New Zealand District Health Boards Senior Medical and Dental Officers Collective Agreement (1 July 2007-30 April 2010), the multi-employer collective agreement (the MECA) negotiated by the DHBs and ASMS. In an extraordinary process it involved direct facilitation by the Minister of Health. The settlement and avoidance of unprecedented industrial action would not have been achieved without the formation of the Commission.

2.36 The expectation is that the Commission will make recommendations on competitive terms and conditions of employment which will then form the basis of discussions and negotiations for the next MECA commencing in May 2010. Quite deliberately the Commission is not constrained in its recommendations by the financial parameters of DHBs. This is further facilitated by the long lead-in time, 11 months between the completion of the Commission's report and the expiry of the current MECA, along with the flexibility provided under the Employment Relations Act of terms up to three years.

The Director General of Health, with the endorsement of the Minister of Health, will establish a Commission to recommend to the Minister of Health (through the Ministry of Health), District Health Boards and the Association of Salaried Medical Specialists, a National Recruitment and Retention Strategy that will provide a sustainable pathway to competitive terms and conditions of employment for Senior Medical and Dental Officers (SMOs).

This joint commitment to establish the Commission recognises New Zealand's potential vulnerability as a small, relatively geographically isolated country in:

a) Retaining current Senior Medical and Dental Officer employees,

b) Recruiting and retaining Medical and Dental Officers trained in New Zealand, and

c) Recruiting and retaining international Medical Graduates.

In reaching its recommendations, the Commission will have regard to, but not necessarily be bound by, other national conversations and work programmes, including tripartite initiatives and the work of the Medical Training Board. In its deliberations, the Commission will take into account:

a) Drivers of demand for the SMO workforce, including population health need and models of service delivery.

b) National and international supply of SMOs, including opportunities for employment, and the terms and conditions of employment for SMOs in Australia and other countries.

c) Employment opportunities available for SMOs in both the private and public health sectors.

d) Margins between specialist salary scales and the relative remuneration for Resident Medical Officers (in particular Senior Registrars) and SMOs.

e) Changes and trends in factors that affect the supply of SMOs to the New Zealand public health system.

f) The Government's priorities and health targets.

g) Any other factors it considers relevant.

h) The Commission's recommendations will be forwarded to the Minister of Health, District Health Boards and the Association of Salaried Medical Specialists by 31 March 2009

3 INTRODUCTION: RISING COSTS AND GLOBAL COMPETITION

3.1 Internationally, health policy-makers in recent years have been under enormous pressure over concerns about cost-containment and financial sustainability of their health systems. The rising costs of health care have often been portrayed as a drain on economies. However, a growing body of new evidence (referred to in Chapter 5) shows that investment in health services is important for economic growth as well as for improving health and social well-being.

3.2 Some countries appear to have recognised this more than others, not least in the relative importance they have attached to investing in their medical specialist workforces.

3.3 Global competition for specialists is gaining momentum as many countries develop their health services to meet the needs of their ageing populations. The competition has become all the more intense because specialists in many areas are in short supply. Countries such as Australia, Canada and the United Kingdom have responded with policies including significant pay increases, aimed at retaining specialists and attracting others from overseas.

3.4 New Zealand's starting position in what is essentially a contest of recruitment and retention presents us with more daunting challenges than those of our rivals. This is especially the case when we look at our nearest neighbour, Australia, which each year attracts an estimated 280 New Zealand doctors, including specialists. According to the Organisation for Economic Cooperation and Development, we have the second highest emigration rate of doctors in the OECD, the highest dependency on overseas-trained specialists, and the lowest-equal number of specialists per head of population. Preliminary reports on specialist vacancies indicate New Zealand's rates are far higher than those in other comparable countries (see Chapters Seven and Eight).

3.5 Lack of available data appears to have proved a challenge for all studies of the New Zealand medical workforce over recent years and that has been no less so with this paper, which is also limited by the paucity of data for the specialist workforce in particular. This paper has attempted to overcome these limitations by obtaining new workforce information from vacancy studies undertaken in certain DHBs, by obtaining new, previously unpublished data from the Medical Council of New Zealand, District Health Boards New Zealand (DHBNZ) and the medical colleges, and by drawing extensively on studies and reports of specialist workforces in comparable overseas health systems.

3.6 New Zealand's situation has been described as "a leaking bucket".[11] It is a combination of circumstances that has led OECD researchers to comment "maybe more than any other OECD country, the health workforce in New Zealand cannot be considered without taking into account its international dimension".

3.7 This paper examines that international dimension, including issues of health funding (Chapter Five), our current and future health needs (Chapter Six), and the key factors concerning the demand and supply of specialists in New Zealand (Chapters Seven, Eight and Nine). The findings indicate that the "potential vulnerability" of New Zealand's specialist workforce has become a real and present vulnerability. The findings also support the descriptions of "crisis" – "An unstable or crucial time or state of affairs in which a decisive change is impending; especially one with the distinct possibility of a highly undesirable outcome."

[11] New Zealand Institute of Economic Research (NZIER) 2004. *Ageing New Zealand Health and Disability Services: Demand projections and workforce implications, 2002 – 202*1

3.8 The paper then goes on to examine the nature of the particular problems posed by recent changes in the terms and conditions of Australian senior doctors and the apparent solution found to a similar big country/ small country dynamic in Canada (Chapters Ten and Eleven).

3.9 New Zealand's inability to adequately retain the specialists it trains, to recruit specialists, and to retain the specialists it recruits has created an unstable workforce that is under increasing stress. Specialists across the country have given a clear message that the workforce is in a fragile state. The specialist workforce is unable to cope with increasing demands and this is already leading to less than optimal outcomes.

3.10 Following our conclusion (Chapter Twelve) the Association then proposes solutions (Chapter Thirteen). Urgent and decisive action is needed to ensure New Zealand is able to recruit and retain an adequate supply of specialists to meet today's health needs as well as tomorrow's.

3.11 Annex 2 shows the results of nine vacancy surveys done by the Association in an attempt to supplement vacancy data available from DHBs. Personal letters from some clinical directors and other senior doctors are appended to this paper as Annex 1. For all these doctors shortages of specialists are not a "workforce problem" but part of a daily struggle to offer safe care to sick New Zealanders without adequate resources.

4 WHAT IS SUSTAINABILITY?

4.1 The way in which sustainability is interpreted determines the response. Sustainability from a Treasury viewpoint, for example, is often closely aligned to "affordability".

4.2 The Australian Medical Workforce Advisory Committee describes a sustainable medical specialist service as:[12]

> *A service that is clinically appropriate and adaptable to the needs and expectations of the local community, provided on a regular basis, and well integrated with local primary care services. Essential to the provision of a sustainable service is the ability to recruit and retain specialists in areas as required.*
>
> *…An acceptable specialist service is a service that provides both the type and standard of care acceptable to the relevant specialist medical College*
>
> Sustainable Specialist Services, 2004.

4.3 The Royal Commission on the Future of Health Care in Canada answered:[13]

> *In some ways, the word "sustainability" both illuminates and obscures the debate. It is a word that is immediately understandable and yet open to multiple interpretations and misinterpretations. Moreover, much of the recent debate on health care has focused on one aspect only – namely costs. People conclude that the system is not sustainable because it costs too much money, it takes too large a proportion of governments' budgets, or it is an impediment to lowering taxes. There are others who argue that the problem with the system is the way it is organised and the inefficiencies that result. Reorganise the system, they argue, and there is more than enough money to meet our needs. Still other voices have argued that the only problem with the system is the lack of money provided in recent years. Restore and increase the financial resources, they argue, and all will be well.*
>
> *In the Commission's view, this narrow focus on money is inadequate and does not help inform the debates or enable an overall assessment of whether or not Canada's health care system is sustainable. Instead, the Commission takes the view that:*
>
> **Sustainability means ensuring that sufficient resources are available over the long term to provide timely access to quality services that address Canadians' evolving health needs.**
>
> Building on Values, 2002

4.4 This interpretation of sustainability appears consistent with the principles underpinning the Government's New Zealand Health Strategy:

- *Acknowledgement of the special relationship between Māori and the Crown under the Treaty of Waitangi.*
- *Good health and wellbeing for all New Zealanders throughout their lives. An improvement in health status of those currently disadvantaged.*
- *Collaborative health promotion and disease and injury prevention by all sectors.*
- *Timely and equitable access for all New Zealanders to a comprehensive range of health and disability services, regardless of ability to pay.*
- *A high-performing system in which people have confidence.*
- *Active involvement of consumers and communities at all levels.*

[12] Australian Medical Workforce Advisory Committee 2004. *Sustainable Specialist Services: A Compendium of Requirements.* Available at www.nhwt.gov.au/publications.asp

[13] RJ Romanow. *Building on Values: The Future of Health Care In Canada*. The Royal Commission on the Future of Health Care in Canada 2002. Available at: www.hc-sc.gc.ca/hcs-sss/alt_formats/hpb-dgps/pdf/hhr/romanow-eng.pdf

4.5 The explanatory notes to the penultimate principle above suggest it includes a financial as well as a service dimension:

> *Principle: A high-performing system in which people have confidence. ("This principle reflects the fact that the health sector must continue to perform to the highest standards and reflect the needs of the people of New Zealand within available resources.")*

4.6 A paper produced for DHBNZ by the New Zealand Institute of Economic Research has a similar view:

> *"…the ultimate objective of health workforce development is to find the best way to meet the healthcare needs and preferences of their populations, given budget constraints."*
>
> NZIER 2002. DHBs and Health Workforce Development: Context and strategic directions for DHBs. Unpublished discussion paper prepared for DHBNZ

4.7 The last two interpretations raise a question as to how decisions are made to ensure that the "available resources" and the "budget constraints" are set at a level to realistically enable the objectives to be met. Should the terms and conditions recommended by the SMO Commission exceed DHBs' current funding allocations then the responsibility for addressing this rests with government.

4.8 The Canadian Commission describes three key elements – needs, services and resources – that must be balanced to achieve sustainability.

> *Decisions about providing adequate resources imply that there is political support by governments and by Canadians to continue supporting the system through public funds and public oversight. Maintaining the balance is, in fact, a deliberate act of will on the part of society and, thus, it is the overall governance of the system at all levels that ultimately decides how these elements are balanced.*
>
> Building on Values, 2002

4.9 These observations are reflected in part in a further interpretation of sustainability, this coming from the perspective of a DHB chair:

> *Health sustainability is the enduring capacity for DHBs to ensure provision of quality, affordable, accessible and appropriate health care inter-generationally to all our population.*
>
> *Such a level of sustainability would assume:*
>
> - *We agree as a people what the nation can afford relative to every thing else the state provides*
> - *We agree that as DHBs we will live within our means*
>
> P. Snedden 2002. Presentation given at the Workforce Sustainability Conference, 2006, Manukau City. Available at www.cmdhb.org.nz

4.10 Considering all of the above, a reasonable, interpretation of "sustainability" would be:

Sustainability means ensuring that sufficient resources, as determined by New Zealanders, are available to provide timely access to quality services that address New Zealanders' evolving health needs, and that those resources are efficiently managed.

4.11 This interpretation addresses the question about resource decisions. It implies greater government responsiveness to New Zealanders' needs and expressed wishes (ie, to ensure there is "A high performing system in which people have confidence") and greater openness about how resource decisions are made to achieve the stated objectives.

4.12 Sustainability in relation to terms and conditions of employment for health professionals in the public sector should be consistent with the above.

4.13 Decisions on setting resource limits for health services are discussed further in the following chapter.

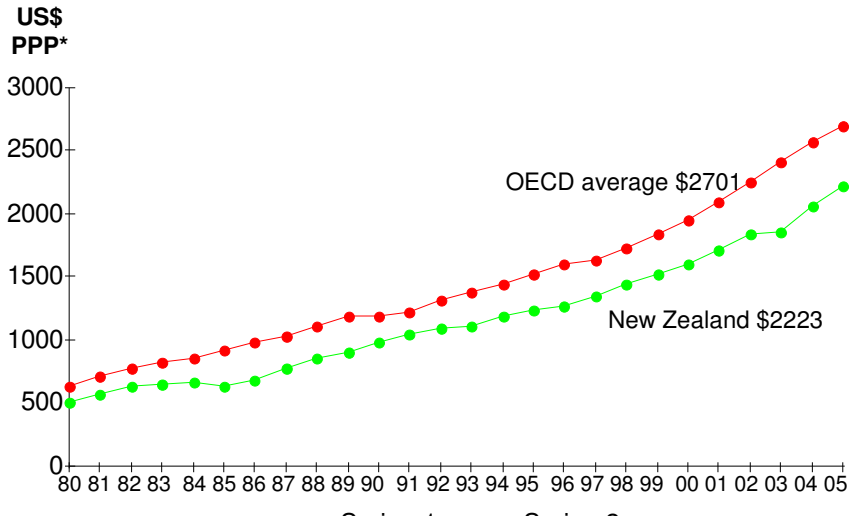
5 HEALTH FUNDING AND EXPENDITURE

5.1 Vote Health's annual operating expenditure (departmental and non-departmental operating total outputs) increased from $7.008 billion in 2000/01 to 11.065 billion in 2007/08 – an increase of $4.057 billion.

5.2 However, around half of that $4 billion is accounted for in adjustments for inflation and population increases.[14] An estimated $835 million was spent on Primary Health Care Strategy initiatives in 2007/08, largely to reduce user charges. Mental health services account for around $400 million over what was spent in 2000/01; aged care and disability support services total around $300 million of additional funding; and public health has been boosted by almost $300 million. Much of the remainder is additional money tagged for specific programmes, such as for elective surgery, problem gambling, the meningococcal vaccine programme, additional pharmaceuticals, and a number of other new initiatives. Aside from the specifically targeted programmes, hospital-based services in general have seen little if any increases in funding, over and above the population and inflation adjustments.[15]

5.3 Despite the general increases in health and disability support services funding, Figure 1 shows New Zealand has had a modest level of health spending on an international scale.

Figure 1 Health Expenditure per Capita in New Zealand and OECD Countries, 1980-2005



Source: OECD Health Data 2007
* Purchasing Power Parity equalises the purchasing power of different currencies, taking into account the relative cost of living and inflation rates in different countries.

[14] A total of $1.9 billion is identified as demographic and inflation adjustments in Vote Health Estimates and Appropriations for 2000/01 to 2007/08 and from data in *Allocation of the 2002-05 Health Funding Package*, Office of the Auditor-General, October 2006. Inflation adjustments are not specifically identified in 2000/01 and 2001/02, but a further $0.2 billion is identified as funding to "maintain existing services and implement service improvements" over those two years. No adjustment for demographic changes was specifically identified in 2001/02.

[15] Expenditure for Primary Health Care Strategy initiatives is provided in *Ministry of Health: Monitoring the Progress of the Primary Health Care Strategy*, Office of the Auditor General, October 2008. Additional spending for mental health is estimated from Vote Health and Ministry of Health data. Additional expenditure for disability support and aged care services is estimated from Vote Health Budget documents 2000/01 to 2007/08.

5.4 Of 30 OECD countries, New Zealand's total (public and private) health expenditure per capita ranked 16th ($US PPP, using 2005 figures), while Australia ranked 11th, Canada 8th and the United Kingdom 14th.[16]

5.5 New Zealand ranked 11th among OECD countries in 2005 when its total health expenditure was measured as a proportion of GDP. However, it is a measure that the Ministry of Health says "should be used with caution", as "there is no 'right' or 'wrong' proportion of a country's GDP to be spent on health".[17] This is reinforced in a WHO paper assessing the case for investing in health systems:

> *Cross-country comparisons … cannot determine what is right but rather simply what is commonplace. Moreover, share of GDP is a relative measure against an economic level and cannot define the optimum level of spending either in macroeconomic terms or in terms of societal priorities. Arguably, therefore, under certain economic circumstances it may be more appropriate to focus on economic growth than on the share of resources to be devoted to health. Cost effective investment in health, which will ensure a healthy and therefore competitive labour force, then becomes part of a strategy to build up the economy and not become a drain on it.*[18]
>
> J Figueras et al, WHO 2008.

DHB Funding

5.6 DHBs are funded via a population-based funding formula (PBFF), which is generally regarded as more equitable than the previous regime of funding via contracts. However, many DHBs are at different stages of population-based funding and have different levels of ability to pay nationally agreed industrial settlements. Some DHBs are also in different financial positions for a variety of reasons, including issues relating to size and growth and the DHB's efficiency.

5.7 In 2002/03 the "Future Funding Track" (FFT) was introduced in an attempt to enable the Ministry of Health to manage the increased costs associated with inflation, including labour costs. The FFT comprises 35% forecast Consumer Price Index (CPI) and 65% Labour Cost Index (LCI). A further 0.5% of eligible baseline funding is added for new technology costs, but from 2006/07 that 0.5% has been subtracted as a lever for gaining efficiency. For 2007/08 only, the efficiency adjustor was set to 0%. It is for DHBs to decide how to apply the FFT.[19]

5.8 DHBs have had a very clear message that the Government expects them to live within their budgets and that the Minister would accept "no excuses for over-spending".[20] However, some DHB managers consider the expectations to be unrealistic, given the level of funding and the fact that many of the cost pressures (such as the cost of pharmaceuticals, blood products and equipment) are out of the DHBs' control.[21] Furthermore, DHBs report that the past and projected FFT does not cover actual inflation.[22] [23] Counties Manukau DHB has estimated the cumulative impact of this for the three years 2005-2007 has been a funding shortfall of more than $27 million for that DHB alone. It has estimated a further annual funding shortfall of more than $8 million on average for population growth.

5.9 The gap between DHB wage settlements and what the DHBs receive through the FFT is creating greater pressures on the DHBs to maintain services:

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[16] Ministry of Health 2008. *Health Expenditure Trends in New Zealand 1996-2006*. Available at: www.moh.govt.nz

[17] ibid

[18] J Figueras, M McKee, et al, 2008. *Health Systems, Health and Wealth: Assessing the Case for Investing in Health Systems.* WHO 2008.

[19] Association of Salaried Medical Specialists. Available at: http://www.asms.org.nz/SITE_Default/SITE_Stopwork_Meetings/MECA_Q_A.asp#0-15

[20] T Ashton. Health Reforms 2001 Research Project. *Paper No 4.* Health Services Research Centre, Victoria University, Wellington (2007)

[21] G Davies, S Bradley, *Letter to Director-General of Health,* Canterbury District Health Board (12 Sept 2007). Available at: www.cdhb.govt.nz/communications/media/2007/nursesandmidwives.pdf

[22] ibid

[23] Counties Manukau DHB *Distract Annual Plan 2008/09*.

The forecast financial position, both for the current and outer years of the DAP, has the potential to severely limit CMDHB's ability to continue to invest in, and to achieve many of, its objectives. These severe funding constraints are of critical concern, as many of the existing and new objectives and initiatives will be placed at risk as a result. Many of these are essential to the long-term sustainability of the organisation. This becomes a difficult balancing act as the focus moves to ensuring financial stability and away from enhancing the District Strategic Plan objectives and clinical and quality imperatives. …Also to be considered are the huge clinical pressures already on CMDHB, staff are severely stretched resulting in increasing clinical risk.

Counties Manukau DAP 2008/09

It appears that, on current information, the full cost of most of the MECAs will be 2% ahead of FFT. This is approximately a $20 million unfunded cost to Auckland DHB. Every effort is being made to offset this with procurement gains, but this has to be in the context that our direct treatment costs are in total $120 million and a 10% saving is not practical.

Auckland DAP 2008/09

Ultimately, the DHB may need to reduce services so that it can operate within the funding received.

Canterbury DAP 2008/09

5.10 The Treasury, in its Statement of Fiscal Risks, reported that nine DHBs (Hawkes Bay, Auckland, Counties Manukau, Whanganui, West Coast, Southland, Otago, Tairawhiti and Capital and Coast) were indicating projected operating deficits in 2008/09. "Cost containment strategies" were set in place to ensure these DHBs balanced their books. Nevertheless, some DHBs, including Otago, and Southland, were unable to meet the required fiscally break-even District Annual Plans for 2008/09.

5.11 Providing health services is labour-intensive: up to 70% of operational funding pays for wages.[24] Plans to keep funding below inflation rates therefore impact mainly on wage rates and working conditions. This puts various parts of the health sector workforce in an invidious position where a bid to improve their pay and conditions may come at the expense of other workers in the sector, or even the availability of some services, as indicated above. On the other hand, the quality and future of some services is jeopardised if services cannot keep or attract staff.

5.12 Funding pressures have been a key factor in the increased number of industrial disputes in the health sector over recent years.

5.13 An unusually candid letter from the Canterbury DHB to the Director-General of Health, made public by the DHB, reflects the "between a rock and a hard place" position of the boards, and suggested some government actions to develop fairer and more sustainable approaches to industrial settlements in the future.[25]

5.14 The proposals included:

That work is undertaken immediately to revise the FFT to a more sustainable level, including consideration of funding a margin above the CPI (eg New South Wales uses the CPI plus 2%).

Centralising the employment relations function so that it is "overseen closer to Government and aligned with health-economic-workforce objectives based on long-term goals – not short-term FFT calculation for DHBs."

The importance of the size of this workforce, its need in a vital service makes it too important to leave uncoordinated and remote from Government's direct influence and input. Corrections, CYPS, Teachers, Police, Fire all have central features. The Health workforce needs similar direct oversight.

Canterbury DHB letter, page 15

[24] District Health Board NZ. Available at: www.dhbnz.org.nz/Site/Future_Workforce/HWIP/Default.aspx

[25] G Davies, S Bradley, *Letter to Director-General of Health,* Canterbury District Health Board (12 Sept 2007). Available at: www.cdhb.govt.nz/communications/media/2007/nursesandmidwives.pdf

5.15 Industrial settlements are under the aegis of direct Ministry input and the financial effects provisioned for the out years.

5.16 The Canterbury DHB's reason for concern at the level of the FFT (a concern reflected in the annual district plans of other DHBs) is supported by population and inflation figures that indicate an estimated 25% increase in prices (CPI movements) and a 10.7% increase in population between 2000 and 2008.[26] This suggests total adjustments for inflation and population increases over that period should have been close to $2.5 billion – substantially more than identified in Budget documents, as indicated earlier.

Productivity

5.17 An argument sometimes used against funding increases is that relative productivity in the sector (value for money) has dropped. Several attempts at measuring productivity trends have suggested a drop in productivity in recent years, but these reports raise more questions than they answer. A Treasury report[27] says productivity "would appear to have fallen", but concedes its calculations are based on only 20%-25% of DHB activity and that it relies on simplistic measures of inputs and outputs, with the latter restricted to hospital discharges. Similarly, initial measurements by the Ministry of Health cover only 27% of DHB provider costs.[28]

5.18 Innovative initiatives where, for example, hospital specialists work alongside GPs to support them in reducing hospital admissions and enabling more timely treatment of patients can end up being measured as a reduction of productivity. Perversely, mortality rates in hospitals, especially when soon after admission, increase productivity.

5.19 The Ministry's 'bottom up' analysis of productivity suggest that DHBs (such as Nelson Marlborough) with a greater proportion of senior doctors and senior nurses compared to junior doctors and nurses are more efficient. As with any apprenticeship model, training will be a cost.

5.20 Both Treasury and the Ministry accept that there may have been improvements in other unmeasured activities, the quality of services, and patients' health outcomes. The Treasury report concludes that "available data does not enable robust conclusions about trends in DHB hospital or sector productivity to be drawn".

5.21 A brief analysis produced by the Business Roundtable[29] attempts to measure productivity more broadly but again relies on simplistic and sometimes unreliable measures of activity. It comments that "this is not the place to draw strong policy conclusions". The purpose of the paper was to "stimulate research and discussion".

5.22 On the other side of the productivity ledger are reports of substantially increased health service activity. For example:

> *It would be fair to say that the recent gains in Auckland DHB have, along with pricing gains, come from improvements in productivity with the growing volumes contracted being produced with a less than proportionate increase in staff numbers… Auckland DHB, through volume growth, has achieved productivity gains of 1% per annum. Without revenue growth, the trend can easily swing to a loss of productivity.*
>
> Auckland DAP 2008/09
>
> *In 2006/07 there were approximately 65,900 inpatient and day case medical and surgical discharges from DHB hospitals. This represents an increase of 14% over the last five years. The*

[26] Statistics New Zealand 2008.

[27] *Treasury Report: Value for Money in Health* – The DHB Sector, February 2005. Available at: www.treasury.govt.nz.

[28] Ministry of Health 2007. *Productivity and efficiency in the delivery of public hospital services in New Zealand*, Ministry of Health, Wellington, June 2007.

[29] Maniparathy. M. *Productivity Performance of New Zealand Public Hospitals*. NZ Business Roundtable, October 2008.

number of discharges for acute services has increased by 16% over the last five years representing a significantly faster growth than the population.

Christchurch DAP 2008/09

ED presentations have grown by an estimated 20% in the past five years. This is well in excess of population growth.

Minister of Health, November 2008[30]

5.23 Increased activity, and activity that has not been recognised, have been identified in senior medical officer job sizing reviews, which have led to increased staffing or remuneration –and which in turn, ironically, may be measured as a decrease in productivity.

5.24 Continual improvement in the efficiency and effectiveness of our health services is clearly important, especially given the increasing health demands we face. A vital part of that ongoing process is to develop better ways of measuring efficiency and effectiveness. Poor measurement tools can lead to poor policy decisions and, in turn, less efficiency.

5.25 The Ministry of Health paper and a further Treasury paper[31] draw attention to work in Britain to improve health productivity measurements, which shows that when quality factors are taken into account, including survival rates, measured increases in patients' health due to intervention, life expectancy, and so on, "The new adjustments changed the productivity growth rate from negative to positive."

5.26 The Ministry of Health says, "Economists have recognised the need to adjust productivity measures for improvements in the value of what is produced…Ideally output measurement should reflect the value of health instead of the activity itself."

5.27 A WHO paper, making a similar point, refers to "clear evidence that improvements in access to effective health services [including primary and hospital care] have made a substantial contribution to changing life expectancy between birth and age 75 since the 1980s in most countries. The largest contribution was from falling infant mortality [in which New Zealand rates poorly – see Table 1] but there have also been improvements among the middle-aged…"[32]

5.28 Good health, in turn, has a significant impact on a country's economic productivity:

People in poor health are less likely to work and, when in work, are less productive. They are less likely to invest in their own education or to save for retirement, and so to support the wider economy. The economic position of countries today owes much to the extent to which they were able to achieve better health historically.

Figueras et al, WHO 2008

The most important, if general, policy implication of the evidence … is that policy-makers interested in improving economic outcomes would have good reasons to consider health investment as one of their options by which to meet their economic objectives.

Suhrcke et al, European Commission 2005[33]

[30] T Ryall, Speech to Australasian College for Emergency Medicine Conference, 24 November 2008.

[31] Treasury 2006. *Measurement of Public Sector Output and Productivity: Adjusting for Quality*. Available at: www.govt.nz/publications/research-policy/ppp/2006/06-09/07.htm

[32] J Figueras, M McKee, et al, 2008. *Health Systems, Health and Wealth: Assessing the Case for Investing in Health Systems.* WHO 2008.

[33] M Suhrcke et al, 2005. *The Contribution of Health to the Economy in the European Union*, European Commission, European Communities Aug 2005.

Cost of Unmet Need

5.29 Aside from the personal physical and social costs associated with unmet health needs, the scale of the hidden economic cost was indicated in a recent Canadian study concerning patients waiting for treatment longer than medically recommended in four priority areas – orthopaedics, ophthalmology, cardiology and diagnostic procedures.[34]

5.30 The study used three measures for estimating costs:

(a) The impact from reduced economic activity as a result of patients being unable to participate in the labour force.

(b) The impact of reduced economic activity as a result of caregivers giving up work to care for family members or relatives.

(c) The additional costs borne by the health system, including the cost of additional patient visits while waiting for treatment (adding to the service workload) and the cost of medication resulting from extended waits.

The total estimated cost across the four priority areas in 2007 was $14.8 billion. But:

The true cost of wait lists in the health care system is clearly much higher because this analysis only accounts for a small proportion of the diseases for which patients are waiting for treatment and excludes several parts of the wait time process…

The Economic Cost of Wait Times in Canada, 2008

5.31 With the increasing need for health services to become more cost-effective, the costs of delaying access to treatment, or not providing treatment, need to be factored into health service funding and resource decisions in the future. The key question is not so much "Can we afford to provide this health service?" as "Can we afford not to provide this health service?"

Public Opinion

5.32 The public's continuing desire to see more funding injected into health services in order to achieve sustainability has been signalled in surveys such as that undertaken by Massey University in 2005 which indicated 87% of New Zealanders would be willing to pay more tax in order for the government to invest more in health.[35] This was reinforced recently when a Fairfax-Nielsen poll, released in November 2007, showed only 25% of people wanted tax cuts. The majority, 58%, said they would rather see more money invested in public services, with health and education the most preferred areas for more funding.[36] A further survey, in April 2008, shows 61% of people would oppose tax cuts if spending in areas such as health and education were cut.[37]

Summary

5.33 New Zealand has had for many years a modest level of funding on an international scale.

5.34 Real health funding increases over recent years have not flowed through to many hospital-based services.

[34] Centre for Spatial Economics 2008. The Economic Cost of Wait Times in Canada, Canadian Medical Association 2008. Available at: www.cma.ca

[35] S Casswell, E Rose and J Huakau. (2005) *Taxation: A Report from the Economic Values Part of the New Zealand Values Study 2005*. Centre for Social and Health Outcomes Research and Evaluation & Te Ropu Whariki,

[36] T Watkins, "More spending, not tax cuts", *Dominion*, 17 November 2007

[37] ShapeNZ 2008. *Personal Tax Cuts Survey Results, April 2008*, NZ Business Council for Sustainable Development, Wellington.

5.35 DHBs have reported that funding (the "Future Funding Track") to cover the costs of inflation, including labour costs, has not actually kept pace with inflation, leading to increased pressures on current resources.

5.36 Continual improvement in the efficiency and effectiveness of our health services is vital, given the increasing health demands we face. An important part of that ongoing process is to develop better ways of measuring "productivity", recognising the value of producing good health outcomes.

5.37 Health spending should be seen as part of the essential investment in New Zealand's economy and New Zealanders' well being.

5.38 Health funding decisions need to take account of the substantial but so far largely unmeasured costs of unmet health needs.

5.39 The New Zealand public has consistently indicated a desire to see the public health system adequately funded to meet New Zealanders' needs.

6 CURRENT AND FUTURE HEALTH NEEDS

Current Health Needs

6.1 Measuring health need is complicated by the fact that health is influenced by a number of factors, including social, environmental, economic and lifestyle factors, as well as the effectiveness of the health system. For that reason it is difficult to accurately assess the full extent to which our health services are making a difference in our overall health status. Nevertheless, a number of "headline indicators" – some directly related to services, such as measures of elective surgery discharges, radiotherapy waiting times, and ambulatory-sensitive hospital admissions, and others measuring higher-level trends, such as life expectancy, premature mortality and health disparities – together produce a broad range of pointers that help determine the health system's responsiveness to meeting New Zealand's health needs.

6.2 Performance indicators published in the Ministry of Health's Health and Independence Reports 2007 and 2008[38] show continuing progress in a number of areas, such as life expectancy, infant mortality, quality of hospital services and reduction of mortality rates for cardiovascular disease. The five-year survival rate for cancer continues to improve, and more resources are being directed to detecting and treating people with chronic disease.

6.3 Many indicators, however, give a mixed assessment, which in some cases reflect long-standing shortcomings that can only be addressed over time. For example:

(a) The gaps between European and non-European groups in measures such as life expectancy and morbidity and mortality rates are closing. But there remain many disparities in health outcomes for Māori and Pacific peoples compared to the total population, and the New Zealand Health Survey 2007[39] indicated those gaps also existed more generally for children and adults living in poorer neighbourhoods.

(b) There are signs that mental health services are becoming more responsive to need. But the Mental Health "Blueprint" staffing targets have yet to be achieved, with 82% met. Staffing targets for specialist services are only 44% met, and access rates to secondary mental health services remain well below the estimated prevalence of mental health need.

(c) Patient charges for primary heath care have halved over the past seven years[40] but costs remain a barrier for a significant minority. High needs' groups (ie people living in deprived areas, Maori and Pacifica) are under-utilising services, and the overall number of ambulatory-sensitive hospital admissions (admissions that might have been prevented if services had been delivered effectively in the community) has remained virtually the same since 2000/01 – with wide variation between DHBs.

(d) While emergency department triage times have improved slightly, only one of the three targets is being met.

(e) The targets for cervical screening are being met for European women, but coverage falls significantly short of the target for Maori, Pacific and Asian women; and while there has been a slight improvement in breast screening coverage, no groups are meeting the target.

[38] Ministry of Health 2008. *Health and Independence Report 2007* and *Health and Independence Report 2008.* Available at www.moh.govt.nz

[39] Ministry of Health 2008. *New Zealand Health Survey 2006/07*. Available at www.moh.govt.nz.

[40] Hon Pete Hodgson 2007. "Lower fees to see the doctor". Media release, 27 August 2007.

(f) 97% of cancer patients with a priority C category waited less than eight weeks for radiotherapy, thereby meeting the target for that category. However, this eight-week target is twice as long a waiting time as that of the previously accepted target that existed only a few years ago.[41]

(g) Elective surgery case-weighted discharges increased by 12.6% between 2001/02 and 2006/07, which is an indicator of more complex operations being performed, but the actual number of operations per head decreased.

6.4 Expanding on the latter: As at March 2008, just under 40,000 were listed in the surgical booking system[42]. But, an unknown number of people waiting for assessment or treatment have been removed from the system to the care of their GPs. One estimate put this number as more than 35,000 over a one-year period.[43] A recent paper published in the *New Zealand Medical Journal* estimated the unmet need for surgery across all specialties could be as high as 26% of the present volume of surgery.[44]

6.5 The Government's objectives in addressing unmet needs have primarily been in the context of reducing health disparities, particularly with regard to Maori, Pacifica and lower socio-economic groups, and in achieving equity of access to services across DHBs nationally. As such, the objectives have not necessarily been to eliminate unmet need so much as to equalise it.

6.6 However, over the past four years health ministers have indicated a greater intent, initially concerning targeted services, such as the decision in 2004 to provide extra funding to double the number of hip and knee operations performed each year by 2008, and extra funding announced in 2005 to enable a 50% increase in cataract surgery procedures.

> *This [joint replacement] initiative was based on the collection of good data, allowing a comparison of our intervention rates with overseas rates. It is also premised on the ageing of the population and therefore on the increasing need for such interventions…We are now using a similar process in terms of cataract operations, looking at disparities in access, the level of unmet need, the impact on people of having to wait, and workforce issues…*
>
> Minister of Health 2004[45]

6.7 In October 2007 Health Minister Pete Hodgson made a renewed assault on waiting times by pumping an extra $200m into elective surgery over four years, with the aim of lifting elective surgery volumes by 10% or 10,000 operations a year (which has become the Ministry of Health's annual national target for DHBs).[46] He was reported saying it was not good enough for people to be waiting long periods without being seen, or being returned to their GPs without being seen at all. And he set himself an ambitious target: "My hope is that that era is now drawing to a close."[47]

6.8 However, DHBs have not been able to make full use of the additional funding. In May 2008 Health Minister David Cunliffe reported that about a third of DHBs did not complete their elective quotas in

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[41] Ministry of Health 2001. *Improving Non-Surgical Cancer Treatment in New Zealand*. Available at www.moh.govt.nz/cancerwaitingtimes

[42] Written Parliamentary Question No 3693 (2008). Hansard 2008, Wellington.

[43] M Johnston. "Hospitals cull waiting lists by thousands", *NZ Herald*, 29 January 2007.

[44] A Raymont, J Simpson. "Projections of surgical need in New Zealand: estimates of the need for surgery and surgeons to 2026". *NZMJ*, 6 June 2008. Vol 121 No 1275.

[45] Hon Annette King, Address to the 5th International Conference on Disparities in Health Care, Wellington November 2004. Available: http://www.labour.org.nz/our_mps/annette_king/speeches_page_4/04112004_fifth_international_conference_on_priorities_in_he_annette_king.html

[46] Ministry of Health 2007, *Statement of Intent 2007-2010*. Ministry of Health, Wellington

[47] R Laugesen. "Healing the system: the future of public health," *Sunday Star Times*, 17 February 2008. Available at: www.stuff.co.nz/sundaystartimes/4134549a26503.html

2006/07, and noted that some DHBs were citing capacity constraints as a reason for limiting elective services.[48]

6.9 One such example had been reported a few weeks earlier when Dunedin Hospital dropped patients off its orthopaedic surgery list because of staff shortages, including a shortfall of six anaesthetists. The hospital also reported it would fall short of its planned cataract operations because "The eye service has fewer than half the specialists it should have."[49]

6.10 Only nine of the 21 DHBs achieved their elective surgery volume targets for the 2007/08 financial year. The Ministry of Health reported: "Delays in coding some discharges and capacity constraints in some DHBs continue to affect the results."[50]

International Comparisons

6.11 OECD indicators of member countries' health status are listed in Table 1. New Zealand's position relative to three countries with which we traditionally compare ourselves (Australia, Canada and the United Kingdom) is also provided.[51]

6.12 In 11 of the 17 indicators, New Zealand falls in the bottom half of OECD countries and we fall behind on most indicators in comparison with Australia, Canada and the United Kingdom,suggesting a relatively high health need.

6.13 Despite that, New Zealanders' perceived health status puts New Zealand above all other countries. However, the report cautions that the results from New Zealand, along with three other countries in the top five, are not directly comparable with those for other countries due to methodological differences in the survey questionnaire, giving an upward bias.[52]

6.14 The challenges in meeting our health needs will become even greater over the next 20 years as our population ages and as the incidence of chronic conditions associated with older people increases.

New Zealand's Future Health Needs

6.15 Statistics New Zealand's medium population projections indicate that the country's population as a whole will increase from 3,881,000 in 2001 to 4,856,000 in 2021 (an increase of 25%). The number of people aged 65 and over, however, is projected to increase from 461,000 to 820,000 (+78%). The share of the population comprising people aged 65 and over will increase over the same period from 12% to 17%.

6.16 The ageing of the non-European population will be even more marked. The combined populations of Maori, Pacifica and Asian peoples aged 65 and over will increase by approximately 260% between 2001 and 2021. More details are provided in Table 2.

[48] Hon David Cunliffe D, "Elective services – investing in the health of New Zealanders", address to the Elective Services Workshop, Wellington, May 2008. Available at: www.beehive.govt.nz.

[49] E Mclean, "Patients taken off surgery waiting lists," *Otago Daily Times*, 29 March 2008. www.odt.co.news/dunedin/2482/patients-taken-surgery-waiting-list.

[50] Ministry of Health 2008. *Quarterly Reports: Improving Elective Services Target*. Available at www.moh.govt.nz.

[51] OECD 2007. *Health at a Glance: OECD Indicators*. OECD Paris.

[52] The survey response scale used in New Zealand, Australia, Canada and the United States (all in the top five) is asymmetric (skewed on the positive side), including the following response categories: "excellent, very good, good, fair, poor, very poor". By contrast, in most other OECD countries the response scale is symmetric, with response categories being: "very good, good, fair, poor, very poor".

Table 1 New Zealand's Position in the OECD's International Health Status Indicators

Health Status Indicator	NZ's position out of 27 OECD countries (1st being the best indicator)	NZ's position relative to Australia, Canada and the United Kingdom
Life expectancy at birth	11th	3rd (above United Kingdom)
Life expectancy at age 65	11th	3rd (above United Kingdom)
Premature mortality	22nd (females) 18th (males)	4th 4th
Mortality from ischemic heart disease	24th (females) 23rd (males)	4th 4th
Mortality from stroke	20th (females) 13th (males)	4th 3rd (above United Kingdom)
Mortality from all cancers	24th (females) 15th (males)	4th 4th
Mortality from road accidents	20th	4th
Suicides	19th	4th
Infant mortality	21st	3rd= (with United Kingdom)
Infant health: Low birth weight	11th	2nd (below Canada)
Dental health among children	17th	3rd (Canada not included)
Perceived health status	1st	1st
Aids incidence	12th	1st

Source: OECD (2007)

Table 2 Projected New Zealand Population by Age Group and Ethnicity

	Numbers (000s)				65+ year olds as % of all ages
	Year	0-64 years	65+ years	All ages	
Maori	2001	567	20	587	3.4
	2006	599	26	625	4.2
	2011	643	32	675	4.7
	2021	718	54	772	7.0
Pacifica	2001	253	9	262	4.4
	2006	290	12	302	4.0
	2011	331	15	346	4.3
	2021	410	25	435	5.7
Asian	2001	261	11	272	4.0
	2006	386	19	405	4.7
	2011	469	29	498	5.8
	2021	628	65	693	9.4
European	2001	2,648	426	3,074	13.9
	2006	2,750	463	3,213	14.4
	2011	2,780	519	3,299	15.7
	2021	2,711	690	3,401	23.0

Note:
(a) Caution is needed when comparing estimates between 2001 and 2006 because of changes in questionnaire design, ethnicity classification and coding.
(b) People are included in all of the ethnic groups with which they identify, creating some double counting. Because of this, the estimates below are obtained from age-group data only. They do not represent the sum of the above figures.

All	2001	3,420	461	3,881	11.9
	2006	3,673	512	4,185	12.2
	2011	3,830	586	4,416	13.3
	2021	4,036	820	4,856	16.9

Source: Statistics New Zealand medium projections (Series 6) 2006 base

6.17 OECD data indicate that, in developed countries, per capita health expenditure on those aged 65 and over is typically three to five times that for the 15 to 64 age group.

6.18 New Zealand data indicate that older people are more likely to be admitted to hospital than the adult population as a whole. Registration rates for the main types of cancer are roughly 10 times as great for those aged 65 and over as they are for the 25-64 age group. Mortality rates for ischaemic heart disease and the main cancers are 12 to 22 times as great for older people as they are for younger adults.

6.19 Hospital statistics indicate older people accounted for just over a quarter of all discharges from acute and sub-acute care but that they accounted for just over half of all bed days.

6.20 Ministry of Health statistics show those aged 65 and over had higher rates for most chronic diseases compared to the comparison age group (50-64 years). That includes higher rates of all types of cardiovascular disease mortality and hospitalisation, as well as all types of cancer mortality, chronic obstructive pulmonary disease mortality and hospitalisation and higher prevalence of diabetes, arthritis and osteoporosis.

6.21 Hospitalisation and mortality rates for unintentional injury are significantly higher in older age groups, particularly among those aged 85+ years, compared with their counterparts aged 50–64 years.

6.22 The prevalence of disability is higher with increasing age. For moderate and severe levels of disability, older age groups have markedly higher rates than did their counterparts aged 45–64 years.

6.23 Older Maori had a worse health status than their non-Maori counterparts in a range of indicators, including higher hospitalisation and mortality rates for almost all types of cardiovascular disease, almost all types of cancer, and chronic obstructive pulmonary disease.[53] The prevalence of diabetes alone is predicted to grow by 132% among Maori and 148% among Pacific peoples between 2006 and 2021.[54]

6.24 Changes in trends in age-specific illnesses will have an impact on the demand for future health and disability services. It is not necessarily old age per se that results in increasing costs and demands, but the increased survival of people with poor health into old age. Increased demand for health services may relate to the growth of unhealthy lifestyles in Western countries.

6.25 Specific analysis of age-related diseases indicates that the New Zealand health sector can expect increased demand in the coming two decades from cardiovascular diseases, cancers, strokes, diabetes mellitus, chronic obstructive pulmonary diseases, osteoporotic fractures and musculoskeletal diseases.[55]

Summary

6.26 New Zealand has a relatively high health need, as measured by the OECD's key health status indicators.

6.27 New Zealand's health needs will increase as the population ages and becomes more ethnically diverse.

[53] Ministry of Health 2006. *Older People's Health Chartbook 2006*. Public health Intelligence Monitoring Report No 12. Available at: www.moh.govt.nz.

[54] National Health Committee 2007. *Meeting the Needs of people with Chronic Conditions*. National Advisory Committee on Health and Disability. Wellington.

[55] ibid

7 DEMAND FOR MEDICAL SPECIALISTS IN NEW ZEALAND

Workforce Characteristics

Characteristics of the medical specialist workforce

- Active medical specialists in 2007: 3359
- Proportion of total medical workforce: 34%
- Proportion of overseas-trained specialists: 40%
- Proportion of women: 25%
- Average age: 49
- Average hours per week: 48 hours (male), 41 hours (female) (2005)
- As well as clinical duties, specialists' non-clinical duties include administration, attendance at departmental meetings, formal teaching sessions, audit or other quality assurance activities and personal professional development, including research. In addition, specialists have a supervisory role over junior medical staff, including trainee specialists (registrars).
- It takes a minimum of 13 years to become a medical specialist. Once a doctor has attained vocational registration, he or she must follow a recertification programme defined by the relevant medical college to retain certification.

Notes:
Source of statistics: Medical Council of New Zealand Workforce Survey
Data are not benchmarked against DHB workforce data
Average hours are self-reported and include private and public employment

7.1 *Despite efforts in New Zealand and internationally, there is no accepted or established way of objectively measuring a nation's need for doctors. However, given the medical workforce information we do have, a co-ordinated and prompt response is clearly needed.*

Health Workforce Advisory Committee, May 2006.[56]

7.2 While arguably our health system is meeting the needs of most New Zealanders most of the time, the data outlined in the previous chapter suggest that the shortfall in meeting those needs is significant and is likely to become even more so in the future, unless some important issues are addressed in the health sector.

7.3 As stated earlier, health status indicators are influenced by a number of factors, including social, environmental, economic and lifestyle factors. The effectiveness of the health system is also a key factor, the importance of which has tended to be understated.

7.4 OECD research published in 2001 observed: "It has been part of the received wisdom - based partly on research published 20 or 30 years ago … that the marginal impact of health care on health is low in industrialised countries."

[56] Health Workforce Advisory Committee 2006. *Fit for Purpose and for Practice.* Advice to the Minister of Health on the issues concerning the medical workforce in New Zealand. Available at: www.hwac.govt.nz.

7.5 However, the research concluded that the number of doctors is the second most important variable (after occupation) in terms of explaining variations in premature mortality (deaths under the age of 70) across countries and over time. It also found that a 10% increase in the number of doctors, holding all other factors constant, would result in a reduction in premature mortality of almost 4% for women and about 3% for men.[57]

7.6 A Ministry of Health paper outlining some international responses to the increased demand for services for ageing populations highlighted four areas that will need to change if health systems are to cope with the increasing demand. They relate to a need for:[58]

(a) more practitioners to complement increasing population sizes

(b) more specialist services to deal with specific conditions associated with age

(c) more expertise in older people's health because of the prevalence of chronic and multiple conditions

(d) more support services for older people who often need assistance with daily living.

7.7 A paper commissioned by the Ministry of Health[59] to gauge the impact of population ageing on health and disability services and workforce implications called for forward planning to meet workforce shortfalls not only because of the increasing demand for services but also because the health workforce itself is ageing.

7.8 The paper, completed in 2003, also pointed out:

> *Countries like New Zealand face the additional challenge of retaining health care workers in the face of active recruitment from overseas. New Zealand is already experiencing difficulties in recruiting medical practitioners and training specialists in geriatric care, and if training programmes do not develop the skills needed to care for older people, then the health workforce is likely to face increased strain in delivering care as our population ages.*

7.9 A further Ministry-commissioned paper[60], produced by the New Zealand Institute for Economic Research (NZIER) in 2004, used three scenarios of future service demand to estimate that the ageing of the population would require a 40% to 69% increase in the number of registered health professionals between 2001 and 2021.[61]

7.10 That meant the demand for registered health professionals would grow by between 2.5 to 4.3 times the rate of increase of the population as a whole.

7.11 The report assumed the demand for labour would grow in line with projected service needs. That implied clinical and other technological advances that might otherwise be used to increase productivity would instead be used to intensify care or increase its quality.

7.12 The report also assumed, "favourably", that in 2001: "Current service and the current size of the workforce is an adequate basis on which to project future demands for services and labour." However, measures of health need and unmet health need, as discussed in the previous chapter, indicate service provision was inadequate; and measures of supply of specialists, as discussed later, indicate significant shortages across most specialties.

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[57] Z Or. *Exploring the effects of health care on mortality across OECD countries*: Labour Market and Social Policy – Occasional Papers No 46. OECD (2001).

[58] Ministry of Health 2004. *Ageing New Zealand and Health and Disability Services 2001-2021*. Available at www.moh.govt.nz.

[59] J Cornwall, J Davey. *Impact of Population Ageing in NZ on the Demand for Health and Disability Support Services, and Workforce Implications.* Background paper prepared for the Ministry of Health, December 2004. NZ Institute for Research on Ageing and the Health Services Research Centre. Victoria University, Wellington.

[60] NZIER 2004. *Ageing New Zealand Health and Disability Services: Demand projections and workforce implications, 2002 – 202*1.

[61] ibid.

7.13 The NZIER's calculations were based on Statistics New Zealand's medium population projections assuming low net migration (Series 4) from the 2001 census base, which indicated a total population of 4,505,000 by 2021. That amounted to a 16% increase between 2001 and 2021. The total number of people over 65 was projected to increase by 72%, but the percentage increase would be greater for older people in the Maori, Pacifica and Asian groups.

7.14 However, the 2006 census shows those figures to be under-estimates (eg NZIER's estimated population for 2011 was surpassed in 2008). Statistics New Zealand's latest medium population projections, assuming medium net migration (Series 6), using the 2006 census base, indicate a total population of 4,856,000 by 2021 (Table 2). That amounts to a 25% increase between 2001-2021.

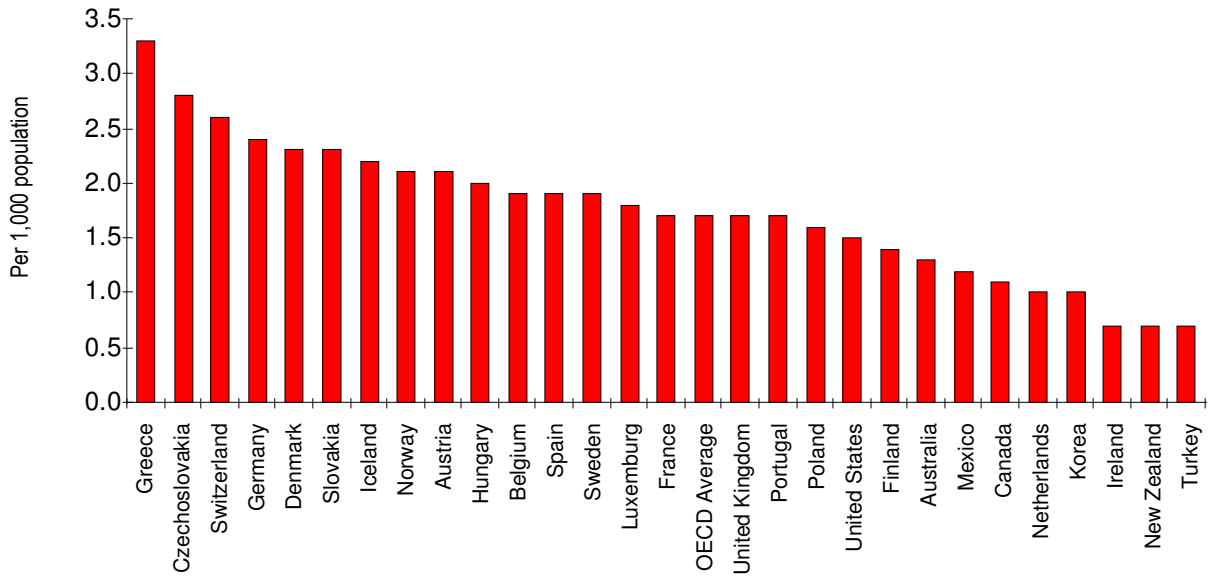
7.15 The total number of people 65 and over is now projected to increase by 78% over that 20-year period and, as with the earlier projections, the percentage increase will be greater for older people in the Maori, Pacifica and Asian groups. The proportion of older people in 2021, relative to the total population, is around 17% in both sets of data.

7.16 If the NZIER's calculation that the increase in the regulated health workforce remains around 2.5 to 4.3 times the rate of the increase of the general population, the number of medical specialists required under the three scenarios would now need to increase by approximately 63% to 108% between 2001 and 2021.

7.17 In 2001 there were 2725 medical specialists in New Zealand. By 2021 the national requirement would be approximately 4442 to 5668 medical specialists under NZIER's scenarios. Workforce shortages would nevertheless continue, however, due to the inadequate basis on which the projections were made.

7.18 To put this in another perspective, the adjusted NZIER projections would result in New Zealand having between 0.9 and 1.2 medical specialists per 1000 population in 2021. OECD statistics (for 2005 or latest year available) indicate New Zealand had 0.7 specialists per 1000 population, putting us at the bottom of the OECD table, equal with Turkey and Ireland. Canada had 1.1 specialists per 1000 population, Australia had 1.3 and the United Kingdom had 1.7 (see Fig 2). Given current international trends, the NZIER projections for 2021 would almost certainly leave New Zealand ranked among the bottom of the OECD countries.

Figure 2 Specialists per 1,000 Population, 2005 (or latest year available)

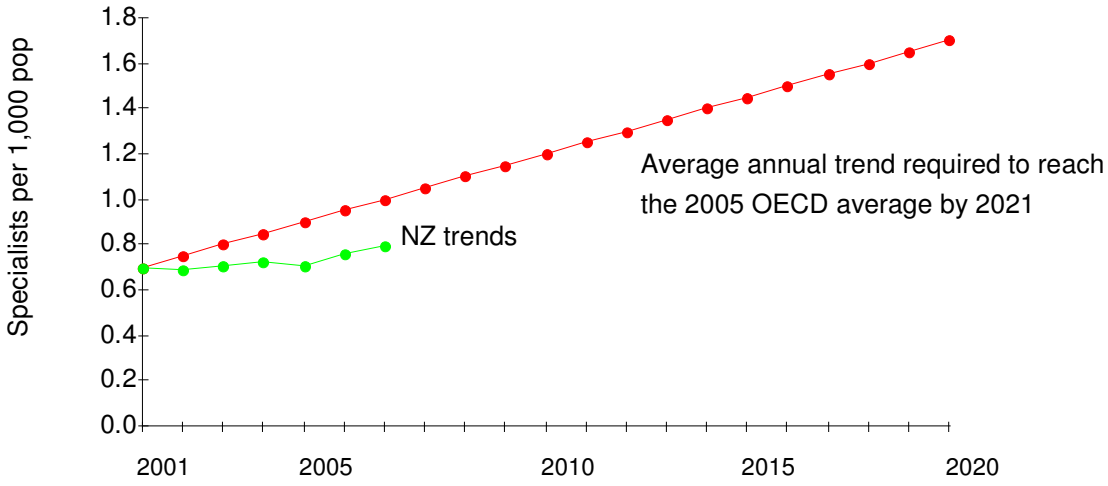


Source: OECD (2007)

7.19 Currently New Zealand, with 12% of its citizens aged 65 and over, has a relatively young population. The proportion of the population aged 65 and over has already reached at least 16% in 13 OECD countries and at least 17% (New Zealand's estimate for 2021) in seven countries.[62]

7.20 Of those 13 countries, the minimum number of specialists was 1.7 per 1000 population, which was also the average for 2005 across 29 OECD countries. For New Zealand to reach even that current level by 2021, an additional net annual average of 350 specialists would be required each year from 2007 (see Figure 3).

Figure 3 Current Trends in the Number of Active Medical Specialists in New Zealand against the Trends Required to Reach the 2005 OECD Average by 2021.



Source: Compiled by ASMS, based on OECD (2007), MCNZ (2007) and Statistic NZ population data

7.21 As well as health status and demographic trends, other influences on demand for medical specialists include rising public expectations, advances in technology, requirements to meet quality and safety standards, training requirements and government policy.

Rising Public Expectations

7.22 The literature shows that in many western countries health care users are becoming more vocal about the health services they expect to receive. Furthermore, information technology is likely to have a big impact on the level of knowledge that will be held and can be accessed by individuals, which may result in increased participation of patients in decisions pertaining to their care.

7.23 In the United Kingdom, a major review of the National Health Service[63] concluded that the future health service user is likely to be better educated, more informed, more affluent, time pressured, less deferential to authority and professionals, have more comparisons to apply to the health system, will want to have more control and exhibit greater choice, and will expect a more tailored health service.

7.24 This suggests that future older populations will demand higher levels of care for any given health need. In short, future patients will expect their health service to provide:

(a) a universal and fair service

(b) safe, high quality treatment

(c) fast access

[62] Austria, Belgium, Finland, France, Germany, Greece, Italy, Japan, Portugal, Spain, Sweden, Switzerland, UK. Source: *OECD Health Data 2007*.
[63] D Wanless. *Securing our future health: taking a long-term view.* Department of Health, 2002. London.

(d) an integrated, joined up system

(e) comfortable accommodation, and

(f) services designed around the individual's needs[64]

Technological Advances

7.25 The contribution of new technologies in improving health, and their costs and benefits, are issues of major importance in many countries. But technological innovation is, by its very nature, hard to predict because it involves the discovery of the previously unknown. There is no standardised measure of technological change by which it can be factored into health service projections.

7.26 Technological change could potentially reduce demand for health services and lower costs or, just as easily, generate increased demand on the health sector and raise costs.[65] [66] [67]

7.27 Generally, to date, the latter has tended to occur. The introduction of new drugs, for example, may improve the effectiveness of treatment for some illnesses, but may also increase needs in two ways:

7.28 Firstly, they have the capacity to benefit more people and might also increase the average length of illness (expand morbidity rates) in that they keep alive those that may have died without the new treatment. Secondly, it is likely that the amount of treatment for each patient may rise in terms of visits to the prescribing doctor.[68] [69]

7.29 Innovations such as "telemedicine" and "telehealth" could provide the opportunity for specialists and other health professionals to monitor a person's health status remotely, as well as linking health professional networks around the country and overseas, which is especially valuable for some of the smaller specialties. The New Zealand TelePaediatric service is a good example, providing a core communication network to help improve equity of access to specialist medical care for all children regardless of where they live.

7.30 While such technology may improve quality, treatment options and access to health care, there is no sign that in the foreseeable future new technologies will mitigate the need to increase the specialist workforce (or any other health professional workforce) to meet the current and future health needs of an ageing population.[70] The experience so far is that, if anything, it increases the demand for specialist services. In the United Kingdom it has been found that over the past 20 years medical technology has increased the availability and accessibility of treatments to a larger number of people and for longer periods of time.[71]

7.31 In areas such as surgery, technological advances have led to the application of existing procedures to a wider range of individuals. Research on the effects of the introduction of laparoscopic technology on the threshold to perform cholecystectomy, for example, found that the improved technology led to

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[64] D Wanless. *Securing our future health: taking a long-term view.* Department of Health, 2002. London.

[65] P Sheehan 2002. *Health Costs, Innovation and Ageing*. Melbourne, Pharmaceutical Industry Project. Equity, sustainability and industry development. Working Paper No. 9. Center for Strategic Economic Studies, Victoria University of Technology. Quoted in Cornwall and Davey (2004).

[66] P Mohr, C Mueller, et al 2001. *The Impact of Medical Technology on Future Health Care Costs.* Bethesda: Project Hope, Center for Health Affairs. Quoted in Cornwall and Davey (2004).

[67] S Hogan 2002. *How Will the Ageing of the Population Affect Health Care Needs and Costs in the Foreseeable Future?* Discussion Paper No. 25. Toronto: Commission on the Future of Health Care in Canada. Quoted in Cornwall and Davey (2004).

[68] RG Evans, SG McGrail et al 2001. *Apocalypse No: Population aging and the future of health care systems.* Social and Economic Dimensions of an Ageing Population. Research Paper no. 59. Hamilton: McMaster University.

[69] D Metz 2001. *Changing Health Status: A demographic time bomb?* Institute for Public Policy Research (IPPR), Pensions and Long Term Care Project. Available at: www.ippr.org.uk/research/files/team24/project16/healthstatusDM.doc.

[70] DR Masys, "Effects of current and future information technologies on the health care workforce," *Health Affairs*, Vol 21, No 5, 2002.

[71] Wanless (2002).

increased rates of surgery. Minimally invasive surgical techniques are rapidly improving and finding new applications. If this trend continues, the demand for surgical procedures may see even further increases as clinical thresholds for other procedures are lowered.[72]

7.32 Developments in new technology have also led to the creation of new specialties, as well as a need for more specialists. From 1983 to 2001 one of the leading not-for-profit health maintenance organisations in the United States, Kaiser Permanente, saw a much greater increase in its specialist workforce compared to its primary care workforce, evidently due to "the inexorable impact of changing technology in the practise of medicine in our setting".[73]

7.33 Examples of this are illustrated in three areas (cardiology, radiology, and gastroenterology). In each example, the diagnosis or treatment of a common condition in 1983 was well within the purview of the primary care physician but by 2001 had moved into the purview of the procedure-based specialist:

> *In 1983 cardiac auscultation by stethoscope, for the diagnosis of both congenital and acquired heart disease, was a proud part of the armamentarium of primary care physicians, both adult and paediatric. By 2001 cardiac auscultation, for these purposes, had largely been replaced by extremely sophisticated echocardiography, a much more sensitive and specific tool but one performed routinely by highly trained echocardiographers, a subspecialty barely thought of in 1983.*
>
> *Similarly, in 1983 breast self-exam and physician breast examination were important parts of the early detection of breast cancer. By 2001, although both self- and physician breast examination were still widely practised, screening mammography had become the medical "bottom line" for the early detection of breast cancer. Thus, much of the job of detecting breast cancer has passed from primary care physicians to highly trained mammographers, a subspecialty of radiology.*
>
> *In 1983 the most commonly used screening test for the detection of colorectal cancer was fecal occult blood testing. This test was generally ordered and interpreted by primary care physicians... While fecal occult blood testing is still used, it has largely been replaced by screening sigmoidoscopy, and more recently by colonoscopy, both requiring the talent of highly skilled gastroenterologic endoscopists. – (Crosson 2004)*

7.34 While Kaiser Permanente has seen specialist services grow with the greater development and use of new technology, the health maintenance organisation (HMO) has achieved lower rates of hospital use compared to other HMOs (as well as Britain's National Health Service), its health costs per employee are indicated to be around 10% lower than the United States average, while its health outcomes compare well with other American providers. It has achieved this through a range of measures such as technology assessment, evidence-based medicine, active peer review and integrated team-based care. [74] [75] The latter is not only necessary to provide effective patient-centred care – the dramatic expansion of information to be evaluated, diagnostic alternatives and therapies to be prescribed will also require a greater emphasis on collaboration and teamwork over individual work.[76]

7.35 The literature indicates that while new technologies will enable more treatment and care to take place outside of traditional hospital settings, at the same time the assessment of treatment options will

[72] DA Etzioni et al, "The Ageing Population and its Impact on the Surgery Workforce," *Annals of Surgery*, 2003 August; 238(2): 170–177.

[73] FJ Crosson, "The changing shape of the physician workforce in prepaid group practice", Health Affairs, 4 February 2004. Available at: *http://content.healthaffairs.org/cgi/content/full/hlthaff.w4.60v1/DC1.*

[74] Crosson (2004).

[75] R Feachem et al, "Getting more for their dollar: a comparison of the NHS with California's Kaiser Permanente", *BMJ* 2002;324(7330):135 (19 January).

[76] DR Masys, "Effects of current and future information technologies on the health care workforce," *Health Affairs*, Vol 21, No 5, 2002

continue to become more sophisticated. Continuing advances in scientific knowledge will require new areas of specialisation and expertise within the team:[77] [78]

> *Technologies derived from our newfound ability to understand disease at a molecular level will increase the number of specific types of diseases and the number of therapies from which practitioners must make a selection. For example, instead of two major types of diabetes, we may find that there are dozens based on key differences in the molecular mechanisms that lead to the common finding of elevated blood sugar. Similar kinds of heterogeneity are likely to be found for most diseases… For common diseases such as high blood pressure, diabetes, and heart disease, a future practitioner may have to select from hundreds if not thousands of potential treatment options.*
>
> Masys 2002

7.36 A further effect of rapid technological advances concerns the time needed for specialists to continually update their knowledge and technical skills to keep abreast with latest medical advancements. It is compulsory for specialists to fulfil ongoing medical education requirements.

7.37 Furthermore, as diagnostic techniques improve and procedures become more diverse, in-hospital training requirements for junior doctors increase. Pressures on the hospital system mean that hospitals are finding it more difficult to release consultants to supervise and teach junior doctors. [79] [80]

Quality Standards

7.38 The Health Practitioners Competence Assurance Act (HPCAA) provides the basis for regulating health practitioners. It includes mechanisms to ensure that practitioners are competent and fit to practise their professions for the duration of their professional lives.

7.39 Under the HPCAA, regulatory authorities are responsible for ensuring that practitioners meet registration and competency requirements. A set of competencies is developed for each scope of practice. Regulatory authorities also shape the content of education and training programmes by determining whether or not the content meets professional registration requirements. These requirements are derived from the professional practice models and standards developed by each professional College.

7.40 Employment relations also play an important role in maintaining quality and safety. Under employment-related legislation, professional scopes of practice and professional development are factors that may determine terms and conditions of employment and career development in national multi-employer collective agreements (MECAs).

7.41 Tensions arise between policy-makers and employers on the one hand, and colleges and employee representatives on the other, as part of the continuing process of balancing resource constraints against the need to maintain professional and employment standards. Service quality and safety issues often lie at the heart of these tensions.

7.42 The "Safe Staffing, Healthy Workplaces" Committee of Inquiry, relating to the nursing workforce, and the Ministry of Health-led Quality and Safety Project, relating to the unregulated health and disability support workforce, are two examples of quality and safety investigations that uncovered major workforce deficiencies, which are now beginning to be addressed.

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[77] DR Masys, "Effects of current and future information technologies on the health care workforce," *Health Affairs*, Vol 21, No 5, 2002.

[78] National Public Health Services for Wales, *Impact of Medical Technological Advances*, October 2005.

[79] Government Careers Service website: *Physician: pay and job outlook*. Available at: www.careers.govt.nz/default.aspx?id0=60103&id1=J15110.

[80] Doctors in Training Workforce Roundtable (2006). *Training the Medical Workforce: 2006 and Beyond*. Ministry of Health (2006). Available at: www.moh.govt.nz.

7.43 Significantly, neither of the above investigations were initiated as a result of any monitoring or evaluation of services, despite much anecdotal evidence over a long period indicating quality and safety issues. The first investigation came out of a 2005 MECA settlement between the NZ Nurses' Organisation and DHBs in response to the NZNO's concerns about nursing workloads. The second was instigated following concerns raised by unions and community groups, with support from employers, and a responsive Associate Minister of Health.

Specialist Training Requirements

7.44 Vocationally registered practitioners, including specialists and general practitioners, play the key role in the apprenticeship model of training, where the junior doctor observes, practises and gradually acquires the competencies of the senior practitioner.

7.45 However, the Clinical Training Agency's workforce analysis in 2001 commented:

> *New Zealand is currently facing a shortage of vocationally registered doctors. This shortage impacts on the current [post-graduate, Year 1] trainees in terms of workload, and the amount of time set aside for training.*

7.46 Five years later, a medical training "Roundtable" set up by the Minister of Health to advise on the volume and type of training required, observed in its 2006 report that vocationally trained medical practitioners, who conduct training, supervision and assessment in their own time, were still "under considerable pressure as they seek to balance service delivery with training requirements".[81]

7.47 Adding to these pressures is an increasing dependence upon overseas-trained doctors (discussed in the following chapter). Employment of overseas-trained doctors is essential to the running of our health service, but New Zealand's excessive reliance on them often adds further to the workloads of senior doctors.

> *Difficulties include communication problems, the need to work in a team, time management, adapting to the New Zealand health system and the higher levels of practical skills required. This can result in many demands being put on intern supervisors. Dealing with individual problems can be very resource intensive (sometimes, for example, the intern requires "buddying" for a period).*
>
> Doctors in Training Workforce Roundtable 2006

7.48 The Roundtable Report suggests that increasing demands of service and educational standards may in the future mean fewer senior doctors are willing to participate in training activities unless additional resources are made available to them.

7.49 Given these conditions, and the time needed for training and recruiting specialists, the key challenges that New Zealand faces in building the capacity of its specialist workforce to meet current and future needs are not only to retain the specialists but ensuring they have sufficient support to train the future generations of specialists.

Government Policies

7.50 The New Zealand Public Health and Disability Act 2000 (NZPHD) requires implementation of two overarching strategies:

(a) The New Zealand Health Strategy, aimed at improving population health outcomes and reducing disparities, and

(b) The New Zealand Disability Strategy, aimed at enhancing participation and independence of people with disabilities.

[81] Doctors in Training Workforce Roundtable (2006). *Training the Medical Workforce: 2006 and Beyond*. Ministry of Health (2006). Available at: www.moh.govt.nz.

7.51 These strategies provide a framework for a range of specific population services and diseased-based strategies, including primary health care, Māori and Pacific health, mental health, and the health of older people.

7.52 The general themes that run through the strategies are requirements to:

(a) take a preventive, population-based approach to improving health outcomes

(b) shift the emphasis of service delivery and resourcing from secondary and tertiary services to primary care, and link with services across the sector

(c) increase the accessibility and acceptability of service provision in the community

(d) develop culturally appropriate services, including Māori and Pacific health care service providers.

7.53 According to a Ministry of Health overview of workforce development:[82]

> *"The service models they imply are consumer-centred, focused on primary care public health (population health) rather than secondary and tertiary health care, based on higher cognitive and higher generalist skills rather than specialist skills, and emphasise collaboration and teamwork over individual work, as well as integration across health, disability and social services."*
>
> Health Workforce Development 2006

7.54 Despite the policy emphasis on illness prevention and primary care, demand for hospital services is continuing to grow. In the six years to 2006 public hospitals handled 20% more medical cases and a 12% increase in case-weighted elective surgery discharges, (though restricted by capacity constraints), as well as increases in surgical outpatient procedures.[83],[84] The number of hospital day-patients treated per head of population increased by 10% from 1999/00 to 2005/06, and there is evidence of increasing acuity of patients, overall, in that same period.[85]

7.55 Strategies to reduce the incidence of preventable disease ought to have some effect on reducing future demands on the medical workforce. Predicting the impact of this against the effects of an ageing population with increased chronic conditions is difficult.[86]

7.56 A significant issue is whether increasing life expectancy equates with improving or deteriorating age-specific health status. Although mortality trends are declining in many western countries, this does not tell us much about the relative health of the people who are living longer. As a result, there is a great deal of debate about rates of morbidity among older people as life expectancy continues to rise.[87]

7.57 Nor is there consensus as to how mortality rates will change in future. While public health strategies and new health technologies may reduce mortality, these may be offset by lifestyle factors (eg obesity, diabetes) and new disease risks (eg antibiotic-resistant bacteria, SARS).[88]

7.58 It was because of these uncertainties that the NZIER paper made no assumptions about the effectiveness of the preventive, population-based approach.

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[82] Ministry of Health 2006. *Health Workforce Development: An Overview*. Ministry of Health, Wellington.

[83] Ministry of Health 2007. *Health and Independence Report 2007*. Available at www.moh.govt.nz.

[84] Hon Pete Hodgson, speech: "The Crisis Syndrome: New Zealand's Health Debate", 1 May 2006. Available at: www.beehive.govt.nz.

[85] L Malcolm, "Trends in hospital bed utilisation in New Zealand 1989 to 2006: more or less beds in the future?" *NZ Medical Journal*, 26-October-2007, Vol 120 No 1264.

[86] Health Workforce Advisory Committee (2006). *Fit for Purpose and for Practice*. Available at: www.hwac.govt.nz.

[87] J Cornwall, J Davey. *Impact of Population Ageing in NZ on the Demand for Health and Disability Support Services, and Workforce Implications*. Background paper prepared for the Ministry of Health, December 2004. NZ Institute for Research on Ageing and the Health Services Research Centre. Victoria University, Wellington.

[88] Ministry of Health 2007. *Long Term Sector Plan Overview*. Unpublished.

It is possible that, in time, improved health education, coupled with increased emphasis on health monitoring in the primary sector, might reduce the need for health and disability services and, hence, the demand for labour. Again, however, the reverse might be true if, for example, health education results in more self-aware and demanding patients or if monitoring uncovers conditions that would otherwise have gone untreated. (NZIER p48).

7.59 The paper concluded: "The current approach to health and disabilities services provision is unsustainable." But unlike the other government advisory groups and commissioned papers looking at future health workforce requirements that highlighted the need to increase the size of the workforce through recruitment and retention,[89] [90] [91] [92] this paper suggests the increases needed may not be achieved for two reasons:

7.60 First: "…other countries might intensify their recruitment of New Zealand-trained doctors and nurses and so on as their own populations age. Therefore, relying solely on recruiting and training more health professionals as a means of meeting service needs might become even more like filling a leaking bucket than it is already."

7.61 The second reason suggested is that if the Government succeeded in substantially improving per capita GDP, there would be greater competition for labour in the domestic economy that would see unregulated health and disability workers attracted to other sectors.

7.62 The paper did not identify recruitment and retention of medical specialists as an issue, despite an earlier analysis by the Clinical Training Agency indicating: "The present shortage of specialists represents a crisis for New Zealand."[93]

7.63 The NZIER paper concluded:

It is unsafe to assume that health and disability services will be able to increase their share of the total workforce in New Zealand to avoid labour shortages, nor can productivity increases be counted on, nor can better health education and monitoring be relied upon to reduce service needs. Thus, attention needs to focus on how the health and disability workforce should be educated, trained, developed and deployed.

7.64 Over recent years much of the government's emphasis has indeed been on exploring ways to expand the roles of some health professionals, such as GPs and nurse practitioners, developing new career pathways, "collaborative innovation", service redesign and a range of activities that generally come under the headings of "new ways of working" and "new models of care".[94] [95] [96] [97]

Models of Care

7.65 Other countries that, like New Zealand, are facing significant demographic changes, increasing demand for health care and health workforce shortages are beginning to explore new approaches to service delivery in an attempt to find greater efficiencies. Generally this involves developing new multidisciplinary approaches to delivering services, recognising that most illnesses, and particularly

[89] Ministry of Health 2004. *Ageing New Zealand and Health and Disability Services 2001-2021*. Available at www.moh.govt.nz.

[90] Cornwall and Davey (2004).

[91] Health Workforce Advisory Committee 2006. *Fit for Purpose and for Practice.* Advice to the Minister of Health on the issues concerning the medical workforce in New Zealand. Available at: www.hwac.govt.nz

[92] Doctors in Training Workforce Roundtable 2006. *Training the Medical Workforce: 2006 and Beyond*. Ministry of Health (2006). Available at: www.moh.govt.nz.

[93] Clinical Training Agency 2001. *The Health Workforce: A training programme analysis*. Ministry of Health, Wellington.

[94] N Murray, Presentation to the Workforce Development Sustainability Conference 2006. Available at: www.cmdhb.org.nz/Counties/Conferences/2006/Workforce/presentations.htm.

[95] D Meates. Presentation to the conference "Workforce Change: Thinking Global, Acting Local", Wellington 2007. Available at: www.healthsectorconferences.org.nz.

[96] Hon David Cunliffe. "Leading the health sector". Speech to a Health leadership forum, Wellington, 6 May 2008. Available at: www.beehive.govt.nz/speech/leading+health+sector.

[97] Ministry of Health 2007. *Long Term Sector Plan Overview*. Unpublished.

chronic health problems, are complex to manage with input required from several health disciplines. Secondly, health care demand is growing at rates that funders are finding difficult to sustain. Thirdly, workforce shortages range across health disciplines and specialty areas, particular service areas, and geographic areas. In the face of these shortages, service agencies are examining new ways of responding to demand (eg job-redesign and workforce re-engineering). Fourthly, in the longer term the available pool of a potential future workforce is shrinking.[98]

7.66 Technological advances in medicine have also impacted on the development of models of care. The expectation is that in the future, advances in technology will accelerate, as will their uptake, though their effect on future health workforce requirements remains difficult to assess.

> *Hence, any new approaches to health workforce planning will need to be sufficiently flexible to allow for the unpredictable. What is well known and understood is that most advances in medical technology have resulted in increased complexity in service delivery, increased specialisation and potential for fragmentation in service delivery; with effects on demand, practice and productivity … As a consequence of these pressures, new interdisciplinary models of service delivery have evolved to facilitate collaborative decision-making among an increasingly specialised workforce and new roles have emerged (eg programme coordinators, case managers) to enable continuity of care for patients.*
>
> AMWAC 2005[99]

7.67 There is considerable variability in how a "models of care" approach is defined. It may relate to a broad state-wide structuring of a workforce, or identifying the health workforce required to provide a particular health programme or stream of services in a particular setting. It may relate to a particular health problem (eg people with cancer) and the multidisciplinary workforce required to provide the full range of services (eg oncology services) based on recognised or agreed-upon optimal models of service delivery. It may also relate to a particular segment of the population, such as frail elderly people, or children. An Australian survey suggests the use of the terms "models of care" and "models of service" is interchangeable.

7.68 In New Zealand, following a Victoria University evaluation of the current health model[100] and a review of the Ministry of Health[101] renewed efforts are being directed into improving service planning and coordination. Proposals being considered include developing more extensive primary care centres while concentrating the more advanced medical and surgical services and complex emergency services into fewer centres. Such proposals would promote greater development of multidisciplinary teams, regional and national clinical networks, and would involve specialists travelling to local clinics (as well as more patients travelling to specialist services), and greater use of communication technology.

> ***A regional clinical service…is more than simply the aggregate of two services in separate neighbouring DHBs. A regional clinical service is responsible for the total Otago-Southland populations as a whole rather than in each of the two DHB. Its objective is to ensure that it has the regional capability to provide the services expected of both DHBs.***
>
> Otago/Southland DHBs 2008

7.69 These approaches formed the basis of a draft regional report prepared by the shared support agency, Technical Advisory Services for the six DHBs in the lower North Island.[102] [103]

7.70 That report noted: "There are not enough clinical staff to do the job and the ones we have are spread too thinly, into small, vulnerable departments." Across the six DHBs, 35

[98] Australian Health Workforce Advisory Committee et al, *A models of care approach to health workforce planning*. Health Workforce Information Paper 1, March 2005.

[99] ibid

[100] Health Services Research Centre, 2007. Health Reforms 2001: Evaluation Research Project. Available at: www Victoria.ac.nz/hsrc/reports/new-reports.aspx.

[101] Ministry of Health 2006. *Review of the Current State of the Ministry of Health*, Ministry of Health, December 2006.

[102] *Dominion Post* 2008. "Hub plan to save region's hospitals". *Dominion Post* 2 July 2008.

[103] Technical Advisory Services Ltd. *Regional Clinical Services Plan* website: www.rcsp.org.nz (Note: Publications: "Horizon Scan – Short to Medium Term").

clinical departments were reported to have two or fewer full-time specialists. The report highlighted services that had failed, or nearly failed, in the past two years, including child cancer and cardiac services in Wellington and obstetrics, gynaecology and paediatrics in Whanganui.

7.71 The global trend towards increasing specialisation in medicine is a particular issue for New Zealand with its small population and thinly spread resources, and is seen as another reason for reorganising services. At the same time, government policy is to provide a wider range of services closer to home.

> *To overcome these challenges [of thinly spread resources], DHBs need to work more closely together. Sharing clinical services across boundaries can sustain patient access without centralising services, and provide safer workloads.*[104]

7.72 This has been the approach of a highly successful clinical network model in New South Wales, where clinical specialties are linked across hospitals to form a single service for a region.[105]

> *The networking of services will mean that no matter which hospital a patient attends initially, that patient should now have access to the skills and expertise of specialist practitioners across the whole network of health facilities, rather than solely at the presenting hospital. Hospital transfers will be facilitated if required. Improved communication and coordination of resources across the hospital system will ensure that patients receive better and safer care, which will result in better outcomes.*[106]

7.73 The New South Wales model, which involves doctors, nurses, allied health professionals, scientists, managers and consumers, has achieved numerous successes, while it continues to develop. The ASMS has been advocating this model for New Zealand for several years.

7.74 The findings of the Victoria University evaluation and the review of the Ministry support the need to explore better ways of collaborating at all levels of the health system – nationally, regionally and within the DHBs themselves, especially between hospital services and primary care services. There is also a wealth of research from here and overseas supporting the promotion of clinical networking and greater emphasis on multidisciplinary teams.

A regional clinical service is absolutely not centralisation in which resources in the smaller DHB are concentrated in the larger. Instead a regional clinical service ensures a sufficient critical mass and resources to enable service provision to the wider community.

Otago/Southland DHB 2008
Otago & Southland DHBs. Regional Clinical Services Concept Paper 2008 (unpublished draft)

7.75 In fact there is a good case for exploring clinical networks that link across the Tasman. With increasing specialisation and increasing international competition for specialist skills, there are potential benefits for both New Zealand and Australia in developing closer ties and investigating the value of an Australasian medical workforce.

7.76 All of the developments or proposed developments discussed above could play an important role in securing adequate and effective health services in New Zealand in the future. New Zealand urgently needs to commit more resources to support health workforce research and innovation, including more exploration of measures that may improve effectiveness and efficiency, and measures that may potentially alleviate the sheer scale of the projected need for all health disciplines over the coming decades.

[104] National Party 2008. *Health Policy – Part 1: Funding & Framework*. Available at: http://national.org.nz/files/2008/health_1.pdf.
[105] New South Wales Health. The Greater Metropolitan Clinical Taskforce. Available at: www.health.nsw.gov.au/gmct.
[106] New South Wales Health, 2004. *Embracing Change: Report of the Greater Metropolitan Transition Taskforce. Available at:* www.health.nsw.gov.au.

7.77 A "horizon scan" produced for the Central Region Clinical Services Plan suggested that "specialists focus on doing the work that only they can do and [support] others to deliver the more general services".[107]

7.78 The document provided an example (from a conference presentation) of a British case study where a GP managed more urology patients with support from hospital services, including the use of telemedicine to send ultrasounds for radiology reporting. The presentation showed the study reduced costs, and reduced referral rates to specialists, with no changes in patient outcomes.

7.79 As secondary and primary services become better integrated, with services organised around the individual patient's needs (and there is no longer a distinction between secondary and primary), it is possible that in some cases "shared care" arrangements have the potential to enable GPs to take less complex work that would normally be the responsibility of a specialist.

7.80 Similarly, a study of different models of care for arthritis found models using health care providers in expanded clinical roles "had potential to rationalise the use of specialist resources and to decrease waiting times for specialist care, by freeing up specialist time".[108]

7.81 Reports of "surgical practitioner" trials in the United Kingdom include:

(a) a 30-minute reduction in the average time for bilateral varicose vein surgery

(b) an average reduction of 20 minutes of consultant time per gynaecology operation.[109]

7.82 The potential for evidence-based initiatives to improve access and free up time for specialists to do other work is reason alone for them to be supported and developed (through extensive consultation and consensus-building). However, the evidence from such studies to date suggests any impact they may have on future demand for specialists would be, at best, marginal and may in fact increase pressure on other groups of health professionals such as general practitioners.

7.83 Some new models of care in a fully integrated system of the future may in fact require an increased use of specialists to achieve maximum benefits to patients and cost effectiveness. For example, a recent United States study of hospital patients who are cared for by hospitalists (specialists in hospital-based medicine) found the patients had a shorter length of stay, with similar outcomes, as those cared for by family physicians.[110]

7.84 An audit of medical activity at Christchurch Hospital at night suggests "out of hours multidisciplinary teams", including the employment of more specialists but fewer resident medical officers, shows potential for achieving efficiency and effectiveness. [111]

7.85 Another study found that the Californian health maintenance organisation Kaiser Permanente, which employs a relatively high number of medical specialists, uses far fewer acute hospital bed days compared to other health systems. For example, Kaiser, where "specialists are uncoupled from the hospital and work alongside generalists in multi-specialty medical groups", used less than a third of the number of acute bed days than Britain's NHS.

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[107] Hewlett-Packard Development Company (2008). *Central Region Clinical Services Plan: Horizon Scan – Short to Medium Term.* Hewlett-Packard. Available at: www.rcsp.org.nz.

[108] C MacKay et al, "Characteristics of evolving models of care for arthritis: A key informant study," BMC Health Services Research 2008, 8:147. Available at: www.biomedcentral.com/1472-6963/8/147.

[109] Health Workforce Advisory Committee 2005. *Fit for purpose and for practice: a review of the medical workforce in New Zealand. Consultation Document.* Available at www.hwac.govt.nz.

[110] PK Lindenauer et al 2007. "Outcomes of Care by Hospitalists, General Internists, and Family Physicians". *New England Journal of Medicine*, Vol 357:2589-2600. No 25 December 20, 2007. Available at: http://content.nejm.org/cgi/content/full/357/25/2589.

[111] J Morton et al. "New Zealand's Christchurch Hospital at night: an audit of medical activity from 2230 to 0800 hours". *NZMJ* 31 March 2006 vol 119 No 1231. Available at: www.nzma.org.nz/journal/119-1231/1916/.

Kaiser has considerably more specialists per 100,000 population than the NHS — for example, twice the concentration of gynaecologists and three times the concentration of cardiologists. It is likely that the availability of extra specialists contributes to the differences we have observed. One hypothesis would be that there is a substitution effect between beds and staff, with the NHS having to make greater use of beds because it employs fewer doctors.[112]

7.86 In yet another model, this relating to hospital emergency departments, some overseas emergency services are operating on a "greet and treat" basis where people are treated in the order of arrival. This model has been developed and implemented as part of the health reforms in the United Kingdom and has been credited with dramatic reductions in waiting times in emergency departments – a key aim of the New Zealand Government.[113] At least one DHB has been eyeing this model (MidCentral) but says it "requires increased numbers of senior clinicians".[114] (The practice for triaging and treating people in emergency departments in New Zealand is based on clinical priority, ie those assessed by the emergency team as being the highest priority get seen first.)

7.87 To achieve greater effectiveness, efficiency and responsiveness, models of care need to be greater than the sum of their parts, and act on a knowledge base of accumulated best evidence that can change quickly and continuously if necessary.[115]

7.88 A prerequisite is to secure the "parts". Existing models of care in New Zealand have not lived up to expectation, or their potential, in part because of the lack of specialists and other staff.

7.89 The Cancer Control Strategy, for example, incorporates key elements of coordination, collaboration and networking, and patient-centred care provided by multi-disciplinary teams through the "continuum of cancer control", including consideration of extending roles for some practitioners.[116] [117]

7.90 However, following the release of a Ministry report on the first two years of the strategy, the Cancer Society commented that "very little…has been achieved", in part because there are insufficient resources for actually delivering on the strategy.[118]

7.91 This is reinforced in a Ministry of Health workforce stocktake, which notes: "Implementation of the New Zealand Cancer Control Strategy Action Plan 2005–10…cannot succeed without a highly motivated, skilled workforce."[119] The report goes on to record a catalogue of workforce shortages, including radiologists, colonoscopists, pathologists, radiation oncologists, medical oncologists, haematologists, medical physicists and palliative medicine specialists, as detailed in the following chapter. Recruitment and especially retention were cited repeatedly as "key challenges" for these groups.

7.92 The recent Ministry of Health Quality Improvement Plan for diabetes and cardiovascular disease (CVD) is another example of how the objectives of models of care can be thwarted by lack of specialists and other clinical staff. The models of care for these diseases are represented through a group of clinical best-practice guidelines that include promotion of collaborative, multidisciplinary

[112] C Ham et al. "Hospital bed utilisation in the NHS, Kaiser Permanente, and the US Medicare Programme: Analysis of routine data. *British Medical Journal*, 2003;327;1257. Available at: *bmj.bmjjournals.com/cgi/content/abstract/327/7426/1257.*

[113] Hon Tony Ryall, Speech to Australasian College for Emergency Medicine Conference, 24 November 2008.

[114] Mid-Central Health DHB, *District Annual Plan* 2008/09.

[115] D Masys 2002. "Effects of current and future information technologies on the health care workforce." *Health Affairs*. 21: 33-41. Available at: http://content.healthaffairs.org/cgi/content/full/21/5/33.

[116] Ministry of Health 2003. *New Zealand Cancer Control Strategy*, Wellington. Ministry of Health. Available at: www.moh.govt.nz/cancercontrol.

[117] Ministry of Health 2007, *Cancer Control Workforce Stocktake and Needs Assessment*, Wellington. Ministry of Health. Available at: www.moh.govt.nz/cancercontrol.

[118] Cancer Society of New Zealand 2007. Media releases: 24 August 2007, 31 October 2007. Available at: www.cancernz.org.nz.

[119] Ministry of Health 2007, *Cancer Control Workforce Stocktake and Needs Assessment*, Wellington. Ministry of Health. Available at: www.moh.govt.nz/cancercontrol.

teams and networks and evidence-based processes. The aims of the plan include reducing delays to treatment and improving hospital inpatient services.[120]

7.93 According to a 2001 PricewaterhouseCoopers report commissioned by Diabetes New Zealand, there was a "severe shortage" of specialist care available for people with diabetes in some regions, with the average representing less than 20% of the United Kingdom.[121] Medical Council figures show that in 2000 there were seven diabetologists, 13 endocrinologists and 29 nephrologists practising in New Zealand; in 2007 there was just one more diabetologist, five more endocrinologists and nine additional nephrologists, indicating continuing shortages.

7.94 Endocrinology and diabetes services were among those listed as "vulnerable" in a 2008 Central Regional DHBs' report, with all service departments in the region having fewer than 2.0 full-time equivalent specialists.[122]

7.95 An Auditor-General's report on the effectiveness of the "Get Checked" diabetes programme commented that most specialist diabetes services that the Auditor-General's office spoke to felt under pressure.[123]

> *The secondary care diabetes specialists that we spoke to also commented that, if the national referral guidelines were strictly adhered to, they would not have enough resources at the secondary care level to deal with the increased demand. They believed that they only had enough resources to deal with complex, difficult-to-manage cases…Specialist diabetes services will come under more pressure if the numbers of people participating in the programme increase or more people are diagnosed with diabetes. – Auditor-General 2007*

7.96 Diabetes New Zealand estimates there will be more than 400,000 New Zealanders with type 2 diabetes by 2022, based on new modelling by the Ministry of Health.[124]

7.97 With regards to cardiovascular disease, despite the increasing and ageing population, the number of cardiothoracic surgeons practising in New Zealand increased by just one between 2000 and 2007 (therefore indicating a drop in per capita terms), and Medical Council statistics indicate the number of cardiologists is little more than half the specialist-to-population rate recommended for Australia by the Australian Medical Workforce Advisory Committee.[125]

7.98 A recent national review of cardiac surgery services cites a shortage of anaesthetists and registrars as one of the reasons New Zealand has come bottom of a survey of seven comparable countries for heart patients' access to potentially life-saving surgery. [126]

7.99 Canada and Australia both had access rates more than 70% better than our own. England's rate was nearly 40% better. Of the five New Zealand DHBs with cardiac surgical services, only Otago had a consistent rate of access comparable to other first world countries.

7.100 The review calls for New Zealand's cardiac surgery rate to increase to 73 operations for every 100,000 people, up from the current 54 operations per 100,000. It also shows that while funding for cardiac surgery has increased, the number of operations declined between 2002/03 and 2006/07, due in part to staffing shortages.

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[120] Ministry of Health 2008. *Diabetes and Cardiovascular Disease: Quality Improvement Plan*. Wellington: Ministry of Health.

[121] PriceWaterhouseCoopers 2001. *Economic Report – Type 2 Diabetes: Managing for Better Health Outcomes*, Diabetes NZ. Available at: www.diabetes.org.nz/resources/research__and__reports/2001_report__type_2_diabetes.

[122] Central Regional DHBs 2008. *Regional Clinical Services Plan*. Wellington: Central Regional DHBs.

[123] Controller & Auditor General 2007. *Ministry of Health and District Health Boards: Effectiveness of the "Get Checked" diabetes programme. Available at: www.oag.govt.nz/2007/diabetes.*

[124] Radio New Zealand 2008. *Morning Report*, 17 October 2008.

[125] Clinical Training Agency 2001. *The Health Workforce: A training programme analysis*. Ministry of Health, Wellington, quoting Australian Health Workforce Advisory Committee: Report 1999.5.

[126] Cardiac Surgery Services Working Group 2008. *Cardiac Surgery Services in NZ,* Ministry of Health, Wellington. Available at: www.moh.govt.nz.

7.101 A separate review of cardiac surgery services in Wellington found that a series of preventable deaths at the DHB were also due in part to staff shortages, including anaesthetists, cardiologists and registrars, and the resignation of a surgeon.[127]

7.102 Other countries that are exploring new models of care, such as the United Kingdom, Canada and Australia, have recognised the importance of adequate staffing in progressing such activity. Hence, investigations and trialling of new models are happening alongside a strong commitment to sustainable recruitment and retention strategies. This is particularly so in countries which, like New Zealand, have a larger competitive neighbour.

7.103 A Scottish Government review of its medical workforce notes that changing models of care are potentially an important influence on future staffing numbers. "Some of these changes will tend to increase the number of doctors required…while other changes will tend to reduce numbers…At present, it is difficult to judge what allowance should be built into projections to reflect these factors."

7.104 However, the reviewers are in no doubt about addressing the demand for medical specialists: "In the future specialists will increasingly be part of and may lead a multi-professional team rather than a medical 'firm' or general practice. The move towards a specialist-delivered service needs to be confirmed and a strategy to achieve this agreed, with implementation coordinated nationally."

7.105 The review says more doctors will be needed to deliver both hospital specialist and general practice services, and: "Maintaining recruitment and retention in the face of increasing competition from England in particular is essential [*review's emphasis*]. Improving retention can increase numbers in the short term, while measures to increase training output will take time to bite."[128]

7.106 New Zealand's Health Workforce Advisory Committee (HWAC), which also identified the need for significant service and workforce redesign, including "skill transfer and enhancement, and collaboration between all disciplines", regarded retention of doctors as a "critical" priority, noting that 36% of New Zealand doctors under retirement age no longer hold an annual practising certificate, suggesting that many have moved overseas, mostly to Australia.[129]

7.107 In Australia, health workforce reviewers identified a number of strengths in a "models of care" approach to workforce planning:

(a) it can consider multiple occupations simultaneously;

(b) it promotes a multidisciplinary approach;

(c) it has the potential to be more resource and time efficient than profession-based approaches; and

(d) it is more closely linked to service delivery than profession-based approaches.[130]

7.108 They also noted some potential concerns about the use of a "models of care" approach to workforce planning. That:

(a) it introduced more complexity into an already complex area;

(b) it planned for a model of care which may or may not be able to be implemented;

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[127] J Elliott, I Crozier 2008. *Report on Patients Awaiting Cardiac Surgery: Capital and Coast DHB*. Ministry of Health, Wellington. Available at: www.moh.govt.nz.

[128] Scottish Government 2002. *Future Practice: A Review of the Scottish Medical Workforce*. Available at: www.scotland.gov.uk/Publications/2002/07/15037/8372.

[129] Health Workforce Advisory Committee 2005. *Fit for Purpose and for Practice (discussion document)*. Available at: www.hwac.govt.nz.

[130] Australian Health Workforce Advisory Committee and Australian Medical Workforce Advisory Committee 2005. *A Models of Care Approach to Health Workforce Planning*. Health Workforce Information Paper 1. March 2005. Sydney.

(c) it is difficult to achieve consensus on any given model of care given variation in consumer needs, clinical perceptions and judgements;

(d) geographic and population differences make one model of care unlikely (so there may need to be several); and

(e) it required consumer acceptance of a model based on assessed need, as compared with meeting consumer demand.

It is important to note that models of care health workforce planning does not have as its focus health workforce planners dictating new ways of health professionals or service providers providing care, whilst recognising that in a dynamic environment ways of providing health care will evolve.

Australian Health Workforce Advisory Committee 2005

7.109 In short, "new models of care" are works in development and their impact, if any, on future health workforce planning is largely unknown. What is clear from New Zealand's experience with current models of care is that the evolution of new models will be restricted, or even unable to proceed, while there are shortages of key specialists and where the turnover of staff is such as to disrupt continuity in the development of new innovative approaches.

Use of the Private Sector

7.110 A key change planned for the delivery of health services will be the introduction of competitive tendering and for greater use to be made of the private sector.[131] [132] But such a move is likely to create further difficulties for the public sector in attracting and retaining staff, and threatens the viability of some services.

7.111 Firstly, given the international competition for – and scarcity of – specialists, there is some risk that a greater use of the private sector will simply shift resources away from the public sector and displace, rather than increase, health service activity.

7.112 Secondly, the type of cases that would be shifted from public to private would be the low-cost, high-turnover, low-risk cases. This would mean higher complexity in case-mix in public hospitals and a restriction of training opportunities for common conditions.[133]

7.113 Thirdly, as commented in a Ministry of Health report: "In a number of DHBs, a critical mass with respect to volume of work is required to ensure clinical and financial viability. This includes the ability to provide both elective and acute services. The removal of services (in most cases lower acuity services) to alternative providers, may potentially compromise the viability of the DHBs…"[134]

7.114 The cumulative effects of the above would most likely make working conditions in the public sector more difficult, work satisfaction less likely and the "leaking bucket" more leaky.

7.115 Higher pay and greater clinical autonomy in the private sector has seen many specialists shift from public to private practice when the opportunities have arisen in the past. Such was the case when government policy favoured greater use of the private sector in the 1990s.

7.116 By the end of the 1990s Medical Council workforce survey results show that on average specialists spent around half their time in the public sector and about 40% in the private sector, with the remainder employed in the education sector, government, professional bodies etc. With a change of

[131] National Party 2007. *Better, Sooner, More Convenient: National's Health Discussion Paper*. Available at: www.national.org.nz.

[132] National Party 2008. Health policy documents. Available at: www.national.org.nz.

[133] T Ashton, "More debate needed on private provision" *NZ Herald*, 10 May 2006..

[134] Ministry of Health 2006. *Addressing Disincentives – Working Party Report*, Ministry of Health June 2006. Available: www.moh.govt.nz/publications

policies in 2000 favouring more public provision, the proportion of time spent in the public sector grew from 48.9% in 2000 to 73.5% in 2005, though the trend appears to have flattened out with the proportion remaining around 73% for 2006 and 2007.

7.117 Some specialties still remain largely private. Medical Council workforce survey data show specialists in ophthalmology and dermatology spend most of their time in private practice, and specialists in radiology, orthopaedic surgery and pathology spend more than half their time in private practice.

7.118 There are also signs that a trend back towards more private provision may already have started in some specialties, such as in surgical services generally. The lack of capacity in the public sector to increase its elective surgery volumes has seen more services contracted to the private sector. In 1999/2000, for example, the Auckland DHB contracted just 0.1% of its elective surgery to the private sector, while Counties Manukau and Waitemata DHBs contracted out none. In 2007/08, the three DHBs between them contracted out 10.6% of their elective surgery.[135]

7.119 A Royal Australasian College of Surgeons' survey has found more than one in six surgeons (17.5%) is now working solely in private practice – matching the proportion working only in the public system (most surgeons work in both public and private systems).[136] The shift towards the private sector is also suggested in Medical Council data, which show that between 2006 and 2007 the private sector gained an estimated 12.1 FTE surgeons compared to a slight drop of 2.6 FTEs in the public sector.[137] DHBNZ's specialist workforce data also suggest a shift to the private sector. While the number of specialists practising in New Zealand increased by 184 from 2006 to 2007[138], the number of specialists employed by DHBs fell slightly during that period (see Appendix 3, Figure 9).

7.120 As well as more public contracts going to private service providers, the demand for private services is also increasing. Health insurance industry data show that in the year to 31 March 2008 there was a net increase of 18,800 people with elective surgical and specialist cover, which now accounts for 884,000 of the 1.388 million lives covered, or 63.7% of those covered by health insurance.[139] In the year to June 2008 New Zealand's largest health insurer, Southern Cross, funded 145,000 elective procedures, a 15% increase since 2006, while private sector hospitals are expanding their facilities, particularly in areas such as surgery and radiology.[140] [141]

7.121 Access to timely public radiology services has also been affected by radiologists resigning from the public sector and moving to private practice. Abano Healthcare's growing private radiology services now employ eleven radiologists in Auckland, while public patients in Auckland are continuing to have difficulty in accessing timely treatment.[142]

7.122 It is beyond the scope of this paper to analyse the full impact of increased use of the private sector in a competitive environment, which is potentially wide ranging, including creating more barriers to the collaborative networking arrangements that are proposed, as well as to developing cohesive multi-disciplinary teams and improved continuity of care.

[135] M Johnston, "Elite hospitals do 10% of public ops", *NZ Herald*, 4 November 2008.

[136] NZ Herald, "More surgeons quitting public practice to go private: survey", *NZ Herald* 23 October 2007.

[137] Medical Council of NZ, Medical Workforce in 2007, unpublished data held by the National Health Information Service, Ministry of Health, Wellington.

[138] Medical Council of New Zealand. *Medical Workforce Survey 2007*.

[139] Health Funds Association of New Zealand, *Annual Report 2008*.

[140] Southern Cross Medical Care Society, *Annual Reports* 2008 and 2007.

[141] R Laugesen R. "Healing the system: the future of public health," *Sunday Star Times*, 17 February 2008. Available at: www.stuff.co.nz/sundaystartimes/4134549a26503.html.

[142] Hon Damien O'Connor, Parliamentary question for oral answer, *Hansard*, 9 September 2008.

Summary

7.123 It is widely agreed that there will be a considerable increase in demand for health and disability support services over the coming decades, which will see a corresponding increase in demand for health professionals.

7.124 It is widely acknowledged that medical specialists are part of a global market for skills which are becoming increasingly scarce.

7.125 New Zealand is not currently well positioned in this international market: the size of New Zealand's medical specialist workforce, adjusted for population and compared with other countries, is at the bottom of the OECD scale.

7.126 Calculating the number of specialists needed in New Zealand over the coming decades is an inexact science but from the information available a range of estimates can be made.

(a) Using the NZIER scenarios, the number of medical specialists in New Zealand would need to increase by approximately 63% to 108% between 2001 and 2021. That equates to between 4440 and 5670 specialists by 2021, which would require a median average increase of about 120 per year from 2007, but it is likely this would perpetuate current shortages.

(b) To achieve Australia's current proportion of specialists per head of population (1.3/1000 population) by 2016, New Zealand would need an additional 297 specialists per year from 2007.

(c) To achieve the OECD average of 1.7 specialists per 1000 population by 2021, New Zealand would need an additional 350 specialists per year from 2007. (Medical Council statistics show the net increase of specialists over the last seven years has averaged around 100 per year.)

7.127 The government approach to date is to attempt to mitigate pressures on the health workforce as a whole by improving coordination and collaboration of services and developing new models of care. Any impact that such measures may have on the future demand for specialists is unknown. There is no evidence to suggest a reduced need for specialists, assuming that any specialist's time that may be freed up is used to improve the scope and effectiveness of the service, including addressing unmet needs. Depending on the models developed, there may be a need to increase the number of specialists in order to improve efficiency.

7.128 Government policy to make greater use of the private sector could further increase the demand for specialists and further limit their availability in the public sector.

8 SUPPLY OF MEDICAL SPECIALISTS: THE TRENDS

8.1 The supply of medical specialists has three elements:

- Sources feeding more specialists into the system through the training role
- Recruitment (from New Zealand and overseas), and
- Retention

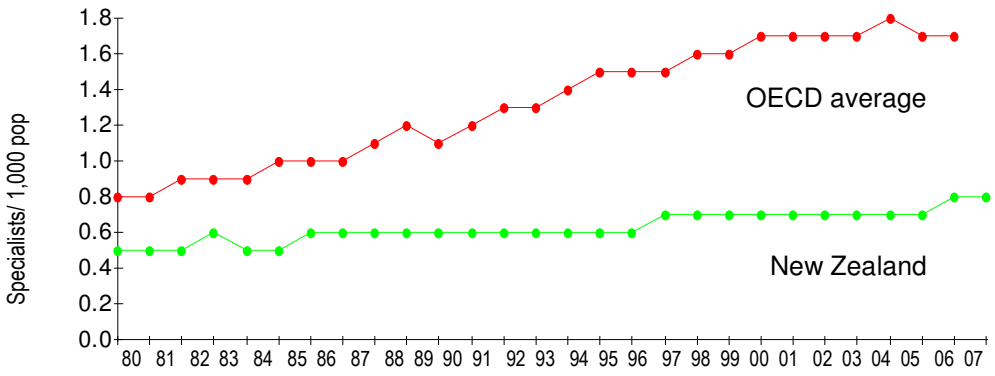
8.2 Chapter Nine examines these elements. However before examining these it is important to have an understanding of recent trends in the medical specialist workforce which are outlined below.

8.3 Overall, the Medical Council workforce surveys indicate that over the seven years to March 2007, the medical specialist workforce grew by 706 (from 2653 to 3359) – ie approximately 100 specialists per year on average[143]. However, as mentioned in the previous chapter, DHBNZ's quarterly workforce data shows the number of specialists in the public sector actually decreased during the two years to June 2008 (see Appendix 3). This suggests a shift to the private sector over the last two years.

8.4 Notwithstanding the above, even if over the longer term the specialist workforce were increasing by around 100 specialists per year, that would be insufficient to meet New Zealand's future needs. While it would be within the range projected by NZIER (using the latest population projections), NZIER assumed "favourably" that the 2001 workforce levels were adequate to meet current needs. The Clinical Training Agency's analysis of the medical workforce for 2000 indicated a shortfall of up to 300 specialists, excluding several specialties that required further analysis. Table 3, which builds on the CTA's analysis using more recently available data, indicates the 2000 shortfall may have been more than double the original estimate. This is underpinned by OECD statistics showing that not only has the number of specialists per population in New Zealand been less than the OECD average for at least the past 25 years, we have fallen further behind over that period.

8.5 While international comparisons may be regarded cautiously, we know enough about the specialist workforce characteristics of countries such as Australia (which is also below the OECD average), to be confident the comparisons are valid. The results of the Medical Council's latest (2007) survey show New Zealand currently has approximately 0.8 specialists per 1000 population. To equal Australia's 1.3 specialists per 1000 population, New Zealand today would need an additional 2200 specialists.

Figure 4 Evolution of Practising Specialists in New Zealand and OECD Average 1980-2007



Source: OECD Health Data 2008 (plus MCNZ for NZ 2007).

[143] National Health Information Service 2008 (from unpublished Medical Council of New Zealand Workforce Survey data, 2007).

8.6 Table 3 provides specialist workforce comparisons between 2000 and 2007 by the specialty groups based on the information available. The recommended specialist-to-population ratios are from a variety of international sources (see following notes) and should been seen as indicative. Recent qualitative information on some specialties, such as obstetrics and gynaecology, and anaesthesia, suggest some of the ratio benchmarks are conservative for current New Zealand conditions.

Table 3 Medical Specialist Workforce by Specialty, 2000 and 2007

	2000[a]			2007[b]			
Specialty	**No. (active)**	**No. per pop.**	**Deficit/ surplus**	**No. (active)**	**No/ pop.**	**Deficit/ surplus**	**Recommended benchmark**
Not recorded	*			45			-
Other	22			52			-
Anaesthesia	341	1:11,313	-40c	435	1:9720	- 63	1:8,500d
Basic Medical Science	15			13			-
Breast Medicine	*			*			-
Dermatology	41	1:94,100	-17 (+)	46	1:91,960	-18(+)	Less than 1:66,500e
Emergency Medicine	24		-156 (+)	82		-118(+)	(f)
Musculo-Skeletal	5			11			-
O & G	168	1:9030	adequate	188	1:9075	shortage	1:10/15,000g
Occupational Medicine	34			48			-
Ophthalmology	83	1:46,480	-57	96	1:44,060	-80	1:22,700 to 1:26.000h
Pathology	133		shortage	152		-29 FTEs	(i)
Intensive Care	11			53	1:80,000	-38(+)	(j)
Internal Medicine	502	1:7579	-187 (+)	552	1:7680	-250 (+)	(k)
Paediatrics	147	1:7466	shortage	192	1:5950	shortage	1:5400l
Palliative Medicine	7	1:547,286	shortage	25	1:169,132	-37	61.6 FTEsm
Psychiatry	274	1:14,080	-109	373	1:11,340	-50	1:10,000n
Public Health Medicine	89			108	shortage		(o)
Radiology	201	1:19,193	shortage	245	1:17,258	shortage	(p)
Radiation Oncology	26	1:148,377	-13	32	1:132,190	-11	1:100,000[q]
Rehabilitation Medicine	7	1:551,114	-24	7	1:604,290	-35	1:50,000/ 200,000r
Sports Medicine	*			9			-
Sexual Health	6	1:643,000	-33	10	1:423,000	-32	1:100,000[s]
Surgery: Cardio	18	1:212,833	Adequate[t]	19	1:222,630	-9	1:150,000[u]
Surgery: ENT	60	1:63,850	-17	72	1:58,750	-13	1:50,000 [u]
Surgery: General	145	1:26,421	-34v	166	1:25,480	-3	1:25,000 [u]
Surgery: Neuro	14	1:273,643	-9	19	1:223,000	-5	1:180,000 [u]
Surgery: Orthopoedic	145	1:26,421	-10	173	1:24,450	adequate	1:25,000 [u]
Surgery: Other	34			32			-
Surgery: Paediatric	12	1:319,250	-3	13	1:325,000	-4	1:250,000 [u]
Surgery: Plastic	31	1:123,581	-8	38	1:111,320	-6	1:100,000 [u]
Surgery: urology	29	1:132,103	-35w	36	1:117,500	-38	1:50,000 [u]
Surgery: vascular	11	1:348,273		16	1:264,000		-
Surgery: Other	34			32			-
Surgery: Subtotal	[499]	1:7677	-116x	[584]	1:7252	-110	-
TOTAL	2653	1:1454	-752 (+)	3359	1:1318	-802 (+)	-

Sources: See Table 3 Sources and Notes. * Denotes less than 4 specialists

Table 3 Sources & Notes

a) Numbers of active specialists and specialists per population: Clinical Training Agency (2001). The Health Workforce: A Training Programme Analysis. Ministry of Health 2001. Deficit/surplus was estimated from benchmarks provided in the CTA document.

b) Numbers of active specialists: National Health Information Service 2008 (from unpublished Medical Council of New Zealand Workforce Survey data, 2007). Specialists per population: calculated from Statistics NZ population data. Deficit/surplus was estimated from benchmarks listed below.

c) Based on 1996 recommended benchmark of one specialist per 10,000 head of population.

d) Baker AB 1997. Anaesthesia Workforce in Australia and NZ, Anaesthesia and Intensive Care 1997. Feb; 25(1):60-7. University of Sydney, Australia.

e) Australian Medical Workforce Advisory Committee (AMWAC) considered a ratio of 1:66,500 inadequate (AMWAC Report 1998.1). Note: All AMWAC reports are available at www.nhwt.gov.au/publications.asp.

f) New Zealand Faculty, Australasian College for Emergency Medicine. Workforce Document, April 2003 (unpublished). Recommended a minimum of 180 specialists.

g) Royal Australian and New Zealand College of Gynaecologists and Obstetricians, 2008. Workforce Study (unpublished).Population based on females 15 years and over. Note maldistribution/private sector provision.

h) AMWAC Report 1996.6. The Ophthalmology Workforce in Australia.

i) NZ Committee of Pathologists, Workforce Analysis: Pathologists in New Zealand 2007. Royal College of Pathologists of Australia 2007. Note: The RCPA estimated a total of 210 (148.3 FTE) pathologists in 2007, including specialists practising in clinical haematology and clinical immunology.

j) AMWAC Report 1999.1, Intensive Care Workforce in Australia. AMWAC considered a ratio of 1:46,600 inadequate. AND: Martin J et al, Intensive Care Resources and Activity: Australia and New Zealand 2003-2005, Australian and New Zealand Intensive Care Society 2006. Available at: www.anzics.com.au/uploads/ARCCCR_03_05Report_final_2007.pdf

k) See Appendix 4.

l) AMWAC Report 1999.6. The Consultant Paediatric Workforce in Australia. Population calculations based on 0-18-year-olds.

m) Ministry of Health (2007). In 2001, palliative medicine became a vocational scope in its own right, separate from internal medicine. The 2000 data has been included here for completeness.

n) World Health Organisation.

o) Clinical Training Agency (2001). The Health Workforce: A Training Programme Analysis. Ministry of Health 2001. The CTA noted in 2001 that the strengthening focus on preventative measures would most likely require an increase in public health physicians.

p) Shortage indicated in: Ministry of Health 2007, Cancer Control Workforce Stocktake and Needs Assessment, Wellington. Ministry of Health. AND: Royal Australian and New Zealand College of Radiologists (2007). Results of 2006 Royal Australian and New Zealand College of Radiologists Workforce Surveys. Available at: www.ranzcr.ed.au.

q) Morgan G et al 2000. Projected requirement for radiation oncologists and trainees in Australia and NZ to 2007. Australasian Radiology. 2000 Feb; 44(1): 88-97. Shortage also indicated in Ministry of Health (2007).

r) Shortages indicated in Clinical Training Agency's Clinical Purchasing Plan for 2001/02.

s) Auckland District Health Board. 2007. Career Med: Specialties List.

t) Based on 1996 recommended benchmark of 1:250,000.

u) For all surgical specialties: For 2000: Clinical Training Agency (2001). For 2007: Royal College of Surgeons of England, 2005. Developing a Modern Surgical Workforce, January 2005. Available at: www.rcseng.ac.uk/publications/docs/modern_surgical_workforce.html

v) Based on 1996 recommended benchmark of 1:21,500. (CTA 2001).

w) Based on 1996 recommended benchmark of 1:60,000. (CTA 2001).

x) The Clinical Training Agency (2001) estimated an overall shortage of 63 surgeons, based on the Royal Australasian College of Surgeons' 1996 recommendation of one specialist per 6,800 head of population for New Zealand. However, the combined shortage of individual surgical specialties totals 116 surgeons.

8.7 As well as specialist-to-population benchmarks (which should be updated regularly to take account of the dynamic nature of health service delivery), other indicators that could be applied to assess medical workforce adequacy include:

(a) Unfilled positions
(b) Unmet need and waiting times in elective surgery
(c) Patient access
(d) Hours of work
(e) Quality and safety measures
(f) Referring practitioner assessment of access
(g) Consumer assessments of access
(h) Views of practitioners in the workforce under review[144]

8.8 Below, complementing Table 3, are summaries of the "then and now" data, including some sub-specialties. It is not a comprehensive list but, again, is based on the information available from sources such as the CTA, MCNZ and other information from DHBs and professional colleges.

Anaesthesia

8.9 The New Zealand Medical Council's annual workforce survey data (2007) shows there were 435 anaesthesia specialists practising in New Zealand. This represented a ratio of approximately one specialist for every 9720 people. An Australian workforce analysis has recommended a specialist to population ratio of 1:8,500,[145] indicating a current New Zealand shortfall of more than 60 specialists.

> *In the popular media it has been reported recently that there is a serious nationwide shortage of anaesthetists in New Zealand. This claim is supported by reports from other hospitals throughout New Zealand…. Some of the deficit appears to be related to retention of staff rather than to inadequate numbers in training. For example, four anaesthetists resigned from one hospital over a very short period, with the result that the hospital was unable to perform all required surgery.*
>
> CTA (2001)

In September 2008 Counties Manukau District Health Board was reported to be short of about 20 FTE anaesthetists. Population growth and difficulties in recruiting were cited as reasons for the shortage. The DHB's chief medical office suggested anaesthetists' "can-do attitude" had kept the extent of the shortages hidden. The board had not been aware of the shortage until a recent examination of the issue, raising questions as to the quality of workforce monitoring.[146]

[144] Australian Medical Workforce Committee (AMWAC) 2003. *Specialist Medical Workforce Planning in Australia*. AMWAC Report 2003.1 May 2003

[145] Baker AB 1997. Anaesthesia Workforce in Australia and NZ, *Anaesthesia and Intensive Care* 1997. Feb; 25(1):60-7. University of Sydney, Australia.

[146] C Borely, "Angry anaesthetists threaten work-to-rule", *NZ Herald* 9 September 2008.

Cancer Treatment Services

8.10 A Ministry of Health workforce stocktake[147] records widespread shortages in cancer treatment services. For example:

- The availability of radiologists is … a limiting factor for the BreastScreen Aotearoa programme… It has not been possible to recruit more radiologists into screening…
- A shortage of colonoscopists and trained nursing staff is the major limiting factor for…
- the provision of both diagnostic and surveillance colonoscopy procedures at present…
- Overall pathologist numbers in New Zealand have actually dropped in the last two years…
- There continue to be some capacity shortfalls [for radiation oncologists] against benchmarks... There is some evidence that radiation treatment volumes are not increasing as rapidly as expected…
- There is an ongoing shortfall of medical physicists against benchmarks … recommended FTE positions are being filled by physics technicians…
- There are currently significant recruitment and retention issues for [medical oncologists and haematologists]. Vacancy rates have been around 10–15% over the previous nine months for both [groups]…
- Availability of specialist oncology pharmacists is reported to be a limiting factor on DHBs' ability to establish or maintain cytotoxic compounding units…
- …it seems clear that under any analysis the specialist palliative medicine workforce is undersupplied.

Emergency Medicine

8.11 The 2001 CTA analysis shows there were 24 active emergency medical specialists in New Zealand, noting that it was a specialty that was undergoing rapid growth. Medical Council data indicate there were 82 practising emergency medicine specialists in New Zealand in 2007. The New Zealand faculty of the Australasian College for Emergency Medicine estimates New Zealand needs a minimum of 180 specialists to achieve an acceptable standard of care.[148]

[147] Ministry of Health 2007, *Cancer Control Workforce Stocktake and Needs Assessment*, Wellington. Ministry of Health. Available at: www.moh.govt.nz/cancercontrol.

[148] New Zealand Faculty of the Australasian College for Emergency Medicine, 2003. *Workforce Document*.

General Medicine

8.12 There are currently about four FTE general physicians per 100,000 people in New Zealand. The Internal Medicine Society of Australia and New Zealand (IMSANZ) estimates New Zealand needs between five and seven FTEs per 100,000 population to provide adequate service, teaching and research capacity in general medicine. This will vary among centres depending on the service configurations, with smaller regional centres requiring higher ratios than metropolitan centres.[149]

8.13 In 2005, the IMSANZ estimated there was a national shortage of approximately 50 general physicians, assuming on average each physician was a 0.5 FTE (based on Medical Council data).

Intensive Care Medicine

8.14 From 2000/01 to 2004/05, the number of available intensive care beds in New Zealand fell from 6.02 per 100,000 population to 4.91/100,000 – an 18% reduction. During the financial years 2003/04 and 2004/05 an estimated 755 elective procedures were cancelled and 99 patients were unable to be admitted to intensive care units in New Zealand due to staffing shortages or insufficient resources.[150]

Case example: Tauranga

The following example was included in a 2005 discussion paper produced by the Internal Medicine Society of Australia and New Zealand.* While it is written from the viewpoint of general physicians, it provides a useful insight as to how workforce pressures impact on the provision of services at a provincial hospital level.

This city has a demographic much as New Zealand will be in 2021. Tauranga Hospital's current staffing is 12 physicians (although advertising for number 13 has occurred over the last six years).

One physician practises subspecialty neurology and does not contribute to the acute medical admitting roster.

Three practise subspecialty cardiology and work a 1:3 week and 1:6 weekend acute admitting roster targeting admissions with a predominant cardiovascular flavour from the medical admissions.

This splitting arose in part because the post-take physician ward rounds were taking more than eight hours to complete (Tauranga averages 25 admissions per 24 hours), and in part because of increasing reluctance and ability of some physicians to manage acute cardiology problems.

Eight other physicians also contribute to the acute medical admitting roster on a 1:6 basis; only three would consider themselves true generalists, all practise subspecialty medicine, including respiratory, rheumatology, endocrinology/diabetes, gastroenterology, infectious diseases, and elderly medicine.

The hospital has been unable to secure oncologists or renal physicians, despite providing more than 25% of Midland region's work, because of issues regarding sole practice and collegiality. This has impacted on acute medicine as inpatient care for these subspecialties is provided by the physician on call.

Four of the top 10 diagnostic related groups (DRGs) for inpatient and outpatient numbers are respiratory, but there are only 1.3 FTEs currently in respiratory medicine (and only 0.3FTE for first 6 months of this year).

All the Tauranga Hospital physicians feel the acute admitting component of their jobs is becoming increasingly onerous and not sustainable without increasing physician numbers.

There is no doubt that in Tauranga Hospital more and more physician time is now by default committed to providing the inpatient medical services, and physicians struggle to balance this with other commitments, including teaching, continuing medical education and planning activities, and elective work for which there is an exponential growth in demand. The *causes are multifactorial but include:*

- *the quality and experience of the registrar staffing (most registrars in Tauranga are pre FRACP written examination, and increasingly foreign medical graduates or locums)*

[149] Internal Medicine Society of Australia and New Zealand (2005). *General Physician Numbers (New Zealand): A discussion paper.* Available at www.imsanz.org.au/resources/documents/NZ_genmed_workforce.pdf.

[150] J Martin et al, *Intensive Care Resources and Activity: Australia and New Zealand 2003-2005*, Australian and New Zealand Intensive Care Society 2006. Available at: www.anzics.com.au/uploads/ARCCCR_03_05Report_final_2007.pdf.

The Auckland DHB comments:

> *"The current specialist to population ratio is far from adequate although the exact ratio depends on which part of the country is being considered. There are about 50 FTE intensive care specialists active in New Zealand at present, with up to 18 FTE more non-intensive care trained specialists also active in intensive care medicine. Almost all of this latter group are anaesthetic specialists who are practising (often cross cover) in peripheral centres because there is an insufficient number of qualified intensive care specialists available to fill these positions.*
>
> *"At present there are about 50 intensive care trainees registered in New Zealand, although many are not currently working in ICUs or actively attempting to sit the ICU exam.*[151]

Obstetrics and Gynaecology

8.15 A workforce study by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists shows New Zealand needs about 15 additional specialists to meet current needs. The shortage of specialists is jeopardising emergency obstetric services in provincial areas, and women with high-risk pregnancies may have to travel to other cities before their due dates.

- *ongoing rapid population growth, particularly of the elderly*
- *increasing acuity and complexity of chronic disease/co-morbidities in this population – and this also includes now a significant proportion of patients admitted to the adult surgical services who need to be managed by physicians*
- *Services for the elderly are chronically under-staffed due to the inability to fill a geriatrician position, and this has major implications because of the important interface of Acute Medicine with Medicine for the Elderly*
- *Inadequate staffing hospital-wide and too few beds to deal with the BoP population (bed numbers have decreased, while the city population has doubled in last 20 years). This puts pressure on processing and discharging patients as quickly as possible (not necessarily increasing efficiency, nor a good thing for quality of care or safety)*
- *Hospital currently being rebuilt, major disruptions to current service provision, and predictions that we will still not meet the needs*
- *expectations of the public to have the "best" care*

The other area of major concern for the Bay Of Plenty is continuing to provide medical services to the Eastern Bay of Plenty via Whakatane Hospital. It has been impossible to employ long-term physicians, staffing is made up of locums and medical officers.

One model for the future is for physicians based in Tauranga to be rotated there on a short-term basis and to run a short-term Medical Admitting Unit with longer stay and more complex patients transferred to Tauranga. This will never be feasible with current physician numbers.

For Tauranga Hospital we believe physician FTEs will need to be doubled to approximately 24FTE to provide appropriate mix of inpatient and elective services at the Tauranga and Whakatane campuses.

* Internal Medicine Society of Australia and New Zealand (2005). General Physician Numbers (New Zealand: A discussion paper. Available at www.imsanz.org.au/resources/documents/NZ_genmed_workforce.pdf

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[151] Auckland District Health Board. 2008. *Career Med: Specialties List*. Available at www.adhb.govt.nz/CETU/cim/specialties/specialty.information.html.

8.16 The study says the shortage was putting extra pressure on those practising in the public system, pushing them to consider working in more lucrative and less stressful private practice. "Specialists tended to be pushed out of the public system by punishing on-call rosters, dissatisfaction with pay and working conditions and their treatment by management."[152]

Paediatrics

8.17 There were about 150 active paediatric and child health specialists in New Zealand in 2000, indicating a specialist to population (0-18 years) ratio of approximately 1:7500. In 2007, Medical Council data indicate there were 192 practising specialists, giving a population ratio of about one specialist per 6000 children. However, overseas studies suggest the ideal ratio ranges between one paediatrician per 1200 to one paediatrician for every 2000 children.[153]

8.18 Based on the 2007 figures, New Zealand would need more than 570 paediatricians (ie 380 additional specialists) to attain a ratio of one specialist per 2000 children (0-18-year-olds).

> *"… there is a worldwide shortage of oncologists, and vacant oncology positions in New Zealand are not expected to be filled in the short term due to better career opportunities available in other countries… turnover of senior oncologists is increasing as New Zealand salaries fall further behind those of their overseas equivalents." (Written November 2004) – Government Careers Services website*
>
> www.careers.govt.nz

Palliative Medicine

8.19 A 2001 Ministry of Health paper stated: "All District Health Boards should have access to specialist palliative care services but it will not be possible for all DHBs to provide these services directly. To ensure an appropriate level of access there should be at least six specialist palliative care services based in Auckland, Hamilton, Palmerston North, Wellington, Christchurch and Dunedin." The paper says each palliative care services should employ two or more FTE palliative care specialists.[154]

8.20 In 2007 Medical Council statistics show there were just 25 specialists nationwide, with just 6.8 FTEs working for DHBs.

Pathology

8.21 In 2001 the Clinical Training Agency reported: "The pathology workforce is under major stress. Although the investment in training has increased dramatically, there was a reduction in the number of vocational registrations in pathology in 2000. Two high-profile cases recently have highlighted the deficiency in the workforce, and there is pressure to address this as soon as possible." [155]

8.22 A workforce analysis by the New Zealand Committee of Pathologists shows the pathology workforce is under even greater pressure today. The analysis found that between 2003 and 2007 the number of FTE pathologists decreased by 7% – from 159.4 to 148.3, while the population increased by 5%. The population ratio for New Zealand now stands at one FTE pathologist per 20,000 head of population.

8.23 In Australia, where there is considered to be a severe shortage of pathologists, there is a population ratio of one pathologist per 15,925. This means New Zealand would require 58 more pathologists to come up to the same level as Australia.

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[152] Royal Australia and New Zealand College of Gynaecologists and Obstetricians, 2008. Workforce Study (unpublished).

[153] L Althouse, J Stockman. Paediatric Workforce: A look at paediatrics data from the American Board of Paediatrics. *Journal of Paediatrics* 2006;148:166-9. Available at: http://journals.elsevierhealth.com/periodicals/ympd/search/quick.

[154] ibid

[155] Clinical Training Authority (2001). *Purchasing Intentions Plan 2001-2002*. Available at: www.moh.govt.nz.

8.24 In terms of FTE, New Zealand has one FTE pathologist per 27,877.

8.25 Based on current training numbers, current rates of international medical graduates (IMGs) entering, retirements and pathologists leaving, the committee estimates that by 2018 New Zealand will be 106.9 FTE pathologists short of the Clinical Training Agency's projected requirements. Taking the best case scenario to meet this demand there would need to be at least an additional 10 FTE coming into the system each year for 10 years on top of the current 4.1 FTEs.

8.26 Says the committee: "Unless there is a dramatic increase in migration of pathologists to New Zealand, which is unlikely because of the international crisis in the pathology workforce and the lower pay and workload conditions offered in New Zealand for pathologists, an increase in the number of training position [at least 20-30 position per year] will be required." [156]

Psychiatry

8.27 The New Zealand Medical Council's annual workforce survey data (2007) shows there were 373 psychiatrists practising in New Zealand. This represented a ratio of approximately one psychiatrist for every 11,300 people. The Royal Australian and New Zealand College of Psychiatrists (RANZCP) recommends a range of specialist to population ratios, including:

- 1:7,500 for deprived locations
- 1:10,000 for urban areas
- 1:20,000 for large rural areas.[157]

8.28 The World Health Organisation (WHO) recommended ratio for psychiatrists in a population is 1:10,000. Based on the 2007 Medical Council's workforce survey data this indicates New Zealand had a workforce deficit of approximately 50 practising psychiatrists in 2007.

> *Most district health boards are unable to fill positions and there are acute shortages in rural areas. This situation is unlikely to change over the next two to three years.*
>
> *These shortages are slightly offset by the number of foreign trained psychiatrists practising in New Zealand. However, many of these people are only prepared to work in urban areas and most spend a short time practising here before moving on.*
>
> *The low retention rate for newly qualified psychiatrists is one of the main factors causing shortages. High student debt and relatively low salaries compared to other specialities has led to many medical students choosing another speciality or leaving New Zealand after becoming qualified to pursue better salaries and working conditions.*
>
> Government Career service website: www.careers.govt.nz

Radiology

8.29 A "key recommendation" of the CTA's 2001 medical workforce analysis was to:

> *Give urgent priority to analysis and solutions for the stretched pathology and radiology workforces. Demands on the current workforce are increasing, while there is also growing evidence that service needs have not or will not be met in the short term.*

8.30 The CTA report also indicated a maldistribution of the radiology workforce, with almost half the radiologists working in Auckland in 2000. A workforce survey in 2004 indicated continuing shortages and continuing maldistribution. About 45% of respondents had their main work in the private sector. Over 40% of trainee radiologists said they intended to work part-time five years after completion of training, compared with 25% of the current radiologist workforce.[158]

[156] NZ Committee of Pathologists, *Workforce Analysis: Pathologists in New Zealand 2007*.

[157] Clinical Training Authority (2007). *Purchasing Intentions Plan 2007-2008*. Available at: www.moh.govt.nz.

[158] Royal Australian and New Zealand College of Radiologists. *2004 Workforce Survey: Diagnostic Radiologists Report*.

The current workforce shortages in radiology are well known and are affecting many radiology providers throughout New Zealand as well as internationally. These staff shortages have an effect on the service levels able to be delivered for primary referrals.

MidCentral[159]

Radiation Oncologists

8.31 In 1999 there were 25 (28.5 FTEs). To meet demand in the short to medium term, a Ministry of Health paper estimated 39 FTEs were needed by 2004, or two radiation oncologists per year.[160] In 2007 there were just 32 practising radiation oncologists.

Rehabilitation Medicine

8.32 The CTA's Clinical Purchasing Plan for 2001/02 said: "The New Zealand public could support up to five times the current number of active rehabilitation medicine specialists." In 2001 there were seven active rehabilitation medicine specialists in New Zealand; in 2007 that number remained unchanged.

A radiologist's personal perspective

A few years ago our management paid for a benchmarking exercise by a radiology professor from Australia. It was well researched and written, comparing us with departments from New Zealand and Australia. It said we needed 8 FTE radiologists, and at the time we had just under 5 FTEs. Management accepted the report and we commenced efforts to find more radiologists. Since that time we have lost two full-time radiologists to jobs in Australia. For the last couple of years we have had 2.8 FTEs, plus two half-time locums, there much of the time, but not constantly. There are two full-timers, me half time, with the other half at BreastScreen (also run by the DHB), and one three- tenths, and otherwise in private. Work has become more and more stressful, and on-call more and more onerous. We are getting worn-out. We have all been suffering from this very low staffing level, and I have said to our immediate managers several times: "This situation is critical, what happens if one of us falls over, gets sick or dies, or simply leaves?"
Two weeks ago it happened. I was on call when one of my colleagues was brought in unconscious, severely ill. If he comes back to work it will be a very long recuperation and rehabilitation period.

Now the "critical" staffing situation has become "system collapse". We cannot do all the work, we can't provide the services needed for a large hospital in our provincial centre. Management is frantically trying to find locums, both for day-to-day work and for on-call. We have to cope with the severe illness of a friend and colleague, at the same time as trying to cope with the increased workload and stress created by this.

So what is the answer?
We cannot attract and retain radiologists when our pay and conditions are so far behind those in Australia. It is not just pay, it is all the extras (like cars, phones, computers, broadband etc), but pay is the primary answer to the problem.

Don't get me wrong, we have good management, with whom we have a good relationship, and by New Zealand standards our pay is quite good (over the MECA). Management have been trying to find more radiologists, and have found some locum support for call.

This is a severe risk for departments in most hospitals in New Zealand, particularly provincial New Zealand, but including departments in our larger cities. We are "getting by" on severely restricted staffing levels, basically propped up by the dedication of the one or two senior medical staff who provide the services. But when one of those "falls over", or finally gives up because they can't take it any more, then the system collapses.

Glyn Thomas, Radiologist
Palmerston North

[159] MidCentral Health. Primary Referred Radiology Strategy, unpublished – www.midcentraldhb.govt.nz.
[160] Ministry of Health 2001. *Improving Non-Surgical Cancer Treatment Services in New Zealand. Wellington. Available at www.moh.govt.nz.*

Rural Hospital Specialists

8.33 The Medical Council has recently recognised rural hospital medicine as a vocational scope of practice. So far 27 doctors are active candidates for grand-parenting into this vocational scope of practice most of them presently employed as medical officers.[161] One of the reasons that has been put forward for shortages of specialists has been the increasing tendency for greater specialisation and sub- specialisation. A former DHB chief executive[162] has seen the development of rural hospital generalists as the solution for New Zealand's provincial hospitals. However even in the rural hospitals that are the target for this new speciality there are acute shortages of medical officers 6 or 7 short in Otago/Southland alone. Because they are almost always first on call they can't be cross covered; there is a very high dependency on overseas doctors and a very small pool both of doctors and potential locums leading to a high turnover.[163]

Sexual Health

8.34 The Medical Council's annual workforce survey data (2007) show there were 10 sexual health specialists practising in New Zealand. This represented a ratio of approximately one specialist for every 423,000 people. Overseas studies suggest a specialist to population ratio of 1:100,000,[164] indicating New Zealand has less than a quarter of the required sexual health specialist workforce.

Surgery (across all surgical specialties)

8.35 The CTA analysis shows there were 499 active surgeons across all surgical specialties in New Zealand in 2000, which the agency estimated to represent a shortage of more than 60 surgeons, based on the Royal Australasian College of Surgeons' specialist to population ratio.

8.36 By 2005 the RACS's previously recommended benchmark had been reached. However, a paper recently published in the *New Zealand Medical Journal* indicates that to maintain the number of surgeons per population, we will need 820 surgeons by 2026, or 50 new surgeons each year, taking into account those that retire.

8.37 To provide sufficient services to cover estimated unmet need, about 1055 surgeons will be needed by 2026 (77 new surgeons a year).

8.38 Currently, approximately 37 surgeons graduate from the Royal Australasian College of Surgeons' surgical training programme annually in New Zealand.[165]

8.39 There is also evidence of a recent surgical workforce shift from the public to the private sector, creating further pressures on specialist workforce supply. A RACS survey has found more than one in six surgeons (17.5%) is now working solely in private practice – matching the proportion working only in the public system (most surgeons work in both public and private systems).[166] The shift towards the private sector is also suggested in Medical Council data, which show the private sector gained an estimated 12.1 FTEs compared to a slight drop of 2.6 FTEs in the public sector.[167]

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[161] Communication from Linda Hartsonge, Administrator for the Division of Rural Hospital Medicine, RNZCGP.
[162] Kevin Hague, former Chief Executive West Coast DHB at Joint Consultative Committee , 4 March 2008
[163] From comments supplied by Dr Paul Trotman, Gore Health and Dr Matt Born, Dunstan Hospital
[164] Auckland District Health Board. 2008. *Career Med: Specialties List*. Available at www.adhb.govt.nz/CETU/cim/specialties/specialty.information.html

[165] A Raymont, J Simpson, Projections of surgical need in New Zealand: estimates of the need for surgery and surgeons to 2026. *NZMJ* 2008; 121-1275, 6 June 2008.

[166] *NZ Herald*, "More surgeons quitting public practice to go private: survey" 23 October 2007.

[167] Medical Council of NZ, *Medical Workforce in 2007*, unpublished data held by the National Health Information Service, Ministry of Health, Wellington.

8.40 Health insurance industry data show that in the year to 31 March 2008 there was a net increase of 18,800 people with elective surgical and specialist cover, which now accounts for 884,000 of the 1.388 million lives covered, or 63.7% of those covered by health insurance.[168]

General Surgery

8.41 The 2007 Medical Council workforce survey shows there were 166 general surgeons practising in New Zealand. Around 55 to 70 of these are expected to retire over the next five to six years.[169] General surgeons are already on Immigration New Zealand's "Long term Skill Shortage List".

8.42 There has been considerable concern about these figures among DHB management as general surgeons provide the core skill group for smaller provincial hospitals. Without a functioning roster of general surgeons the nature of these hospitals would have to change markedly.

Cardiothoracic Surgery

8.43 In 2000 there were 18 cardiothoracic surgeons active in New Zealand; there were 19 in 2007. The recommended surgeon-to-population ratio for cardiothoracic surgery is 1:250,000. The actual specialist surgeon to population ratio in New Zealand in 2007 was 1:223,000. In Canada, the ratio was 1:100,000 in 2005.[170]

8.44 A recent national review of cardiac surgery services cites a shortage of anaesthetists and registrars as one of the reasons New Zealand has come bottom of a survey of seven comparable countries for heart patients' access to potentially life-saving surgery.[171]

8.45 A review of cardiac surgery services in Wellington found that a series of preventable deaths at the DHB were also due in part to staff shortages, including anaesthetists, cardiologists and registrars, and the resignation of a surgeon.[172]

Otolaryngology - Head and Neck Surgery (ORL-HNS)

8.46 The New Zealand Medical Council's annual workforce survey data in 2000 shows there were 60 specialists practising in New Zealand – one per 64,000 head of population – compared with 72 in 2007 (one per 59,000 head of population). The recommended specialist to population ratio for ORL-HNS is 1:50,000.

8.47 Auckland DHB comments: "[Such] numbers are not that useful as a significant number of the current ORL surgeons are in their 50s and will retire in the next 10 years. The population is ageing and demanding/needing more ORL surgery. Techniques and types of operations available are also increasing. There is likely to be a significant shortage of ORL surgeons in Australia and New Zealand for the foreseeable future. The number of trainees should be increased, but the limiting factors [are] government funding for training posts and suitable training positions."[173]

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[168] Health Funds Association of New Zealand, *Annual Report 2008*.

[169] D Meates (CEO, Wairarapa DHB). "Grim outlook for rural surgery". *One News* 7 May 2007.

[170] C-J Ray. "Training Program for Thoracic and Cardiovascular Surgeons in Canada," *The Japanese Journal of Thoracic and Cardiovascular Surgery*, Volume 53 Number 6, June 2005 (PP 324-327)

[171] Cardiac Surgery Services Working Group 2008. Cardiac *Surgery Services in NZ,* Ministry of Health, Wellington. Available at: www.moh.govt.nz.

[172] J Elliott , I Crozier 2008. *Report on Patients Awaiting Cardiac Surgery: Capital and Coast DHB*. Ministry of Health, Wellington. Available at: www.moh.govt.nz.

[173] Auckland District Health Board. *Career Med: Specialties List*. Available at www.adhb.govt.nz/CETU/cim/specialties/anaesthesia/about.html.

Vacancies

8.48 Vacancy rates are another key indicator of workforce shortages, as well as being a drain on resources.

> *High levels of vacancies affect service delivery through discontinuity in staffing usually resulting in poorer quality of care, recruitment time and costs, high expenditure on temporary staffing (bank, agency and overtime), loss and dilution of skills, time taken for induction and supervision of new staff and a general poor effect on the morale of those staff that stay.*
>
> National Health Service, United Kingdom[174]

8.49 Britain's National Health Service aside, regular vacancy rates for specialists are not readily available. However, in Australia a number of surveys undertaken between 1996 and 2002 indicate average national vacancy rates of between 1% and 10% for particular specialties:

> 1% general surgeons (1996), 1.5% cardiologists (1997), 2% orthopaedic surgeons (1997), 2.8% intensive care specialists (1997), 3% radiation oncologists (2001), 4% anaesthetists (2001), 8.7% emergency care specialists (2002), 10% medical physicists (2000). Psychiatrists in rural Victoria stood out with a vacancy rate of 19.5% (11.8% in metropolitan areas) (1999).[175] South Australia's Minister of Health has indicated an overall specialist vacancy rate of 4% in that state in 2008.[176]

8.50 The Australian Department of Health and Ageing suggested the 10% vacancy rate for medical physicists was an indicator of "considerable shortage" in the specialty.

8.51 A recent survey of 18 specialties in Massachusetts found an overall average vacancy rate of 7.3%, though 10 of those specialties had vacancy rates higher than 10% – a situation described by the Massachusetts Medical Society as "severe market conditions".[177]

8.52 In England, the vacancy rate for National Health Service consultants overall was 3.1% in March 2008, and 0.9% for vacancies that have been open for three months or more.[178]

This is a marked improvement on just four years ago when a NHS consultant vacancy rates (three months or more) stood at 4%. A King's Fund paper commenting on the 2004 figures, pointed out that some individual specialties had "high" rates, particularly psychiatry with a rate of 9.6%.[179]

8.53 Specialist vacancy rates are not published in New Zealand as a part of regular workforce monitoring. Vacancy data sought from all DHBs are summarised in Table 4:

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[174] National Health Service, *Vacancies in NHS England*, 31 March 2008.

[175] Surveys undertaken by the Australian Medical Workforce Advisory Committee (AMWAC), except for oncologists (Royal Australian College of Radiologists, *National Strategic Plan for Radiation Oncology [Australia],* 2001) and medical physicists (Department of Health and Ageing, *Submission to the Productivity Commission Health Workforce Study*, Australian Government 2005). All AMWAC reports available at: www.nhwt.gov.au/publications.asp (AMWAC defines a vacancy as "an approved position for which funding was available and for which active recruitment was being undertaken").

[176] "Recruitment drive for doctors begins", media statement 19 August 2008. (The minister refers to "doctor" vacancy rates, but from the context of the statement it is assumed he is referring to specialists.) Available at: http://www.ministers.sa.gov.au/index.php.

[177] Massachusetts Medical Society 2008, *Physician Workforce Study*. Available at: www.massmed.org (The job vacancy rate is calculated by dividing the number of available job vacancies by the sum of the number of employed and vacancies).

[178] National Health Service, *Vacancies in NHS England*, 31 March 2008. (A vacancy is defined as one which employers are actively trying to fill. The rate is found by dividing FTE vacancies by the number of FTE posts plus vacancies) Available at www.ic.nhs.uk

[179] The King's Fund 2005. *NHS Workforce*. Available at: http://www.kingsfund.org.uk/publications/briefings/nhs_workforce.html

Table 4 Specialist Vacancy Rates Reported by DHBs, 30 September 2008

DHB	No. of established posts	No. of vacancies	Vacancies as a % of established posts
Northland[a]	103.8	8.00	7.7%
Waitemata	312.14	38.49	12.3%
Auckland	Not provided	Not provided	Not provided
Counties Manukau	298.00	29.83	10.0%
Waikato	Not provided	Not provided	Not provided
Tairawhiti	53.19	6.00	11.3%
Bay of Plenty[b]	111.48	9.18	8.2%
Lakes[a]	55.9	5.00	8.9%
Taranaki	48.68	9.00	18.5%
Hawkes Bay	94.42	2.00	2.1%
Whanganui	45.40	12.00	26.4%
Mid-Central	147.36	17.20	11.7%
Wairarapa	36.40	5.00	13.7%
Hutt Valley	95.6	11.2	11.7%
Capital & Coast	244.57	20.10	8.2%
Nelson Marlborough	126.3	1.30	1.0%
West Coast	Not provided	Not provided	Not provided
Canterbury	377.24	27.00	7.2%
South Canterbury	35.03	8.20	24.4%
Otago[a]	145.10	21.8	15.0%
Southland	Not provided	Not provided	Not provided
Total	2330.61	231.3	10.3%

Source: DHBNZ

(a) Data provided directly from the DHB

(b) The BOP DHB provided only the number of vacancies. The established positions were estimated using DHBNZ's data for the BOP DHB as at June 2008 and adding the number of vacancies.

8.54 The official vacancies reported by DHBs show New Zealand's vacancy rates far exceed the rates reported in the United Kingdom and Australia, and most DHB rates surpass the levels that are regarded as "severe" or indicating "considerable shortage" overseas.

8.55 Official vacancy rates, however, 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 has no expectation of successful recruitment). To gain a better understanding of vacancies, the ASMS undertook detailed surveys of senior doctors – mainly clinical directors – in a number of DHBs, and asked them to assess the number of "vacancies" in their departments. The early results are summarised in Table 5. More detailed results are set out in Annex two. A further two surveys (of Southland and Bay of Plenty DHBs) will be available shortly and supplied to the Commission at that point.

Table 5 Specialist Vacancies as Reported by Senior Doctors (mostly clinical directors)

DHBs	Established positions[a]	Vacancies	Vacancy rate[b]	Estimated professional need	
				'Vacancies'	Vacancy rate
Northland (30 Oct)	82.5	17.0	20.6%	Not identified	-
Waikato (20 Aug)	143.7	18.1	12.6%	Not identified	-
Tairawhiti (26 Aug)	46.0	16.0	34.8%	20.0	40.0%
Whanganui (31 Oct)	47.0	15.0	31.9%	18.0	36.0%
MidCentral (21 Aug)	99.0	26.0	26.3%	33.0	31.1%
South Canterbury (26 Nov)	34.6	9.5	27.5%	Not identified	-
Total	452.8	101.6	22.4%	71.0	34.5%

Source: ASMS Vacancy Survey 2008
(a) Some surveys did not cover all DHB services
(b) The number of vacancies as a proportion of established positions.

8.56 A forum in March 2008 involving Central DHBs and unions heard that recruitment and retention of staff, particularly medical positions, were key issues for DHBs, as reflected in Tables 4 & 5.

8.57 The shortages, and difficulties in filling the vacancies, have led to a boom in locum positions. Answers to parliamentary questions show DHBs spent $93 million on locums for senior and junior doctors in 2007, representing a 92% increase since 2002. About two-thirds of the vacancies shown in Table 5 were being covered by locums.

8.58 The increased use of locums has also contributed to an increase in short-term stays of overseas-trained doctors in New Zealand. Temporary registration for doctors rose from 165 in 1990 to 758 in 2003.[180] In 2006 172 registrations for locum specialist post were issued (though this would represent only a portion of the total number of specialist locums)[181].

> *Hospitals often have difficulties filling vacancies when they arise due to a shortage of suitable applicants. The shortage of psychiatrists, anaesthetists and pathologists is particularly acute.*
>
> *Several factors contribute to this shortage including the limited number of trainee positions for medical specialists, and once trained, many medical specialists go overseas due to higher pay.*
>
> Government Career service website: www.kiwicareers.govt.nz

[180] Since 2004 changes in registration categories means there is no reliable way to measure the total number of short-term registrants.

[181] Anecdotal evidence suggests it is common for specialist locum positions to be filled by New Zealand-based specialists who resign from their permanent positions because locum work pay rates are much higher.

8.59 Immigration New Zealand's current "Long Term Skill Shortage List" includes:

> Anaesthetists, general surgeons, intensive care specialists, pathologists, psychiatrists, radiologists, radiation oncologists, renal medicine specialists, palliative medicine specialists and obstetricians and gynaecologists.

Changing Demographics

8.60 New common trends have emerged in the medical workforce of OECD countries in recent years, which may impact on both the supply and demand for health care. While population ageing will contribute to an increased demand for health services, the ageing of the specialist workforce, along with the growing proportion of female specialists and new working patterns, may well contribute to a reduction in supply of specialists.

A clinical director's perspective

Until two years ago we had a large field of exceptional applicants to choose from. This is no longer the case. Even if we provide the security of a permanent appointment to come back to, (ie, the start date 12-18 months away and subject to completion of the overseas time) we have had people who have not returned.

Although we recognise that there is nothing new in the pay gap between New Zealand and Australian specialists, the gap is now so great it is impacting on our ability to recruit. This pay gap affects the specialists who are either very junior (therefore not yet settled into a consultant role) or those senior consultants whose children have grown up and who are now free to move around, unencumbered for social reasons. Both groups are a great loss for New Zealand.

A more immediate concern though, is the gradual drift into private practice. This affects mainly the new to middle-grade consultants. There is a large amount of increasing lucrative private work available. For anaesthesia in particular it is very easy to drop public sessions and make three to four times the money for an equivalent session in private practice.

While this may at first seem to be a "win-win" situation from the narrow perspective of achieving elective surgical volumes, it is disastrous from a long-term perspective. This is as the doctors providing the service are the same doctors that work in the public hospital. There is no untapped extra anaesthetist (in this case) resource to increase the numbers overall. The consequence of this is a run down of the public system which further worsens the recruitment and retention problem.

Dr Vanessa Beavis, Director
Anaesthesia & Operating Rooms
Auckland District health Board

8.61 In 2007 the average age of specialists was 49. In 18 specialties, the average age is 50 or over (see Appendix 2). In 2000, the CTA workforce analysis found that 18% of pathologists were over 60 and 5% of psychiatrists and pathologists were aged 70 or over.

8.62 There is no information available on retirement rates of specialists. While the evidence suggests a fair number of specialists continue working beyond the traditional retirement age, the number of specialists approaching retirement will be another influence on supply over the coming decades.

8.63 Medical Council workforce survey results show specialists are working slightly fewer hours on average (47 in 2005 compared with 48 hours in 2000). This may be a reflection of the ageing workforce (surveys show the average number of hours worked begins to decrease for male doctors from their late-50s onwards.)

8.64 In 2007 women comprised 25% of the specialist workforce, compared with 19% in 2000 and 13% in 1990. Gender statistics for practising registrars indicate the proportion of female specialists will continue to increase (Table 6). Medical Council data show women tend to work fewer hours than men (41 hours, compared with 48 hours for males, in 2005). Census data show 21% of female doctors work part-time, compared to 6% for males.

8.65 The working life contribution for female medical practitioners, when measured in total time worked, is about 80% of that of a male medical practitioner. This tendency of female medical practitioners to work fewer hours, combined with the increase in women in the medical workforce, results in a need to

increase the overall numbers of medical practitioners to obtain the same number of full-time equivalents (FTEs).[182]

8.66 The female medical workforce is thought to have a greater preference than males for both well-organised salaried employment and flexible part-time work. Female doctors are also believed to have a greater interest in family and work-life balance.

8.67 However, HWAC observed that lifestyle and work-life balance aspirations are changing throughout all working populations. "These new aspirations may be more characteristic of generation than gender."[183]

8.68 A "work-life flexibility" survey of doctors carried out by the Australian Medical Association in 2007 indicates "attitudes of the medical workforce are changing in line with societal change" and that doctors are placing greater importance to work-life balance. Eighty-one percent of survey respondents said they would like greater access to flexible working arrangements, the top three arrangements for specialists being flexible work hours, part-time work, and home-based work.

8.69 The survey also found that: "Contrary to popular belief, access to flexible arrangements is not just an issue for female doctors. The demand for flexible working and training arrangements is similar among male and female doctors." Further, older generations of doctors were accessing flexible arrangements in greater numbers than their younger colleagues, indicating they were "just as motivated to find a balance between their personal and professional lives".[184]

[182] Bewley and Bewley 1975. Quoted in Health Workforce Advisory Committee 2005. *Fit for purpose and for practice: a review of the medical workforce in New Zealand. Consultation Document.* Available at www.hwac.govt.nz.

[183] HWAC (2005).

[184] Australian Medical Association 2008. *AMA Work-Life Flexibility Survey*. AMA 2008. Available at: www.ama.com.au/web.nsf/doc/WEEN-7DB7QX/$file/WLF_Report_2008.pdf.

9 THE SUPPLY OF MEDICAL SPECIALISTS: THE PRESSURE POINTS

Training and Recruitment

9.1 The sources of the specialist workforce are (a) from the pool of registrars as they qualify for vocational registration and (b) overseas-trained specialists.

9.2 It takes at least 13 years to produce a medical specialist (17 years on average), comprising six years' undergraduate training, at least two years as a house officer and at least five years training for vocational registration with a college.[185] [186]

9.3 There are losses at each step. The Medical Council's 2007 workforce survey shows that by the third year after graduation, 24% of New Zealand graduates are not practising in New Zealand. Overseas-trained doctors have been employed to fill the gaps. However, retention of these doctors has been poor, with around 70% no longer practising in New Zealand after three years. The high turnover and the cumulative effect of employing overseas-trained doctors to fill the gaps have resulted in an increasing proportion of our registrars coming from overseas. The proportion of female registrars is also increasing – from 38% in 2001 to 45% in 2007 (see Table 6).

9.4 Data are not readily available on the inflows and outflows of registrars. However, the total number of registrars has increased from 1227 in 2000 to 1529 in 2007 – an average annual increase of 43 registrars,[187] which is well below the number of new specialists needed per year.

9.5 There is anecdotal evidence of registrars moving to Australia to take up their first specialist post, signalling increasing future supply pressure on New Zealand's specialist workforce. A number of reports are indicating increasing shortages of registrars.[188] [189] [190] [191] While registrar vacancy rates are not readily available, one DHB (MidCentral) reported an average 16% vacancy rate in 2007 and indicated vacancy rates from 15 other DHBs ranged from 0%-24%.[192]

9.6 Across the Auckland DHBs there are 68 registrar vacancies of about 700 posts (10% vacancy rate) as of December 2008. Within paediatrics the DHBs will begin the year with nine vacancies of 55 posts (16% rate).[193]

[185] Doctors in Training Workforce Roundtable 2006. *Training the Medical Workforce: 2006 and Beyond*, Ministry of Health 2006.

[186] Clinical Training Agency 2001. *The Health Workforce: A training programme analysis*. Ministry of Health, Wellington.

[187] This figure is the net increase, including an unknown number that is added each year, minus the number that gain vocational registration, and minus an unknown number who leave the workforce.

[188] Cardiac Surgery Services Working Group 2008. *Cardiac Surgery Services in NZ,* Ministry of Health, Wellington. Available at: www.moh.govt.nz .

[189] Department of Immigration 2008. *Long-Term Skills Shortage List*. Available at: www.immigration.govt.nz.

[190] M Legge M 2008. *Extended Role of Medical Laboratory Scientists in Diagnostic Pathology*, University of Otago, Dunedin.

[191] A Brown, "Doctor shortage grips town", *Daily Post* 16 Jan 2008. Available at: www.dailypost.co.nz.

[192] MidCentral Health. Memorandum: Workforce Development Strategy – Six Monthly Update. 1 November 2007.

[193] R Nicholson, Director of Paediatric Physician Training, Middlemore Hospital. Correspondence December 2008.

Table 6 Practising Registrars

Year	% Female	% Overseas-trained	Total
2000	n/a	n/a	1,227
2001	38	35	1,242
2002	39	32	1,238
2003	40	33	1,319
2004	42	35	1,338
2005	43	37	1,365
2006	43	40	1,504
2007	45	36	1,529

Source: MCNZ

9.7 Despite the trends in the number of active registrars in Table 6 suggesting an inadequate supply, Table 7 shows that between 2000 and 2007 there were 2203 additions to the vocational register, excluding GPs, which may reflect a high number of specialists recruited from overseas. (Information on the proportions of new registrants sourced from training programmes or through other recruitment measures is not readily available.)

Margins between Specialists' Salary Scales and RMOs

9.8 The SMO Commission's terms of reference require it to consider margins between the salaries of registrars and those of first year consultants. The Association offers advice to senior doctors who have received a job offer from a DHB. Over the last few years many of them have complained that the salary offer they received as a new specialist has been less than they received as a registrar.

9.9 The RMO MECA is a very different document from the SMO MECA with salary steps classified according to hours worked. Registrars in their final year will be anywhere from year 5 to year 10.

9.10 Simply comparing the highest salary available to a registrar for a 40 hour week (10 year registrar working in a non-urban intensive care unit or emergency department (8.1.5 and 8.2.2)) under the RMO collective shows an annual salary of $133, 046 (rising to $135,707 in 2009). This compares with a starting salary of $123,353 as at 1 July 2008 for a first year specialist for a 40 hour week ($128,569 from 1 July 2009). The margin is nearly $10,000 in favour of the RMOs.

9.11 This particular set of circumstances would apply to few RMOs, DHB managers believe that nearly all RMOs would be paid at least two categories above their stated hours (i.e. if an RMO were working a 40 hour week they would be paid as if they were working a 50 to 54.9 hour week or more). This has apparently occurred through the operation of Clause 8.1.2 of the RMO MECA and competition between DHBs for junior staff. It is likely the real margin between the present Step 1 of the specialist scale (around $59 per hour) and many registrars has narrowed to almost nothing. If they are paid at more than two categories above their hours worked it disappears entirely.

Retention

9.12 Medical specialist turnover rates are usually small compared to other workforces. Reports from Australia,[194] Canada[195] [196] [197] and the United Kingdom[198] indicate a turnover rate of around 3.5% per year is the norm, including about 1.5% retirements, with the remainder due to death, emigration and career change.

9.13 There is a paucity of data on turnover rates of New Zealand doctors, but new registrations data show that on average around 315 new specialists join the workforce each year, while the net average increase of specialists over seven years is around only 100 per year. That means about 1500 specialists were lost to the system between 2000 and 2007 (see table 7). This is a crude method of estimating turnover rates, which may explain some of the wide annual fluctuations, but over seven years an annual average of 214 specialists were lost to New Zealand - an average annual turnover rate of approximately 7%.

9.14 Turnover rates in the public sector appear to be even higher. Medical Council data show that in 2006/07 there were 305 additions to the vocational register (excluding GPs), while DHBNZ's data show that between June 2006 and June 2007 the number of specialists employed by DHBs actually fell by 147. Allowing for the possibility that a small number of the new registrants may be employed exclusively in the private sector, and a small number may not be categorised as "specialists", the statistics indicate the DHB turnover rate for 2006/07 may have been up to 400 specialists - or about 12% of the workforce. (While DHBNZ's Health Workforce Information Programme indicates staff turnover rates are collected, DHBNZ was unable to provide the ASMS with specialist turnover rates.)

9.15 Again, doctors that were initially trained overseas appear to have relatively poor retention rates. Medical Council statistics show three years after gaining vocational registration 18% are no longer practising in New Zealand. Currently, 40% of New Zealand's specialists are doctors initially trained overseas; in 2007 50% of the newly registered specialists were initially trained overseas.

We are dealing with serious medical workforce shortages in several different specialties and areas. We are not producing the number of doctors we need ourselves, we are not retaining enough of those we do train and we are not retaining a high enough proportion of international graduates who come to practise in New Zealand.

Prof John Campbell, Chairperson, MCNZ (2007)[a]

… the workforce is retaining fewer young New Zealand-trained doctors due to the high salaries available overseas, the increased mobility of the workforce and the implementation of student loans in 1992. If New Zealand is to meet the national requirement for doctors, in future the country may need:

- more students to enter medicine, and/or
- more overseas-trained doctors to enter the workforce, and/or
- fewer New Zealand-trained doctors to leave the country.

Clinical Training Agency (2001)[b]

If we were able to keep one out of every five doctors currently leaving the workforce, we would gain the equivalent of an extra medical school year intake every 15 years.

Ministry of Health (2008)[c]

a. Medical Council News, November 2007

b. The Health Workforce: A training programme analysis

c. Media release, 30 September 2008

194 Australian Medical Advisory Committee (AMWAC) 2005. *Career Decision making by post-graduate doctors.* AMWAC Medical Careers Surveys 2004. AMWAC Report 2005.3.

195 J Kantarevic. *Income effects and Physicians Labour Supply: Evidence from the Threshold System in Ontario*. Ontario Medical Association and Institute of Labour Studies. Available at: www.wlu.ca.

196 Canadian Institute for Health Information. *Supply, distribution & migration of Canadian Physicians, 2006*, CIHI 2007.

197 B Chan. *From Perceived Surplus to Perceived Shortage: What Happened to Canada's Physician Workforce in the 1990's?* Canadian Institute for Health Information 2002.

198 Medical Workforce Standing Advisory Committee 1997. *Planning the Medical Workforce: Third Report (UK).* December 1997.

Table 7 Trends in New Vocational Registrations (excluding GPs) Compared with Trends in the Number of Active Specialists

Year	Additions to vocational register (new specialists)[1]			Total active specialists	Additional active specialists (to previous year)	National turnover[2]
	NZ	Overseas	Total			
1999/20	-	-	-	2653	-	-
2000/01	139	118	257	2725	+72	-185
2001/02	172	198	370	2723	-2	-372
2002/03	182	122	304	2873	+150	-154
2003/04	175	183	358	2945	+72	-286
2004/05	162	171	333	2940	-5	-338
2005/06	152	124	276	3175	+235	-41
2006/07	152	153	305	3359	+184	-121
TOTAL	+1,134	+ 1,069	+ 2,203	+706 (00-07)	+ 706	-1,497

Source: MCNZ registration data and Workforce Surveys (for active specialist data)

Notes: 1. Excludes GPs
2. Estimates calculated by subtracting additional active specialists (survey data) from total new specialists (registration data). Registration data is for the year to June; workforce survey data is for the year to March.

9.16 From the data available, New Zealand's specialist turnover rate appears to be at least twice that of comparable countries. If New Zealand reduced its annual attrition rate to an average 3.5% over the long term, we would save over 120 specialists a year. The annual increase of specialists would then total around 210 on average, and would amount to around 1.3 specialists per head of 1000 population by 2021.

9.17 The entrenched, long-term shortage of specialists in New Zealand is due in part to decisions made on the supply of doctors over the past two to three decades. The capped number of medical school places was reduced by over 50 in 1982 to 285 per year and remained at that level for 22 years. In 2004 it was increased by 40, and then by a further 40 in 2007. The Medical Training Board has recommended the medical school intake needs to be increased by another 100 by 2012, but in order to ensure sufficient supply of doctors to meet future demand, there will also need to be a number of other improvements, such as an increase in productivity (which is not defined) by around 1% per year and a 20% reduction in medical workforce attrition rates.[199]

9.18 The Government has indicated it will increase medical training positions by 200 over five years starting from 2010.[200]

9.19 However, even the modest effects of the 2004 increase will not flow on to the specialist workforce for another decade or more, increases in productivity (however that may be measured) will be difficult to achieve while staff shortages continue and, as the available evidence suggests, specialist attrition rates need to be reduced by considerably more than 20% to ensure adequate supply.

[199] Medical Training Board 2008. T*he Future of the Medical Workforce: Discussion Paper.* Ministry of Health, Wellington. Available at: www.moh.govt.nz.

[200] Hon Tony Ryall, "More smart solutions to health workforce crisis," media release, 30 September 2008.

Competition from the Private Sector

9.20 As indicated in the previous chapter, the private sector is growing along with the public sector and will require a growing medical specialist workforce.

9.21 Medical Council workforce data show specialists in ophthalmology and dermatology currently spend most of their time in private practice, while specialists in radiology, orthopaedic surgery and pathology spend nearly half their time in private practice. Two of those specialties (radiology and pathology) are on Immigration New Zealand's Long Term Skill Shortage List and there are significant shortages in ophthalmology and dermatology (Table 3, Chapter 8).

9.22 DHBNZ specialist workforce data suggest a recent shift to the private sector. While the number of specialists practising in New Zealand increased by 184 from 2006 to 2007, the number of specialists employed by DHBs fell during that period (see Appendix 3, Figure 9).

9.23 It is very clear that private practice by medical specialists pays considerably better than the public sector. A 2005 study found that the average reimbursement per hour for a surgeon was $1,116 per hour and $372 for an anaesthetists for private cases including the co-payment by the patient if any and the payment by the insurance company.[201] Converting this into an annual salary that can be compared with the public sector is slightly more problematic. Surgical lists are likely to take place for around two days a week for a full-time surgeon and the costs of running a practice including leave and non clinical time would need to be deducted from the figure of upwards of $2 million that this bald calculation produces.

9.24 Much of the private work done by specialists is funded by ACC. In that sense it is publicly funded but privately provided. A direct comparison is difficult but for a first specialist assessment ACC will pay $160 including GST to the contract holder and $110 for a follow up appointment. A simple surgical procedure is costed at $2,500 including GST. An arthroscopy taking about 45 minutes garners around $1,000. A ball park estimate for a surgeon working totally on ACC cases in a provincial centre gives an estimate of an annual income of around $780,000 per year after leave, CME and the costs of running a private practice have been deducted.[202]

9.25 This is a very conservative estimate. ACC rates are assumed to be discounted by 15-25% to full private rates since ACC are "perfect payers", provide some security of volume and try and negotiate down the payments they make.

9.26 Anaesthetists who are working part time in private practice in Auckland estimate that they make $200,000 annually from working one day a week in private for a 40 week year. The conservative estimate is $5000 a day for a 10 hour day with an estimate of 10-12% of gross income deducted for costs.[203]

9.27 Figures for surgeons dealing with insured patients in the main centres may be much higher.

9.28 Opportunities for making high incomes in private practice are greater in some specialities and in some localities. At the North Shore Hospital stopwork meeting anaesthetists and surgeons pointed out that they could make more from working one day in the private sector than they could make from working a week in the public sector and that the balance was tipping further toward the private sector. Employment in a procedure based speciality at a DHB is becoming less attractive in comparison.

[201] Brown P, Windsor J, Law M ' Dollars and sense. Is there a better way to determine private surgical fees in New Zealand?' NZMJ 25 November 2005, Vol.118 no 1226
[202] Personal communication with an Auckland orthopaedic surgeon, working in a private provincial centre.
[203] Email conversation with four Auckland anaesthetists.

International Competition

9.29 As indicated earlier in Table 3, there are fewer than 20 specialists practising in some specialties, such as vascular surgery, neurosurgery and paediatric surgery. In this context, only a few specialists opting to emigrate can have a major impact on health services. This was illustrated in the high-profile case in July 2007 when a paediatric oncologist left Wellington Hospital for a position in Australia, forcing the hospital's paediatric oncology unit to stop admitting new patients. It took almost a year-and-a-half for the specialist to be replaced.

9.30 There are no statistics available specifically covering the number of medical specialists leaving the New Zealand workforce. However, the above indications of a high turnover of specialists are reinforced in other measures.

9.31 An OECD paper conservatively estimates 29% of New Zealand doctors are working overseas, giving New Zealand the second-highest expatriation rate in OECD countries (behind Luxemburg).[204] A survey by the Association of Salaried Medical Specialists found that in the 18 months to July 2007 New Zealand lost at least 80 specialists to Australia – the equivalent of a senior medical specialist workforce at a regional hospital.[205]

9.32 Many countries around the world with ageing populations are also facing increasing demands for health services, driving an increasingly competitive global labour market for medical skills.

9.33 The Health Workforce Advisory Committee report, Fit for Purpose and for Practice,[206] comments:

> *Most countries have responded to rising demand by significantly increasing investment in medical education and increasing medical student numbers. They also seek to improve employment terms and conditions in order to improve retention of qualified doctors. This may include reducing hours of work and increasing remuneration.*
>
> *Aggressive recruitment of suitably trained and experienced overseas-trained doctors is occurring in many countries.*

9.34 The international "brain exchange" of doctors is useful in that it facilitates the sharing of knowledge, experience and research. The current circumstances in New Zealand mean there are also significant downsides and when the dependency on overseas-trained doctors becomes too high, as is clearly the case in New Zealand, we are putting ourselves in a vulnerable position in view of the increasing international competition to attract health professionals.

> *Given the relative small size of its health workforce and its heavy reliance on immigration, a sudden change in the international migration flows, which could result from policy changes in OECD countries beyond the control of New Zealand authorities, could have a dramatic impact on New Zealand.*
>
> – Zurn, Dumont, OECD 2008

9.35 Attracting the specialists that we need will most likely come at an increasing cost, with increasing difficulties to attract the best skills.

9.36 Secondly, and perhaps even more importantly, in order to compete more effectively in the global market, New Zealand needs to improve the critical issue of retention of its doctors, in particular its overseas-trained doctors.

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[204] P Zurn, J-C Dumont. *Health Workforce and International Migration: Can New Zealand Compete?* OECD Health Working Paper No 33, 2008.

[205] Association of Salaried Medical Specialists (ASMS), Survey Summary, 29 July 2007. Available at: www.asms.org.nz.

[206] Health Workforce Advisory Committee 2006. *Fit for Purpose and for Practice*, (Advice to the Minister of Health). May 2006. Available at: www.hwac.govt.nz.

9.37 Medical Council workforce survey results shows that fewer than t 50% of doctors from overseas are retained in New Zealand in the year immediately after registration, dropping to just under 33% in the third year after initial registration.

9.38 To have such a large portion of the workforce turning over so rapidly has a number of flow-on effects, including the lack of continuity of care, added pressure on colleagues, disruptions to health teams and networks, and costs in terms of recruitment and training.

9.39 The practical reality of New Zealand's situation is that we have no option but to continue to depend on a large proportion of overseas-trained specialists, at least in the short- to medium term.

> *…the sustainability of New Zealand health workforce policy is probably not so much jeopardised by the large reliance on immigration but rather by the failure to retain international health workers migrants in New Zealand on the medium and long term.*
>
> Zurn, Dumont, OECD 2008

9.40 There is a broad range of "push" and "pull" factors that motivates specialists to leave New Zealand. Key factors identified by delegates at the ASMS Annual Conference 2008 included "onerous" on-call hours, shortages of junior doctors as well as senior staff (resulting in more work for senior doctors), lack of administrative support, lack of real non-clinical time, adversarial attitudes from management, unstable staffing with high dependence on locums, time for mentoring young doctors, increasing numbers of staff working part-time putting more pressure on full-timers, as well as remuneration.

9.41 The literature, including the examples from Canada featured later in this paper, also points to personal and family factors. Generally, the more independent and career-minded the person, the more open they are to moving. The Canadian studies found that, while remuneration is one of many of the push and pull factors, it is a key one.

> *Despite expressions of discontent with involuntary long hours of work, or inadequate social infrastructure, research capacity or social amenities, discussion invariably settles on relative incomes as the chief determinant of migration…"*
>
> Benarroch & Grant 2004

9.42 The support for industrial action by ASMS members during the MECA negotiations indicates pay and conditions in New Zealand are also key factors in many specialists' career decisions. Feedback from ASMS members suggests the issue of remuneration is not merely a matter of how much they are paid but also how it impacts on other factors that determine the ability of their DHB to recruit and retain staff, which in turn impacts on the conditions in which they work.

9.43 A document overviewing Ministry of Health and DHB workforce development activities lists recruitment and retention activities as:[207]

- Establishing national advertising and branding campaigns.
- Implementing career pathways and co-ordinated professional development programmes.
- Developing strategies to train and recruit under-represented groups within the health workforce (Māori, Pacific, Asian workforces).
- Delivering health career promotion in schools.
- Supporting new staff through the transition from training to practice.
- Supporting the development of career pathways for the development the unregulated workforce.

(More details are provided in Appendix 1.)

[207] Ministry of Health. *Health Workforce Development: An overview*. April 2006. Available at: www.moh.govt.nz.

9.44 Missing from the above list[208] is a response to the pressing recruitment and retention issue summed up by the Health Workforce Advisory Committee:

> *The international labour market for medical practitioners is becoming increasingly competitive, with New Zealand losing many practitioners to other countries able to offer better remuneration and working conditions.*
>
> HWAC 2006

9.45 The need for New Zealand to become more competitive to recruit and retain its medical professionals is well recognised. This, for example, from a Ministry of Health paper:

> *International competition for skilled workers is projected to increase due to the changing demographics and labour market conditions across OECD countries. Relying on immigration from less developed economies raises issues of ethics and cultural appropriateness, and is unlikely to be a sustainable solution to addressing workforce shortages. Also, other OECD countries will continue to lure New Zealand's skilled workers overseas (irrespective of non-poaching agreements).*
>
> *The predominant focus for workforce development has been on increasing participation by attracting more people into existing disciplines with their corresponding skill mix. In future the constraints on labour supply will necessitate a much greater focus on improving the performance and productivity of the available workforce. Competitive remuneration and attractive working conditions, satisfying careers and a positive work environment will be vital to maximise retention.*
>
> Health Workforce Development 2006[209]

9.46 Another Ministry document makes a similar observation:

> *In developed countries the rising demand for health workers may mean that wealthy countries offer even higher salaries or more attractive working conditions to attract workers. NZ will need to remain competitive. We rely heavily on overseas trained doctors...and the overseas-trained doctor market will become more competitive.*
>
> Long Term sector Plan Overview 2007:[210]

9.47 Yet another Ministry document suggests New Zealand has to compete:[211]

> *These cost increases reflect that New Zealand competes in an international market for doctors and nurses.*
>
> Health and Independence Report 2007

9.48 …as does the former Minister of Health:[212]

> *Securing a flexible and adequately supplied health workforce will also be critical to the future of health care – our workforce is ageing, future workforce shortages are predicted globally, the health workforce has become increasingly specialised, and labour costs continue to rise as we pay internationally competitive wages. Workforce shortages will be the key driver of change in the way we deliver health services.*
>
> "Leading the health sector" speech, May 2008

9.49 Despite the recognition that New Zealand must compete internationally to recruit and retain its specialists, and despite the range of activities underway in New Zealand that come under the banner of "recruitment and retention", there are as yet no effective measures in place to ensure New Zealand is indeed competitive, especially with Australia.

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[208] The list outlines current activities. In a latter part of Ministry of Health paper, the need to provide competitive remuneration and working conditions for New Zealand health professionals in the face of an increasingly competitive international market for skills is acknowledged, as noted later in this paper.

[209] Ministry of Health. *Health Workforce Development: An overview*. April 2006. Available at: www.moh.govt.nz.

[210] Ministry of Health 2007. *Long Term Sector Plan Overview*. Unpublished.

[211] Ministry of Health 2007. *Health and Independence Report 2007*. Available at www.moh.govt.nz.

[212] Hon David Cunliffe, "Leading the health sector". Speech to a health leadership forum, Wellington, 6 May 2008. Available at: www.beehive.govt.nz/speech/leading+health+sector.

10 AUSTRALIA

10.1 In Australia, where nearly a third of medical specialists were 55 and over in 2005,[213] existing or emerging shortages have been highlighted across the medical workforce,[214] and an estimated 150,000 more staff across the board are required to meet health services delivery in the next five years.[215] Australia also happens to have the second-highest rate of dependency on foreign-born doctors in the OECD (behind New Zealand).

10.2 Not surprisingly, most of the 29% of New Zealand's doctors working overseas are in Australia. Geographical proximity, cultural similarity, higher salaries and other considerably more favourable terms and conditions of employment all contribute to this emigration. Movement between the two countries is also facilitated by transnational medical colleges that set up similar requirements for post-graduate medical training.[216] Recently Dr Mason Stevenson, President of the Australian Medical Association in Queensland commented that New Zealand doctors were desirable in Australia because of the high standard of training in New Zealand and added that "It is somewhat ironic that despite your medical workforce shortages, New Zealand doctors are still attracted to come and work in Australia, we welcome them with open arms to help us with our medical shortages."[217]

10.3 The total number of New Zealand doctors moving to Australia (settlers, and permanent and long-term stays) is estimated at around 280 per year for the period 2002-2006. But while Australia is the major destination for New Zealand doctors, the converse is not true. In 2001 there were only 180 Australian-born doctors living in New Zealand.[218] Significantly, Australia has a low expatriation rate of doctors.[219]

10.4 An International Labour Organisation (ILO) paper on international migration of health workers says "the possibility to enhance earnings remains a pivotal factor in explaining the propensity to migrate".[220] The lure of Australia is further enhanced by the fact that the path is already well-trodden. As the ILO paper points out: "once migration pathways are established they will stimulate further migration."

New Zealand's Double Disadvantage

10.5 New Zealand, then, is doubly disadvantaged. Firstly, not only do we need to import specialists to meet our growing health demands, we also need to import them to fill the gaps left by those who have departed for Australia and other countries. In 2007 40% of practising specialists were overseas-trained, compared with 35% in 2000. In 2007 1,065 new international medical graduates (IMGs) were registered in New Zealand, compared with 299 new New Zealand graduates.

10.6 Secondly, we are competing with Australia for international medical graduates from the same areas of the world, but with inferior conditions to offer. In 1996 doctors from the United Kingdom and South Africa comprised 67% of the immigrant medical workforce, but the global competition for doctors saw that proportion decrease to 56% by 2006, leading New Zealand to become more dependent on a broader range of countries, particularly from southern Asia.[221] Australian medical immigration trends are following a similar pattern.[222]

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[213] Australian Institute of Health and Welfare, *Australia's Health 2008: Expenditure and Workforce*. Available at: www.aihw.gov.au.

[214] Australian Health Ministers' Conference 2004. *National Health Workforce Strategic Framework*. Available at: www.nhwt.gov.au.

[215] S McKernan. Address to Conference: Workforce Action: Ready for the Future, Wellington, 28 June 2007.

[216] P Zurn, J-C Dumont. *Health Workforce and International Migration: Can New Zealand Compete?* OECD Health Working Paper No 33, 2008.

[217] *NZ Herald* online, 23 December 2008.

[218] Ibid.

[219] Ibid.

[220] S Bach, *International Migration of Health Workers: Labour and Social Issues*. International Labour Office, Geneva 2003.

[221] A World Health Organisation Survey of health professionals in South Africa found that of those considering leaving the country, 52% considered the United Kingdom as a destination, 10% Australia, 9% the United States, 7% Canada and 5% New Zealand. (*Migration of Health Professionals in Six Countries: A Synthesis Report*, WHO 2004).

[222] DS Saxon, "The global workforce shortages and the migration of medical professions: the Australian policy response". *Aust New Zealand Health Policy. 2008; 5: 7.* Available at: www.pubmedcentral.nih.gov.

Potential for Redress

10.7 With so many New Zealand doctors working in countries like Australia and other OECD countries (equivalent to about 50% of foreign-born doctors working here)[223] there is a potential for New Zealand to both address shortages and reduce dependency on overseas doctors in a relatively short time through an effective recruitment and retention strategy which includes internationally competitive terms and conditions of employment.

10.8 A number of countries are already taking measures to lure back those doctors that had settled abroad. In Canada, for example, a repatriation programme has been introduced for Canadians who had undertaken a postgraduate training programme in the United States[224] and increases in payments to physicians correlate to reductions in migration (see "Case example: Canada").

10.9 India, a country "in dire need of medical specialists" and the fourth-largest source of overseas doctors registered in New Zealand, has recently decided to recognise graduate medical degrees from Britain, the US, Canada, Australia and New Zealand. Until now, Indian doctors with an undergraduate degree from India but a graduate degree from another country were not allowed to practise in India.[225]

10.10 The unavoidable reality is that the New Zealand DHBs have no option but to operate and compete in an Australian medical labour market if they are able to recruit and retain a workforce which is able to deliver on their statutory, contractual, policy and other obligations. To some extent this has always been the case with the proximity of the two countries, common language, and common education and training systems.

10.11 But there has been a qualitative change since the pattern of very large salary settlements for staff specialists beginning in Queensland in 2006 (which is currently being re-negotiated) has significantly widened the salary gap between the two countries. The significance of the Australian threat is that such are their medical shortages that they could recruit the entire specialist workforce in New Zealand and still not fill their vacancies.

Key Features of Australian Settlements

10.12 In recent years there have been two broad patterns of collective settlements in Australia. The first, more modest but still well in excess of New Zealand, were in New South Wales and Victoria. The second (Queensland, Western Australia and South Australia) were considerably higher. There is a high level of probability that the magnitude of the second pattern will at some point impact significantly on the states in the first. There are obvious cost of living differences between Australia and New Zealand but these need to be qualified by the following factors – (a) this paper uses New Zealand dollars for New Zealand and Australian dollars for the various states referred to; (b) the cost of living differences are most pronounced in Sydney and Melbourne whereas the threat to New Zealand is Australia-wide and more so outside New South Wales and Victoria; and (c) the considerable impact of salary sacrifice in Australia (discussed further below).

10.13 There are two main forms of employment for specialists in the Australian public hospitals. The first are 'staff specialists' who are salaried and are predominantly physicians, paediatricians, psychiatrists and anaesthetists. The second are 'visiting medical officers' who also work in the private sector and are engaged as independent contractors in the public sector (in some states they are covered by the

Progress in Queensland

On 2 April 2008 ASMS Executive Director Ian Powell met Susanne Leboutillier, head of the medical workforce section in Queensland Health (Department of Health) to get an appreciation of her assessment of the impact of the significantly enhanced terms and conditions of employment in the Queensland settlement on recruitment.

Her assessment was that the settlement has proved to be very effective. This is most evident with regard to 'critical vacancies', which are vacancies so serious that if they are not filled services would close down. She believed critical vacancies now no longer existed and that hospitals and services were no longer under threat of closure.

Furthermore, specialists were returning to the public system from the private sector. She also believed retention of specialists had improved. For example, there are more specialists in their mid-50s staying on rather than departing (eg to the private sector or retiring early). The rural city of Mackay was cited as an example that previously was in a critical situation but now was recruiting specialists from other Australian states.

[223] Zurn, Dumont (2008).

[224] S Simoens, J Hurst, *The Supply of Physicians Services in OECD Countries*, OECD Health Working Paper No 21, OECD 2006.

[225] *Chronicle of Higher Education*, 28 March 2008. Available at http://chronicle.com.

industrial relations legal jurisdiction). They are primarily in the surgical and diagnostic specialties. In addition to their work in the large Australian private sector, they also earn in the public sector considerably more than staff specialists. However, while conscious of the attraction of visiting medical officer positions, when the Australian medical labour market is discussed in this paper it is largely with reference to staff specialists, particularly where Australian collective agreements (generally known as state awards or certified agreements; or, in the case of Victoria, the Medical Remuneration Heads of Agreement).

10.14 The salary structure for staff specialists in Australia differs from that in New Zealand. In all states there is a base salary scale (usually around seven to nine steps compared with the 15-step scale in New Zealand) for a 40-hour week. But there are also standard enhancements in the former of universal additional allowances. In most states these come under the heading of 'private patients in public hospitals' (a distinct feature of the Australian health system) usually in the form of four schemes. The first scheme is essentially a supplementary allowance in lieu of seeing private patients in public hospitals and paid out to all staff specialists except those on a higher remunerating scheme). In comparisons between Australia and New Zealand in this paper the first-level scheme (universal except where on a higher scheme) is added to the base salary. An exception is South Australia where the supplementary allowance is in the form of an 'attraction and retention allowance'. Queensland has moved to a system of geographically based supplementary area allowances.

South Australia

10.15 For New Zealand, with such a sizeable portion of its medical workforce practising in Australia, the task of attracting back New Zealand doctors – and in fact retaining those we still have – recently became more of a challenge with South Australia's launch of a recruitment drive to lure specialists to the state with a new settlement offering pay rises of up to 75%. The initial targets are Victoria and New South Wales (where most Australian-based New Zealand specialists practise), but there will undoubtedly be an impact on New Zealand.[226]

10.16 This three-year settlement, effective from April 2008, in South Australia strengthens and enhances the benchmark in Australia, along with both Queensland and Western Australia. It includes a new "attraction and retention" allowance in addition to a 25% increase in base salaries in the first year, rising to a 34% increase by the third year.

10.17 Even before South Australia's move, the earnings gap between Australia and New Zealand has been significant, with specialists in Australia earning 50% to 100% more than their counterparts in New Zealand while working fewer hours (45 hours per week on average compared with 47 hours in New Zealand).

10.18 Table 8 summarises the effects of South Australia's full three-year settlement, including the attraction and retention allowance, compared with the New Zealand specialist salary scale based on the rates as at July 2009.

[226] P Akerman, E Hannan, "State to lure in doctors with lure of double pay", *The Australian*, 20 August 2008. Available at: www.theaustralian.news.com.au.

Table 8 Relative Remuneration of Salaried Specialists in South Australia

Specialties	South Australia		New Zealand
	Level 1 ($A)	Level 9 ($A)	Steps 1,9 & 15 ($NZ)
All specialties (except those listed below)	$213,066	$280,747	1: $128,596 9: $164,852 15: $195,441
Emergency Medicine & Paediatric Emergency	$273,708	$360,652	1: $128,596 9: $164,852 15: $195,441
Anaesthesia & Intensive Care	$245,846	$323,939	1: $128,596 9: $164,852 15: $195,441
Rehabilitation	$225,358	$296,944	1: $128,596 9: $164,852 15: $195,441

Source: Schedule 1 (1.1) and Clauses 7 and 26 of South Australian Department of Health Salaried Medical Officers Enterprise Agreement, 2008

Queensland

10.19 Queensland is significant both because it was the first state to significantly enhance the terms and conditions of employment for staff specialists and also the main reason why. This second factor has important lessons for New Zealand in that it arose out of the controversy over patient deaths due to the gross negligence of Dr J Patel at Bundaberg Hospital. This led to a number of inquiries and highlighted the risks to patient care and safety when a health system suffers a serious recruitment and retention crisis as Queensland did. While New Zealand has fortunately not experienced anything as devastating as the Bundaberg tragedy, we have had our own experience of what can happen when a medical workforce shortage crisis effects recruitment processes with the serious medical errors arising from the sub-optimal clinical conduct and standards of Dr Hasil when at Wanganui Hospital.[227]

10.20 The Queensland settlement is contained in the Medical Officers' (Queensland Health) Certified Agreement between the Queensland Department of Health and the Australian Salaried Medical Officers Federation and Queensland Public Sector Union of Employees, and registered by the Queensland Industrial Relations Commission. The Agreement expired on 31 August 2008 and is currently being re-negotiated by the parties. However, much of the remuneration benefit was delivered initially through a system outside the Agreement known as 'Option A', a universal allowance in effect in lieu of private patients but now through supplementary area allowances.

10.21 There are three areas where specialists are employed which attract this supplementary allowance – (1) 50% loading for Brisbane, Sunshine Coast and Gold Coast; (2) 55% loading for Toowoomba, Townsville and Cairns; and (3) 60% loading for all other areas. There is a fourth area which includes Mount Isa and Torres Strait but specialists are not employed there.

10.22 Table 9 below is based on information provide by the Salaried Doctors Union Queensland (part of the Australian Salaried Medical Officers Federation) and compares base salaries, including the area allowances, of Queensland's seven step scale with New Zealand. It excludes entitlements to the continuing medical education allowance (part as part of salary rather than reimbursement of expenses incurred which is discussed further below) and the option of a motor vehicle (or cash out payment ranging from $19,000 to $23,000(A).

[227] 'Dr Roman Hasil and the Whanganui District Health Board 2005-2006: A Report by the Health and Disability Commissioner' available at www.hdc.org.nz.

Table 9 Comparative Staff Specialist Full-Time Salaries in Queensland Areas

	Area 1 ($A)	Area 2 ($A)	Area 3 ($A)	New Zealand ($NZ), July 2009
Level 1	$195,734	$202,258	$208,783	$128,596
Level 7	$227,279	$234,847	$242,431	$155,787

Western Australia

10.23 In Western Australia staff specialists (described as 'consultants'), and other salaried doctors, in metropolitan Western Australia are covered by the Department of Health Medical Practitioners (Metropolitan Health Services AMA Industrial Agreement (registered by the Western Australian Industrial Relations Commission on 7 February 2008). This Agreement takes effect on the date of registration and expires on 30 September 2010 (there is a commitment in the Agreement to commence the next negotiations by 1 April 2010). The core full-time consultant salary (for a 40-hour week) comprises two key elements – (i) the base salary (Clause 27 and Schedule 1) and (ii) the Private Practice Arrangement A allowance of, effective from 1 October 2009, $84,041(A), currently $71,394 (Clause 29).

10.24 The salary details of this agreement are outlined in Table 10 below:

Table 10 Relative Remuneration of Salaried Specialists (consultants) in Western Australia, 1 October 2009

	Base Salary	Private Practice Arrangement A	Total ($A)	New Zealand ($NZ)
Level 1	142,205	84,041	$226,246	$128,596
Level 9	210,102	84,041	$294,143	$164,852

New South Wales

10.25 In New South Wales staff specialists are covered by the New South Wales Staff Specialists (State) Award negotiated by the Department of Health and the Australian Salaried Medical Officers Federation (there are also supplementary determinations linked to private practice arrangements and agreed policy directors covering training, education and study). That award expired on 30 June 2008. A new award has been negotiated and settled although the new document has not been officially registered by the Industrial Commission. However, it includes three salary step increases each of 3.9% effective on 1 July 2008, 2009 and 2010.

10.26 Table 11 below is a strict 40-hour per week salary comparison and is based on the expired award with the estimated rates for the new award also included. In the award there is a 'special allowance' (17.4%) paid to all staff specialists which covers all on-call remuneration and hours above 40 per week. But, in Table 11, this special allowance is removed for the purpose of achieving a truer comparison with New Zealand. However, Table 11 includes the basic private practice allowance because it is paid to all staff specialists whether or not they see private patients.

Table 11 Recalculated Comparative Staff Specialist Full-Time Salaries in New South Wales

	Estimated Total Salary Step and Private Practice Allowance 1 July 2007 ($A)	Estimated Rates effective on 1 July 2009 (and 1 July 2010) ($A)	New Zealand July 2009 ($NZ)
Step 1	$146,713	$158,303 (164,477)	$128,596
Step 5	$181,048	$195,351 (202,969)	$146,724
Senior Specialist (equivalent to NZ Step 8); 3 years on Step 5 required before advancement	$198,214	$213,873 (221,358)	$160,319

Victoria

10.27 Unlike other states, staff specialists and other health professionals working in public hospitals in Victoria are not employed by the state department of health (or equivalent). Instead they are covered by local single hospital certified agreements. However, the Department of Human Services negotiates with the Australian Salaried Medical Officers Association (closely aligned with the Victorian Australian Medical Association), a Medical Remuneration Heads of Agreement, the contents of which are subsequently incorporated into the certified agreements. The current Heads of Agreement commenced in July 2006 and included three salary increases in July 2006, January 2007 and July 2008. This Agreement is currently the subject of negotiations between the parties. A new provisional agreement has been reached which is subject to ratification by medical practitioners. If ratified the salary rates, as well as the on-call, continuous duties, and in lieu of private practice allowances, will increase by 7.5% effective on 1 December 2008 (further 3.24% increases in December 2009, 2010 and 2011).

10.28 The full-time (40-hour) salary scale comprises, in effect, nine annual steps made up of three designated as 'specialist' and six as 'senior specialist'. There are also higher categories of 'principal specialist' and 'executive specialist' but which are discretionary and based on range of rates arrangements making them inapplicable for comparison with New Zealand. Table 12 below recalculates the 'specialist' and 'senior specialist' rates for the purpose of comparison with New Zealand.

Table 12 Recalculated Comparative Staff Specialist Full-Time Salaries in Victoria, July 2007

	Base Salary (includes 10% continuous duties allowance but excludes 10% on-call allowance)	Allowance in lieu of Private Practice (20% of base salary including both continuous duties and on-call allowances)	Total ($A)	New Zealand ($NZ) July 2009
Level 1	110,670	23,443	$134,113	$128,596
Level 9	145,722	30,868	$176,591	$164,852

Summary of Specialist Salaries Comparisons

10.29 The differences in base or core full-time equivalent salaries between Australia and New Zealand for the first and top (or equivalent for New Zealand) are summarised in Table 13 below (dollars are in local Australian or New Zealand currencies as applicable) as of 1 July 2009:

Table 13 Summary of Full-Time Equivalent Specialist Salaries, Australia and New Zealand

	Step 1	Step 7	Step 8	Step 9
Western Australia	$226,246			$294,143
South Australia*	$213,066			$280,747
Queensland**	$195,734	$227,279		
New South Wales***	$158,303		$213,873	
Victoria#	$134,113			$176,591
New Zealand	$128,596	$155,787	$160,319	$164,852

* Minimum level only; three higher levels for specified specialties at each step

** Minimum level only; two higher area levels at each step; Agreement currently under re-negotiation

*** Further 3.9% increase in 2010 to all New South Wales steps

Currently under re-negotiation (employer offer for settlement undergoing ratification process)

10.30 The above comparisons are based on Australian staff specialist scales whose comparable top step is between seven and nine with advancement through effectively automatic. On 1 July 2009 New Zealand will have a 15-step scale with the top step at $195,441 which will only exceed one of the much shorter scales in Table 13 (Victoria) and still less than Step 1 of three of the five states covered.

Salary Sacrifice

10.31 To fully understand the Australian medical labour market it is necessary to understand their unique salary sacrifice system- not in order to introduce it to New Zealand but to appreciate its effect on widening the remuneration gap between the two countries. Its impact cannot be captured in comparisons between Australian and New Zealand collective agreements except to emphasise that the gap increases considerably depending on the individual's personal financial position.

10.32 Public hospitals in Australia are for tax purposes listed as "public benevolent institutions" (PBIs). This means that they enjoy favourable tax treatment in terms of fringe benefit tax (FBT). In normal circumstances employers are liable to pay FBT on the value of items provided to employees in "kind" instead of salary. However, PBI status means that public hospitals are exempt from paying FBT up to a specified limit per employee. Consequently, public hospitals across Australia allow employees to salary package a range of benefits (eg, mortgages, school fees, motor vehicles).

10.33 The practical effect of this is that an employee who packages up to the limit permitted by the Australian Tax Office makes a significant tax saving; eg, an employee may direct up to $9095 per annum of pre-tax income into his/her mortgage and will not be required to pay tax (either FBT or income tax) on that amount. In all states, except New South Wales, the employee enjoys the full benefit of this tax saving. In New South Wales, the employee is required under the current industrial agreement to share the tax saving 50:50 with the employer.

Continuing Medical Education Expenses

10.34 One of the most fundamental requirements of senior medical and dental officers is to undertake ongoing continuing medical education. Some of this requires the taking of leave largely for the purpose of attending conferences and other educational meetings. Clause 36 of the MECA requires DHBs to "recognise the importance of actively encouraging their employers [senior medical and dental officers] to undertake professional development and education." Next Clause 36.1(a) states that the DHB "requires employees to be fully informed, and where possible, practised in developments within their profession." To facilitate this Clause 36.1(a) provides an annual entitlement of 10 working days (pro rata). To support this leave sub-clause (b) provides for an entitlement of up to $16,000 per annum (pro rata) for the reimbursement of actual and reasonable expenses.

10.35 While the leave entitlement is generally standard in both countries (although New South Wales has 25 days), New Zealand falls behind Australia in the reimbursement of expenses as summarised by Table 14 below as of July 2009:

Table 14 Comparison of Reimbursement of CME Expenses

State or Country	Annual Amount (dollars according to domestic currency)
New South Wales	$30,000*
Western Australia	$21,218** ($21,855 in October 2009)
Queensland	$20,000**
Victoria	$20,000
South Australia	$17,000 ($20,000 in April 2010)
New Zealand	$16,000

* Part of new state award settlement although contained in a separate determination issued by the NSW Industrial Commission

** Paid out fortnightly as a supplementary salary allowance regardless of whether leave is taken and the level of expenses incurred. It is taxed however.

Remuneration for Rostered After-Hours Duties and Responsibilities

10.36 In New Zealand remuneration for rostered after-hours duties and responsibilities is recognised in two different ways under the MECA. The first is the average hours worked. Clause 12.3(a) provides for them to be paid at an enhanced rate of time-and-a-half (T1.5) although higher rates apply in Waitemata and Bay of Plenty DHBs (T2 and around T3 respectively). Second, there is an availability allowance as a retainer for being on-call usually paid as a percentage of base salary. Each DHB has its own formula. This is addressed in Clause 13 with the separate DHB provisions contained in Schedule 1. There is the capacity to combine these two systems into one arrangement based on agreement between the particular DHB and the ASMS. Two DHBs have gone down this path – Hawke's Bay and Tairawhiti.

10.37 Comparisons with Australia are difficult because of variations between states and the absence of a system comparable to New Zealand's. As a generalisation working on rostered after-hours call duties is more onerous than Australia because of the significant difference in and consequential advantages of critical mass. Compared with New Zealand, specialists in Australia are likely to be on-call less often, work less hours when on-call, and have more support (eg, senior registrars) when on-call.

10.38 Table 15 below compares in summary form the entitlements in both countries (the Australian rates outlined are from the previously discussed applicable certified and enterprise agreements and awards with the exception of Victoria which is taken from the AMA and Melbourne Health Hospital Specialists Agreement which covers around 400 senior doctors and has some weight within the state):

Table 15 Comparison of Remuneration for Rostered After-Hours Call Duties and Responsibilities

	Hours Worked	Availability
New South Wales	17.4% allowance incorporated into standard base salary (excluded from Table 11); also discretionary capacity for an additional 5% or 10% for "onerous" hours in excess of 40 per week	No separate provision; incorporated into 17.4% allowance
Queensland	*Monday-Friday*: T1.5 for minimum of 2 hours for first recall and minimum 1 hour for each subsequent recall; *Saturday*: T1.5 for first 3 hours and T2 thereafter; *Sunday*: T2	Allowance of 12% of Step 7 (staff specialist) hourly rate for each hour on-call
Victoria	T1.5 for weekdays and T2 for weekends (plus one hour travelling time for each call-back)	10% allowance (excluded from Table 12)
Western Australia	Minimum of 3 hours for each call-back: T1.5 weeknights until mid-night (T1.75 on Sunday and T2 between mid-night and 6am)) increasing to T2 for every extra hour above 3	An allowance of 18.75% of Step 5
South Australia	T1.5 for first three hours (increasing to T2 for extra hours) except for Sundays (T2); also an enhanced 'immediate recall rate' where frequency is greater than 1:6 and must return within 30 minutes – payment is to be for full 3 hours even if hours worked less than 3 per recall	8.5% allowance where frequency is greater than 1:5; 7.5% allowance for 1:6; 5% allowance for remainder
New Zealand	T1.5 (T2 and above in Waitemata and Bay of Plenty)	Variable allowance commonly ranging between 5-12%.

Superannuation

10.39 In New Zealand subsidised superannuation is provided for in Clause 16 of the MECA. The standard entitlement is in Clause 16.2. In summary, DHBs are required to pay a matching subsidy of up to 6% of the senior medical/dental officer's gross taxable salary. Although the matching subsidy is dollar for dollar, the employee's benefit is in effect less because of the obligation to meet the tax liability. Some senior medical and dental officers (from among those employed prior to 1993) are instead members of the National Provident Fund or Government Superannuation Fund.

10.40 Australia provides a significantly superior superannuation entitlement through federal legislation requiring all employers to contribute 9% of "ordinary time earnings" (roughly the employee's wage, plus a raft of allowances and other matters, including the private practice allowances for staff specialists) on behalf of all employees. Employees are not required to contribute. The legislation initially did not apply to superannuants of certain approved funds (generally state government funds). However, the federal legislation required that by 2008 all superannuation contributions comply with the 9% in full.

10.41 Queensland is an exception in that public sector employees can take advantage of a 12.75% employer contribution if they contribute 5% to the state government superannuation fund. This subsumes the federal 9% employer contribution.

Annual Leave

10.42 Annual leave is one of the few areas where the New Zealand entitlement is superior to Australia. Clause 23 of the MECA provides an entitlement of six weeks. The standard is four weeks (five in New South Wales and also Victoria providing one is available for recall) with the capacity in some states to increase up to five weeks subject to the nature of on-call duties and responsibilities.

10.43 However, Australia does have superior long service leave provisions as outlined in Table 16 below compared with the variable and limited entitlements in New Zealand (Schedule 3 of the MECA):

Table 16 Long Service Leave Comparisions

State and Country	Long Service Leave
New South Wales	2 months for first 10 years; then 5 months for each subsequent 10 year
Western Australia	13 weeks after 10 years; then 13 weeks for each subsequent 7 years
Queensland	13 weeks after 10 years
Victoria	6 months after 15 years; then 2 months for each subsequent 5 years
South Australia	9 days per annum to be taken after 10 years; increasing to 15 days per annum after 16th year
New Zealand	2 weeks after every 10 years: (Waitemata, Counties Manukau, Lakes, Tairawhiti, Hawke's Bay; Wairarapa, Hutt Valley, Capital & Coast, West Coast, South Canterbury, Otago); 4 weeks after 20 years (Taranaki); no entitlement or grandparented arrangements in the other DHBs

Medical Indemnity

10.44 Medical indemnity in Australia is sometimes misunderstood and seen as being inferior to the New Zealand entitlement. The entitlement in New Zealand is explicit and simple. Clause 20.1(c) of the Senior Medical and Dental Officers Collective Agreement requires DHBs to meet the full cost of membership of the Medical Protection Society (medical indemnity organisation) or an agreed alternative (pro rata for those who are part-time and also undertaking private practice). The Australian situation is quite different. Although there are variations between states and other jurisdictions, in essence full indemnity for staff specialists is provided for directly by state governments. Consequently the main Australian medical indemnity organisation, Avanti Insurance, does not provide insurance for treatment of a public patient because of the state indemnity.

Packages

10.45 As a generalisation New Zealand provides limited above MECA enhancements despite the fact that the District Health Boards Senior Medical and Dental Officers Collective Agreement is a minimum rates document and the availability of provisions such as Clause 14 (Recruitment and Retention Benefits) and Clause 15 (Special Contributions). In fact, a number of these arrangements are historical predating this Agreement. Examples include 'buy-outs' of private practice (eg, Counties Manukau), further enhancement of remuneration for rostered after-hours call duties and responsibilities (eg, Waitemata), personal allowances (eg, Auckland, and Waikato). In some cases "extra tenths" or an inflated job size render this enhancement opaque. On occasions some individuals are recognised because of their status or recruitment imperatives. However, as a proportion of the DHB employed senior medical workforce these numbers are small). Sometimes local dynamics affect the situation. For example, previously the three DHBs (and their predecessors) in the wider Auckland area competed against each other for specialists, to some extent driven in part by the expansion of new services in Waitemata. However, the three DHBs are now actively working together to prevent this.

10.46 Local competition between New Zealand DHBs has historically been a factor. For example the three Auckland DHBs have competed for specialists in the past particularly driven by the expansion of new services at Waitemata. Closer coordination between the DHBs through the regional alignment project has been an effort by DHB management to minimise this.

10.47 Sometimes enhancements get confused with other matters. Most commonly they get confused with the application of job sizing which is simply the practical application of Clause 12 of the Agreement. Another example is the recognition for those in clinical leadership positions such as clinical directors and chief medical advisers about which the Agreement is silent.

10.48 Australia is fundamentally different with very attractive enhanced packages being offered in advertised positions. For example, in 2008 Hays Healthcare advertised for several positions with the Department of Health in country Western Australia with packages of up to$370,000(A). The specialties were anaesthetists, general physicians, psychiatrists, general surgeons, obstetrician & gynaecologists, and paediatricians.

10.49 Highlighting the fiscal reality of trans-Tasman comparisons is an example from an ASMS member (otolaryngologist) who was offered a staff specialist position in Queensland in 2008. His gross full-time salary based on salary (including all recognised job sized hours) plus availability allowance was $158,417(NZ). The equivalent gross salary offer in Queensland for these same elements was $268,873(A) except that the Queensland position was for four hours less work per week. In addition, he would receive 12.75% superannuation contribution (but only making a 5% contribution of his own compared with a matching up to 6% in New Zealand), motor vehicle and fuel card, and an extra $4,000(A) payment for professional education and development (but paid automatically out in the form of an allowance rather than claimed expense).[228]

10.50 A significant difference between New Zealand and Australia is the greater absolute and proportionate role of the private sector. The Australian private sector also offers opportunities to recruit specialists from New Zealand. For example, a salary of between $800,000 and $1,000,000(A), with no on-call obligations, was being offered in 2008 for a full-time radiologist in a Townsville private clinic. According to the Director of the clinic they were desperate to fill the position and were advertising in newspapers and on recruitment websites in both Australia and New Zealand. Townsville public hospital was also short of radiologists (3.5 vacancies) where the salary package was expected to be closer to $500,000.[229]

10.51 Other examples include:

- General physician at Princess Alexandra Hospital, Brisbane, in 2007 with a remuneration package in excess of $300,000(A).
- Emergency medicine specialist positions at Bundaberg Hospital (Queensland) with total remunerative value of packages up to $339,689(A) and $367.836(A) in two cases with the other enhancements over and above salary and the area supplements including a 17% annual leave loading, private use of fully maintained vehicle, and a ‘communications package’
- Visiting medical officer paediatrician at Port Macquarie (mid-north coast of New South Wales) in 2008 with an annual remuneration of $350,000(A).

[228] Personal communication from otolaryngologist to ASMS, 29 October 2008.
[229] ,www.townsvillebulletin.com.au/article, 28 May 2008.

11 CANADA

A Way Forward

11.1 Nearly 20% of Canada's medical workforce was estimated to be working overseas in 2000, giving Canada one of the highest expatriation rates of doctors among OECD countries (though behind New Zealand).[230]

11.2 An examination of the trends in the supply, income and migration of Canadian physicians (specialists and family physicians) from 1970 to 1995 found that when real income increased in the early 1980s, the outflow of physicians steadily fell such that by 1988 it was almost matched by the return flow from abroad.[231]

> *The number and the incomes of Canadian physicians increased steadily until restrictions on provincial health care spending after 1991 brought the growth in both to an abrupt halt. But as economic conditions within the profession declined, the rate of emigration increased. (Grant and Oertel, 1997)*

11.3 By 1994 emigration had doubled, with 777 physicians leaving the country, mostly for higher incomes in the United States. (In the mid-90s the average net income for Canadian physicians was estimated at around $130,000 ($USPPP) compared to around $230,000 in the US.[232]

11.4 A dual survey of Canadian physicians working in Canada and the United States indicated a range of factors motivate physicians to migrate or to remain in the country, including clinical autonomy, remuneration, the general working environment and availability of services and facilities. Broadly, the preferences of those living in Canada emphasised personal and family factors, whereas the preferences of those in the United States created a profile of independent, career-minded individuals.[233]

> *These observations are important, since many personal and family factors (eg climate and location of relatives) are difficult or impossible to change, whereas most professional factors (eg government involvement, level of remuneration and availability of medical services and facilities) are theoretically more amenable to change. Influencing the future emigration of physicians depends mainly on those factors that can be modified. (McKendry et al 1996)*

11.5 Significantly, 84% of 1700 survey respondents living in the United States were "somewhat/very satisfied" with their level of remuneration, compared with just 45% of 1800 respondents living in Canada.

Interprovincial Migration

11.6 Physician migration within Canada has also been linked with large variations in average income (due in part to differences in provincial fee structures). The literature indicates that while physicians tend to move to other provinces for a variety of reasons – including, rural-urban factors, career opportunities, and working conditions – income is a key motivator.

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[230] P Zurn, J-C Dumont, *Health Workforce and International Migration: Can New Zealand Compete? OECD Health Working Paper 33*, OECD Paris.

[231] H Grant, R Oertel, "The Supply and Migration of Canadian Physicians, 1970-1995: Why We Should Learn to Love an Immigrant Doctor", *Canadian Journal of Regional Science*, XX:1,2 (Spring-Summer 1997), 157-168. Available at: www.lib.unb.ca/Texts/CJRS/Spring97/20.1_2/grant.pdf.

[232] OECD Data 2008.

[233] JR McKendry et al 1996. "Factors influencing the emigration of physicians from Canada to the United States" *Canadian Medical Association Journal*, 1996 January 15; 154(2): 171-181.

Despite expressions of discontent with involuntarily long hours of work, or inadequate social infrastructure, research capacity or social amenities, discussion invariably settles on relative income as the chief determinant of migration… Examined over a 25-year period, provincial migration rates are highly correlated with differences in average income.

JR McKendry et al 1996[234]

Provinces with the highest after-tax income, highest expenditure per physician, and highest fee-per-service rates have the highest net rate of in-migration.

Benarroch & Grant 2004 [235]

11.7 One recent study found that physicians from Ontario and Saskatchewan were more likely to choose a province offering a $10,000 increase in annual income than any other province.[236]

Post-2000 Trends

11.8 Recent data on the international in-flow and out-flow of physicians, and payments to physicians, indicate a similar correlation between migration and income observed in earlier years.

11.9 According to the Canadian Institute for Health Information (CIHI) total payments to physicians for clinical services increased by 39.4% over the five years to 2005/06.[237] At the same time, physician emigration rates fell so that by 2004 the number leaving was less than the number returning. The graphs below illustrate the respective trends.

Figure 5 Average Real Total Gross Payment in 2001 Constant Canadian Dollars

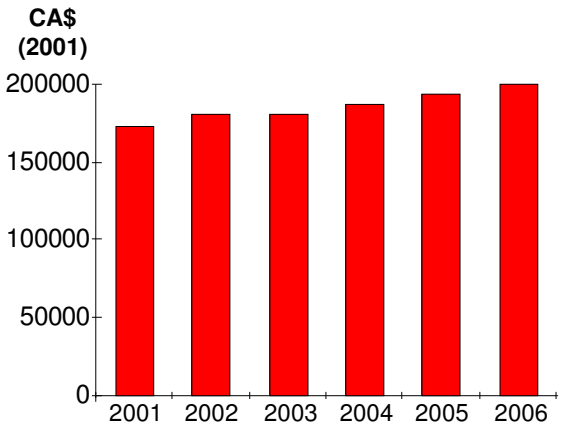
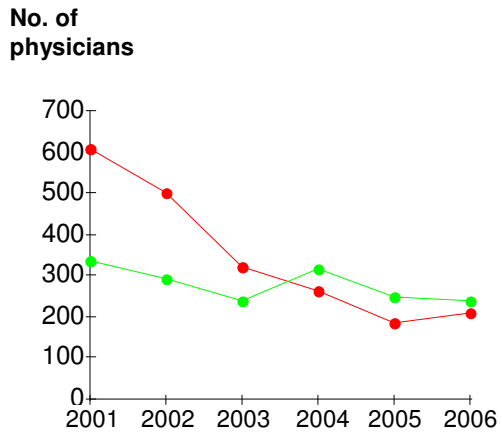


Figure 6 Migration Trends per Physician



Sources:
Fig. 5: Compiled by ASMS, using data on total payments to physicians and physician numbers from the Canadian Institute of Health Information (CIHI), and the Bank of Canada calculator for 2001 constant dollar adjustments.
Fig 6: CIHI data

11.10 The reduction in emigration to the United States coincides with a closing of the income gap between Canadian and US physicians. OECD data show that in 2001 (the latest figures available for the US) American physicians' estimated average income had remained around the levels of the mid-1990s – $230,000 (US$PPP). In other words, it kept pace with inflation and cost of living increases. Canadian rates, however, had increased to around $151,000 by 2001, and to $171,000 by 2005 (US$PPP).

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[234] JR McKendry et al 1996. "Factors influencing the emigration of physicians from Canada to the United States" *Canadian Medical Association Journal*, 1996 January 15; 154(2): 171-181

[235] M Benarroch, H Grant, 2004 "The interprovincial migration of Canadian physicians: does income matter?" *Applied Economics*, 36 (2004), 2335-2345, November

[236] S. Rajbhandary, K. Basu, *Health Policy 79 (2006) 265–273*

[237] Canadian Institute for Health Information, media release, 1 April 2008. Available at: http://www.cihi.ca/cihiweb/dispPage.jsp?cw_page=media_01apr2008_e

Future Supply

11.11 Like New Zealand, Canada's physician supply relative to the population is well below the OECD average (various provincial reports indicate Canada is short of at least 4000 physicians, or 6% of the workforce).[238] Like New Zealand, Canada is relying increasingly on overseas-trained doctors to fill the gaps. Like New Zealand, Canada has a larger, competitive neighbour.

> *Global competition for well trained physicians means that Canadian medical graduates will always have ample opportunity to pursue challenges and opportunities in other countries. The 2005 report of the US Council on Graduate Medical Education has projected that the US could be short of some 96,000 physicians in 2020. This will almost certainly increase the recruiting pressure on Canada. Even on the home front, the medical profession needs to remain competitive in attracting and retaining young people to the profession.*
>
> Buske 2007

11.12 Canada has at least made a start by plugging the "leaking bucket".

[238] L Buske, "Projections of Physician Supply in Canada." Canadian Collaborative Centre for Physician Resources, September 2007.

12 CONCLUSION

12.1 There has been surprisingly little examination or analysis of our specialist workforce, especially given New Zealand's potential "perfect storm" combination of elements, including, when measured against other OECD countries:

- The equal-lowest number of specialist per capita
- The highest dependency on overseas-trained specialists
- One of the highest doctor expatriation rates
- Below-average per capita health funding, and
- Relatively poor health status indicators (indicating high need)
- The impact of this combination is compounded by:
- A growing and ageing population
- A global shortage of specialists generally
- An increasingly competitive international marker for specialists, and
- Relatively poor pay and conditions compared with other similar countries, especially Australia.

12.2 The effects of this combination of circumstances are revealed through media reports, often after some serious service failure, and occasionally through official one-off reports, such as the recent reviews of cardiac services. Mostly, however, the consequences are hidden by New Zealand's increasing use of locums and overseas-trained specialists to fill positions, a lack of regular monitoring and analysis of the specialist workforce and, the "can do" attitude of senior doctors who are currently employed.

12.3 Despite the establishment in 2006 of DHBNZ's Health Workforce Information Programme stressing the importance of robust data to inform workforce planning and in particular recruitment and retention requirements, there remains a disturbing lack of accountability and transparency on the status of the workforce. Even basic indicators such as specialist turnover rates and vacancy rates are not reported or generally available.

12.4 The signs of a workforce under stress were evident in the Clinical Training Agency's medical workforce analysis in 2001. They have also been evident in the increasing use of overseas-trained doctors to fill specialist workforce gaps.

12.5 Even now, when New Zealand has the highest dependency on overseas-trained specialists in the OECD, our vacancy rates indicate New Zealand needs to import more still.

12.6 In one sense, we are fortunate that overseas-trained doctors are willing to work here. Without them, the system would not function and, on the face of it, importing doctors is a quick and relatively simple solution to addressing staff shortages. A degree of "brain exchange" is also beneficial for all parties. But over-reliance on immigration is unhealthy and unsustainable, leading to higher turnover rates and higher costs, when we need stability and cost effectiveness.

12.7 As one International Labour Office paper put it:

> *It is an indictment of governments and employers that they prefer to rely on the relatively straightforward panacea of international recruitment rather than focusing on underlying problems*

of pay and working conditions. Improvements in these areas would ensure increased recruitment and retention among the existing health sector workforce.[239]

12.8 Other comparable countries, such as the United Kingdom, Australia and Canada have recognised this through a mixture of immediate measures such as increased remuneration packages complemented by other incentives, including opportunities for research and more flexible hours, and longer-term measures such as increasing the intake of medical training schools and exploring new models and systems of service delivery.

12.9 To be competitive, to ensure a viable specialist workforce and, with it, a viable health system, New Zealand must follow suit.

12.10 The need for New Zealand doctors to have internationally competitive pay and conditions has been recognised in a number of papers, including some published by the Ministry of Health. To date, however, there has been no commitment, or even stated intention, to translating that recognition into reality.

12.11 A key issue is the amount of funding that DHBs receive to cover cost of inflation, including most significantly, increases in salaries. Gordon Davies, then chief executive of Canterbury DHB and a former Deputy Director-General of Health responsible for DHB funding, says current FFT rates "will threaten the DHB model, which is the best New Zealand has had and is envied in many countries". He has called for an immediate revision of the FFT "to offer a sustainable level of funding".[240]

12.12 Until DHBs are offered a sustainable level of funding, it is difficult to see how they develop a sustainable workforce. Meanwhile we are losing doctors to countries like Australia, where hospitals are so keen to recruit New Zealand specialists that some are not only offering salaries twice as big as they earn in New Zealand but are also throwing in housing and a car, plus arrangements such as taking every fourth week off on top of annual leave, flights home to New Zealand and extra funding for continuing medical education.

12.13 Previously unpublished statistics included in this paper confirm the cross-Tasman traffic of specialists is virtually one-way, and that vacancies are becoming increasingly harder to fill, even in the tertiary centres.

12.14 Of course there is often more than one reason why a doctor decides to emigrate. The unprecedented and overwhelming support for industrial action by ASMS members during our last MECA negotiations should clear any doubts as to the strength of feeling about New Zealand's pay and conditions.

12.15 New Zealand's current circumstances, which have been building for some years, have arrived at a critical point. Like many countries, we are facing considerable challenges in meeting the health needs of a growing and ageing population. Like many countries, we must improve the effectiveness of our health system through greater collaboration and networking and through developing more innovative ways of delivering services. A key factor in our ability to succeed will be how well we compete with Australia in securing an adequate and stable, specialist workforce.[241]

[239] S Bach, *International Migration of Health Workers: Labour and Social Issues*. International Labour Office, Geneva 2003.
[240] G Davies, S Bradley, *Letter to Director-General of Health*, 12 September 2007, Canterbury District Health Board.
[241] In preparing this paper the Association has been frustrated by difficulties in obtaining medical workforce data from DHBNZ despite DHBNZ documents indicating such data are collected as part of the Health Workforce Information Programme. There seems to be a lack of priority given to the recording and accessibility of basic specialist workforce data such as turnover and vacancy rates which are important in securing ongoing sustainability of the workforce. The Association will be raising this as an issue for the National Consultation Committee (joint committee of the Association and the 21 DHBs) with a view to this data being regularly reported to its quarterly meetings.

13 THE SOLUTIONS: GETTING AND KEEPING SENIOR DOCTORS

13.1 The Canadian research (see Chapter 11) suggests that the doctors that stay and the doctors that go exhibit different characteristics which may well change over time. The initial decision that a new specialist makes as to where they make their career is probably where pull factors predominate as are the decisions of a specialist nearing the end of their career.

13.2 When senior doctors leave the employment of their DHB in mid-career there is usually a mix of 'push' and 'pull' factors,

13.3 The Association, through an initiative we have called "What it takes to stay" is addressing many of the push factors in the parameters of the current MECA. Among the initiatives are:

- The Association is actively promoting the enhanced clinical engagement and leadership envisaged by both the MECA (eg, refer to the Preamble of the MECA) and the Time for Quality Agreement. The Time for Quality Agreement between the Association and the 21 DHBs (signed in August 2008) is based on the premise that the health system requires quality to be its driver, which requires health professional leadership, which requires sufficient time for health professionals to provide this leadership. There are key principles of engagement based on teamwork between health professionals and managers including certain lead roles for the former. Further, the engagement principles of the Time for Quality Agreement are included in the MECA. Responsibility for progressing the Agreement currently resides with the National Consultation Committee (discussed below).

- Clause 55 of the MECA establishes Joint Consultation Committees (JCCs) of the Association and each of the 21 DHBs, which meet three times per annum. They were established in the first MECA (2003-06) and their role in terms of explicitness was expanded in the current MECA (eg, inclusion of recruitment and retention strategies; staffing; workforce development; and supporting professional development and education). The Association is also seeking to use the JCCs to enhance clinical engagement and leadership in various forms and at various opportunities. This includes organising half-day workshops on enhancing clinical engagement and leadership in DHBs. These are held when no non-acute services are scheduled and are usually offsite. Two successful workshops have been held to date (Northland and Hawke's Bay) with several planned for February-March 2009.

- The National Consultation Committee (NCC) is a creation of the current MECA. It is a joint DHBs-ASMS national committee comprising six representatives from each party. It is to meet at least quarterly. Two meetings have been held so far. Despite some scepticism over how useful it might be, the Association has been impressed with the potential opportunities the NCC provides for increased engagement and influence. Issues for discussion at the NCC already include encouragement of a national patient management system; the primary-secondary interface including 'seeing patients without seeing patients'; productivity; and rationalising consent forms.

- The Association is strengthening the advice and support the Association provides to members over job sizing, which is critical to the determination of remuneration for senior doctors. Remuneration is linked to average hours of work (clinical, non-clinical, after-hours call duties, and other activities). Job sizing is about addressing unfairness and inequity when average hours paid falls short of average hours worked. Inequity is a cause of frustration among a number of senior doctors. Consequently the Association has increased our work in

supporting many members in job sizing reviews, including the revision of the *ASMS Standpoint on Hours of Work and Job Sizing t*o improve its practical focus for our members' use.[242]

13.4 However, as noble and constructive as these initiatives are, they will come to little unless the terms and conditions of employment of senior doctors are at a sufficient level to allow DHBs to compete effectively in an Australian medical labour market. The SMO Commission is uniquely positioned to bring this added dimension into the formal processes of bargaining. Only the Commission has this responsibility.

13.5 The pressures introduced by recruitment difficulties themselves and by the historically low number of specialists for population in New Zealand compared to other countries means more frequent call, less non-clinical time, and a nagging sense that excellence cannot be a realistic aspiration.

The Short Term: Terms and Conditions of Employment Necessary to Compete in the Australian Medical Labour Market

13.6 New Zealand DHBs have no choice but to compete in an Australian medical labour market. This is evident in the case of four core terms and conditions of employment although such is the sheer magnitude of the gap that phased implementation would be justified noting that maximum term for a collective agreement under the Employment Relations Act is three years. The current MECA expires on 30 April 2010 so it can be reasonably assumed that the maximum expiry date of the new MECA would be 30 April 2013. In this context a framework commencing broadly with the New South Wales terms and conditions (noting an obvious exception with continuing education leave expenses) and concluding within the Western Australian, South Australian and Queensland range would balance phased in implementation with achieving full competitiveness. In general New Zealand only compares favourably with Australia in only one main area – annual leave – where the entitlement is six weeks compared with around five weeks in the Australian states and jurisdictions (although this gap is significantly narrowed by Australia's much more advantageous long service leave entitlements). These four core terms and conditions which need to be addressed are:

- Base salary steps (the competitiveness of salary scales)
- Enhanced remuneration for average hours worked on rostered after-hours' call duties (and after-hours' shifts).
- Subsidised superannuation.
- Reimbursement of continuing medical education expenses.

13.7 Using South Australia as a benchmark, in order to be competitive Step 1 of the specialist scale would need to increase from $128,596(NZ) to at least $213,066(A). For Step 9 the increase would need to be from $164,852(NZ) to at least $280,747(A). The reference to 'at least' is because there are four levels of the 'attraction and retention allowance' with the lowest being used in the contrast. The other three, in increasing order, are rehabilitation, anaesthesia (one of the largest specialties) and intensive care, and emergency medicine and paediatric emergency. In the case of the latter highest category the respective Step 1 and Step 9 increases would need to be to $273,708(A) and $360,652(A). Some allowance obviously needs to be made for cost of living differences but much of this can be achieved by equating the purchasing power of the Australian dollar in Australia with the New Zealand dollar in New Zealand. Further, these salary comparisons do not take into account the huge advantage in disposal income provided by the unique Australian system of salary sacrifice discussed above. The Commission needs to also note that many of these Australian settlements will be renegotiated within the possible term of the new MECA. Queensland is already being re-negotiated while the terms of the Western Australian and South Australian settlement are 2010 and 2011 respectively. In other

[242] This publication is available on the Association's website www.asms.org.nz.

words, even matching these settlements would still most likely leave New Zealand behind in the event of a two year term for the next MECA.

13.8 Comparison of remuneration for after-hours rostered duties and shift work is difficult due to the considerable advantages that Australia has over New Zealand because of its far greater critical mass. In general, specialists in New Zealand will be on call (or working on after-hours shifts) more frequently and for longer hours than staff specialists in Australia because of the greater number of specialists and registrars (especially senior registrars) employed. Despite this most Australian states do recognise the need for additional remuneration for these hours and more generously than the standard national rate in New Zealand. Because after hours work is the most difficult part of a senior doctors work it needs to be adequately recognised both in terms of increased payment for the time worked and increased recognition of the social effects of frequency of call.

13.9 New Zealand DHBs need to at least match the federal employer superannuation contribution in Australia of 9%. Simply doing this, however, would still leave New Zealand behind because Australia (excluding Queensland) does not require any (let alone matching) employee contributions while the Queensland employer contribution is 12.75% (subject to a 5% employee contribution).

13.10 CME expenses need to rise to at least $20,000 (increasing to around $30,000 during the term of the next MECA)

13.11 Improvements in the terms and conditions outlined above will allow the Ministry of Health, the DHBs, and the Association to support our specialists to build a fully staffed specialist workforce which can address New Zealanders' health needs for the future.

ANNEX ONE LETTERS FROM CLINICAL DIRECTORS

- Dr Himadri Seth, Consultant Psychiatrist, Regional Forensic Psychiatry Services, Waitemata DHB
- Dr Sally Vogel, Clinical Director, Paediatric Radiology, Starship Children's Hospital, Auckland DHB
- Dr Vanessa Beavis, Director, Anaesthesia & Operating Rooms, Auckland DHB
- Dr Judy Bent, Clinical Director, Short Stay Surgical Unit, Greenlane Clinical Centre, Auckland DHB
- Dr Helen Moore, Consultant Radiologist, Auckland City Hospital, Auckland DHB
- Dr Stuart Barnard, Clinical Head, Department of Radiology, Counties Manukau DHB
- Dr John Bonning, Consultant Emergency Physician, Waikato Hospital, Waikato DHB

ANNEX TWO ASMS VACANCY SURVEYS

- Northland DHB
- Waikato DHB
- Bay of Plenty DHB
- Tairawhiti DHB
- Taranaki DHB
- Whanganui DHB
- MidCentral DHB
- South Canterbury DHB
- (Southland and Lakes surveys will be forwarded to the SMO Commission when complete).

APPENDIX 1

Summary of workforce development activity in Ministry of Health workforce development plans and DHB/DHBNZ Future Workforce framework

1 Workforce development infrastructure

Goal: A national and regional workforce development infrastructure which supports stakeholders to progress workforce development

Actions:

- Improve national co-ordination of actions.
- Develop collaborative and cross-sectoral relationships.
- Develop funding mechanisms which facilitate new models of care and training.
- Monitor progress on workforce development plans.
- Develop regulatory or other infrastructures to facilitate increased workforce flexibility under the Health Practitioners Competency Assurance Act 2003.

2 Organisational development

Goal: Health services develop the organisational culture and systems which will attract and grow their workforce and meet service needs

Actions:

- Improve leadership capacity and practice (particularly by under-represented workforce groups).
- Increase the range of health workforce groups involved in governance.
- Develop innovative models of care and support (eg, continuum of care approach, primary health teams).
- Improve healthy workplace environments and practices (eg, magnet hospitals).
- Align workforce with service needs (ie, identify and plan to address service gaps).

3 Recruitment and retention

Goal: Health services have a nationally and regionally co-ordinated approach to recruiting and retaining staff, which results in increased capacity and capability of the health workforce

Actions:

- Establish national advertising and branding campaigns (including websites).
- Implement career pathways and co-ordinated professional development programmes.
- Develop strategies to train and recruit under-represented groups within the health workforce (Māori, Pacific, Asian workforces).
- Deliver health career promotion in schools.
- Support new staff through the transition from training to practice.
- Support the development of career pathways for the development the unregulated workforce.

4 Training and development

Goal: All stages of health workforce training are aligned to service needs and promote retention

Actions:

- Establish an agreed set of core competencies which are portable across disciplines.
- Develop and deliver training to support new models of care.
- Establish a set of cultural competencies within training programmes to improve service delivery to cultural groups and recruitment of staff from them.

5 Information, research and evaluation

Goal Information and research are available to support workforce development planning

Actions:

- Ensure the collection of workforce information is robust, uniform and nationally co-ordinated.
- Improve information-sharing mechanisms.
- Develop the ability to monitor and evaluate the structure of the health workforce and its activities (HPCAA processes).
- Undertake surveys of existing workforce groups

APPENDIX 2

Table 17 Average Age of Specialists by Vocational Scope

Vocational scope	Average age 2007
Accident and medical practice	47
Basic medical science	47
Clinical genetics	51
Diagnostic & interventional radiology	52
Family planning & reproductive health	49
Internal medicine	48
Musculoskeletal medicine	50
Occupational medicine	52
Paediatrics	53
Pathology	49
Psychiatry	51
Radiation oncology	50
Sexual health medicine	47
Surgery: cardiothoracic	47
Surgery: neurosurgery	49
Surgery: other	52
Surgery: paediatric	48
Surgery: urology	49
Specialists	49
Anaesthesia	53
Breast medicine	48
Dermatology	43
Emergency medicine	52
Intensive care medicine	53
Medical administration	49
Obstetrics and gynaecology	54
Ophthalmology	50
Palliative medicine	50
Primary care	53
Public health medicine	48
Rehabilitation medicine	49
Sports medicine	49
Surgery: general	45
Surgery: orthopaedic	52
Surgery: otolaryngology	50
Surgery: plastic	51
Surgery: vascular	49

Source: MCNZ 2007 Workforce Survey

APPENDIX 3

Table 18 DHB Medical Specialists: A Comparison of the Years to June 2006 and to June 2008

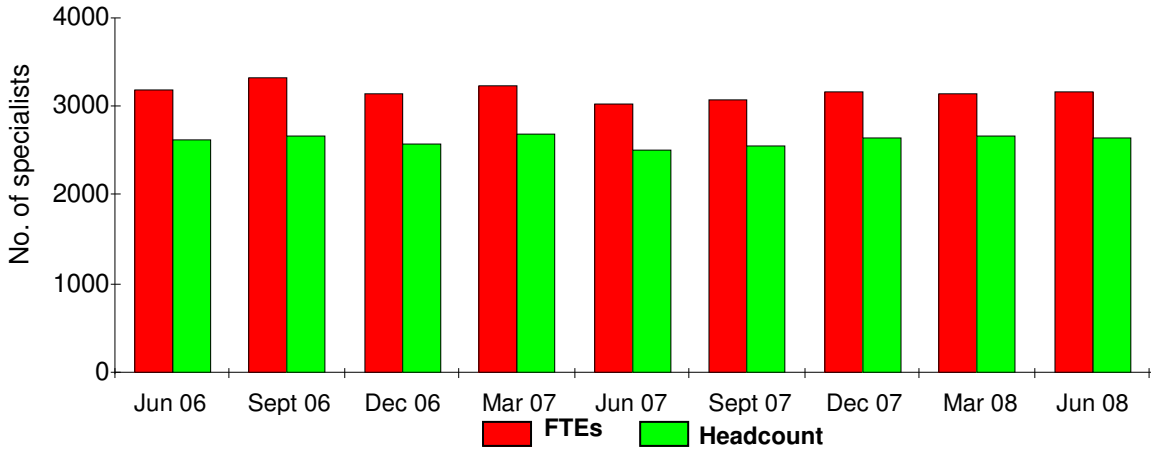
Occupation (ANZSCO)	FTEs Year to 30/6/06	Headcount Year to 30/6/06	FTEs Year to 30/06/08	Headcount Year to 30/06/08	Difference	
					FTEs	%
253999* - Medical Practitioners (not elsewhere classified)	415.9	516	489.7	610	+73.8	+17.7
253411 - Psychiatrist	368.6	423	348.8	393	-19.8	-5.4
253211 - Anaesthetist	355.9	422	335.4	387	-20.5	-5.8
253311 - Specialist Physician (General Medicine)	81.5	88	170.5	185	+89.0	+109.2
253916 - Radiologist	147.3	188	147.8	186	+0.5	+0.3
253321 - Paediatrician	131.2	148	124.6	140	-6.6	-5.0
253511 - Surgeon (General)	123.1	140	130.0	144	+6.9	+5.6
253514 - Orthopaedic Surgeon	106.0	143	103.0	133	-3.0	-2.8
253913 - Obstetrician and Gynaecologist	105.5	138	92.5	119	-7.0	-6.6
253313 - Haematologist	30.0	35	25.8	31	-4.2	-14.0
253915 - Pathologist	66.3	79	57.0	68	-9.3	-14.0
253312 - Cardiologist	67.8	76	59.9	67	-7.9	-11.7
253914 - Ophthalmologist	45.1	73	39.5	64	-5.6	-12.4
253515 - Otorhinolaryngologist	42.5	61	37.0	51	-5.5	-12.9
253917 - Geriatrician	28.2	31	32.8	36	+4.6	+16.3
253111 - General Medical Practitioner	17.5	31	39.5	61	+22.0	+125.7
252311 - Dental Specialist	27.2	55	32.0	61	+4.8	+17.6
253316 - Gastroenterologist	23.7	31	15.8	21	-7.9	-33.3
253318 - Neurologist	25.6	30	27.7	33	+2.1	+8.2
253912 - Emergency Medicine Specialist	71.6	74	28.3	28	-43.3	-60.5
253399 - Internal Medicine Specialists nec	58.5	71	30.0	39	-28.5	-48.7
253317 - Intensive Care Specialist	10.1	11	24.4	27	+14.3	+141.6
253322 - Renal Medicine Specialist	21.2	21	21.4	21	+0.2	+0.9
252312 - Dentist	18.7	26	17.3	27	-1.4	-7.5
253518 - Urologist	18.2	27	19.1	27	+0.9	+4.9
253325 - Respiratory Physician	19.9	21	18.3	19	-1.6	-8.0

Occupation (ANZSCO)	FTEs Year to 30/6/06	Headcount Year to 30/6/06	FTEs Year to 30/06/08	Headcount Year to 30/06/08	Difference	
					FTEs	%
253512 - Cardiothoracic Surgeon	18.0	18	15.8	16	-2.2	-12.2
253516 - Paediatric Surgeon	13.5	14.0	16.8	17	+3.3	+24.4
253513 - Neurosurgeon	13.0	14	14.7	15	+1.7	+13.1
253315 - Endocrinologist	9.5	11	6.5	9	-3.0	-31.6
253521 - Vascular Surgeon	15.3	16	12.4	13	-2.9	-19.0
253517 - Plastic and Reconstructive Surgeon	15.6	19	7.8	10	-7.8	-50.0
253314 - Clinical Oncologist	74.2	77	71.5	75	-2.7	-3.6
253911 - Dermatologist	10.3	22	8.4	16	-1.9	-18.4
253323 - Rheumatologist	12.1	18	5.2	8	-6.9	-57.0
253412 - Psychogeriatritian	6.2	7	6.0	7	-0.2	-3.2
253522 - Breast Surgeon	1.8	4	2.5	5	+0.7	+38.9
Total	2,616.5	3,179	2,635.4	3,169	+18.9	+0.7%

Source: DHBNZ Health Workforce Information Programme: Quarterly Base Data Reports

*This group includes occupational health specialists, public health physicians and sports physicians

Figure 7 Number of Specialists Employed by DHBs – Headcounts and FTEs



Note: While the total numbers of specialists for each of the quarterly reports from June 2006 have remained fairly constant (Figure 8), significant movement is indicated in several individual specialties, such as specialist physicians, and emergency medicine specialists (Table 7). This may be due to differences in the way these specialists have been classified. DHBNZ's explanation is that:

> *"The oddities most likely relate to the improvement in quality and updating of mappings for each snapshot. The main thing to consider is each snapshot is an isolated picture at that time and trends are not always possible outside of the macro view." –*
>
> Email correspondence, 7 October 2007.

APPENDIX 4

Table 19 Internal Medicine Specialists by Sub-Specialty

	2000[243]			2007[244]			
Sub-Specialty	**No. (active)**	**No. per pop.**	**Deficit/ surplus**	**No. (active)**	**No. per pop.**	**Deficit/ surplus**	**Recommended benchmark**
General	151	1:25,371		156			
Cardiology	81	1:47,296	-48	77	1:54,935	-64	1:30,000[245]
Diabetology	7	1:547,286	shortage	8	1:528,538	shortage	
Endocrinology	13	1:294,692	shortage	18	1:234,906	shortage	
Gastroenterol	33	1:116,091	-25	44	1:96,136	-20	1:66,000[246]
Geriatric Medicine	42	1:10,800 (over 65s)	-92	47	1:11,200 (over 65s)	-109	1:4000 (over 65) 1:10,000 (over 75)[247]
Haematology	21	1:182,429	-	21	-	shortage	Est. 32 FTEs[248]
Immunology	4	1:957,750		5			
Infectious Diseases	10	1:383,100		17			
Medical Genetics	*	*		*			
Medical Oncology	17	1:226,940	-22	23	1:183,910	-20	1:100,000[249]
Clinical Pharmacology	*	*		*			
Nephrology	21	1:182,429	shortage	30	1:140,943	shortage	
Neurology	29	1:132,103		-			
Nuclear Medicine	5	1:766,200		4			
Physical Medicine	*	*		*			
Respiratory Medicine	32	1:119,719		32			
Rheumatology	29	1:132,103		32			
Total	502		-187	552		-250	

Note: In 2001 palliative medicine became a vocational scope in its own right, separate from internal medicine. Palliative medicine has therefore been included separately in the main specialty list in Table 3 (Chapter Eight).

* Denotes fewer than four specialists

[243] Source: Clinical Training Agency (2001).

[244] Source: Medical Council of New Zealand (2007), and Statistics NZ resident population statistics, by age.

[245] Australian Medical Advisory Committee Report 1999.5. (AMWAC considered 1:30,180 adequate).

[246] AMWAC Report 2000.4, quoting Royal College of Physicians of London, Gastroenterology Committee 1999.

[247] AMWAC Report 1997.5, quoting British Geriatric Society.

[248] Ministry of Health (2007). *Cancer Control Workforce Stocktake and Needs Assessment*. Benchmark 1.6 medical oncology and haematology specialists per 100,000 population (assuming 1.0-1.1 FTE medical oncology and 0.5-0.6 FTE haematology per 100,000).

[249] Ibid.