

National Medical Intern Summit

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BACKGROUND PAPER



Health

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Introduction

The NSW Minister for Health has convened a National Medical Intern Summit to bring together key health and education stakeholders to discuss long term and sustainable solutions to the provision of internships for Australian trained graduates who seek general registration in Australia. This paper has been prepared as a background document to the National Medical Intern Summit to provide a summary of the workforce, service, education and training issues which inform the number and distribution of intern training positions in Australia.

While international full fee paying medical students have never been guaranteed intern positions, they had been able to access intern positions because of insufficient domestic graduates available to fill established intern positions. As domestic graduate numbers have increased over the last few years to address workforce requirements, universities have also increased international medical student numbers to address university funding needs.

States and Territories have guaranteed to provide intern positions for Commonwealth Supported medical graduates. According to data in the 15th Medical Training Review Panel (MTRP) Report there will be 3623 (3040 domestic medical students and 583 international full fee paying students) graduating in 2013 and eligible to complete an internship in 2014. If all were to seek an internship in Australia then 533 additional intern places are required for 2014.

A record 3,090¹ intern positions were available in Australia for the 2013 clinical year. This represents an increase of 1,314 positions since 2007. Despite the significant growth in intern positions by all States and Territories over this period of time in 2012 there were not enough State and Territory funded intern positions to accommodate all international full fee paying medical students who wanted to undertake an internship in Australia. Consequently the Commonwealth Government provided one-off funding of \$10M to establish up to 100 additional intern positions in the private sector in 2013 for international fee paying medical students graduating from Australian universities. One of the conditions of the Commonwealth offer was a return of service obligation which required international full fee paying graduates to work in a District of Workforce shortage for 12 months within 5 years of completing their internship.

¹ These positions were established by States and Territories and does not include the 100 positions funded by the Commonwealth Government for 2013.

The Australian Health System

Health expenditure in Australia in 2010-11 was over \$130.3 billion, an increase of \$8.9 billion (7%) from the previous year and \$26.7 billion (25%) in 2 years². Health expenditure as a percentage of GDP was 9.3%. More than half of all health services are delivered outside of public hospitals³.

The Healthcare and Social Assistance sector is the largest employer of Australians. As at November 2012, the Health and Social Assistance sector employed 1,360,500 people⁴. AIHW⁵ data notes that between 2007 and 2011, the number of medical practitioners employed in medicine increased by 17.3% from 67,208 to 78,833. In 2011, 93.8% (73,980) were working as clinicians, of whom 33.1% were specialists and 33.9% were general practitioners. In 2011 the number of specialists-in-training was higher in the public sector; 14,817 FTE compared to 825 FTE in the private sector.

In 2010-11 public hospitals accounted for 60% of separations (episodes of admitted patient care) and private hospitals accounted for 40% of separations⁶. Between 2006-07 and 2010-11 the number of separations increased by 16.7% overall, 13.3% in public acute hospitals and 21.5% in private hospitals. During the same period, the number of patient days in public acute hospitals increased by 6.3%, compared to an increase of 12.3% in private hospitals⁷.

Comparisons with other countries

Data from the Organisation for Economic Cooperation and Development (OECD) indicates that Australia has 3.1 doctors per 1,000 people which is the current OECD average for developed nations⁸. Australia has more doctors per 1,000 people than the United Kingdom (2.7), United States (2.4), Canada (2.4) and New Zealand (2.6). The OECD⁹ average of the number of medical graduates per 100,000 people across developed nations is 10.3 graduates. According to OECD data, Australia has 12.0 medical graduates per 100,000 people. In comparison, New Zealand has 7.3, Canada 7.2, the USA has 6.6 and the UK has 9.3 graduates per 100,000 people.

2 Health Expenditure Australia, 2010-11, AIHW, September 2012.

3 Health Expenditure Australia, 2010-11, AIHW, September 2012 Figure 3.2: recurrent health expenditure, by area of expenditure and source of funds, current prices, 2010-11. <http://www.aihw.gov.au/publication-detail/?id=10737423009>.

4 http://lmip.gov.au/default.aspx?LMIP/LFR_LFR_Industry_Total_Ranked.

5 AIHW 2013. Medical workforce 2011. National health workforce series. Cat. no. HWL 49. Canberra: AIHW.

6 Australian Institute of Health and Welfare Admitted patient care overview <http://www.aihw.gov.au/haag09-10/admitted-patient-care-overview/> Accessed February 2013.

7 Australian Institute of Health and Welfare Admitted patient care overview <http://www.aihw.gov.au/haag09-10/admitted-patient-care-overview/> Accessed February 2013.

8 Source: OECD Health Data 2012.

9 OECD Health Data 2012

Medical Registration in Australia

Completion of a medical internship is an integral requirement for a medical graduate to gain general medical registration. Prior to 30 June 2010, the requirements for general registration were determined by each State and Territory Medical Board. With commencement of the National Registration and Accreditation Scheme (NRAS) in July 2010 (and 18 October for Western Australia), the Medical Board of Australia became responsible for granting general registration.

There are three main types of medical registration¹⁰ which will apply to graduates of Australian and New Zealand medical schools in the course of their transition from medical school to specialist practice:

1. *Provisional registration* – Provisional registration is awarded for 12 months to Australian and New Zealand medical school graduates applying to undertake an approved intern position. Provisional registrants are only permitted to work in approved intern positions. They are not permitted to undertake any clinical work outside their allocated intern position. Provisional registrants are eligible for general registration upon satisfactory completion of 12 months of supervised practice as an intern.
2. *General registration* is available to medical practitioners who have completed a medical degree in an Australia Medical Council accredited medical school and an approved internship in Australia or New Zealand. General registrants can work as unsupervised¹¹ health practitioners in Australia.
3. *Specialist Registration* – is available to medical practitioners who have been assessed by an Australian Medical Council accredited specialist college as being eligible for fellowship. The Australian Health Practitioner Regulation Agency (AHPRA) publishes an online Specialists Register, which includes details of practitioners' specialty and field of specialty practice, consistent with the list of specialties, fields of specialty practice and specialist titles approved by the Ministerial Council. Medical practitioners with the necessary qualifications in the approved specialties are included on the Specialist Register and their specialist title will be protected by law. Entry into fellowship training programs is governed by the respective specialist medical colleges. General registration is a pre-requisite for entry into specialist training for Australian medical graduates.

10 <http://www.medicalboard.gov.au/Registration/Types.aspx>

11 *Provisional to General Registration* – Frequently Asked Questions, Australian Health Practitioner Regulation Agency, <http://www.medicalboard.gov.au/Registration/Types/Provisional-to-General-Registration.aspx>

Internship in Australia

Internship in Australia was originally intended to assist in the consolidation of undergraduate training in preparation for general practice. Upon successful completion of the intern year, graduates were able to progress to practising as general practitioners. States and Territories had different approaches to internships. Twenty five years ago whilst NSW required graduates to undertake core terms in general medicine, general surgery and accident & emergency; Western Australia, South Australia, Victoria, Tasmania and Queensland required core terms in general medicine and general surgery only. There were also opportunities for graduates to complement their medicine and surgical training in areas such as psychiatry and obstetrics in some States¹². Furthermore in 1988 there was no mandatory requirement to undertake vocational training in general practice before commencing as a general practitioner. Upon successful completion of the intern year, graduates were able to progress to practicing as general practitioners.

In 1996, Section 19AA of the *Health Insurance Act 1973* was introduced to recognise and support general practice as a vocational specialty and to provide a framework for achieving long term improvements in the quality of doctors working in Australia. Section 19AA applies to all doctors who obtained medical registration after 1 November 1996, are Australian citizens or permanent residents and who do not hold continued recognition by the Royal Australian College of General Practitioners or Australian College of Rural and Remote Medicine or by another recognised specialist college. Under section 19AA doctors must complete a program of postgraduate vocational training to be eligible to receive a Medicare provider number with access to the Medicare benefits arrangements. There are some exemptions from section 19AA for certain workforce and training programs.

Current Standards

The Medical Board of Australia undertook a review of intern training in 2011. The Medical Board of Australia Registration Standard *Granting general registration as a medical practitioner to Australian and New Zealand medical graduates on completion of intern training*¹³ was approved by the Australian Health Workforce Ministerial Council in November 2012. In revising the Registration Standards, the Medical Board noted¹⁴ that:

“Internship is a period of mandatory supervised general clinical experience. It allows medical graduates to consolidate and apply clinical knowledge and skills while taking increasing responsibility for the provision of safe, high quality patient care... Internship also informs career choices for many graduates by providing experience in different medical specialties including general practice, and providing a grounding for subsequent vocational (specialist) training. Completion of the internship leads to general registration. General registration indicates that the practitioner has the skills, knowledge and experience to work as a safe entry level medical practitioner able to practise within the limits of their training.”

12 Australian Medical Education and Workforce into the twenty-first century, Doherty, R. L. – Committee of Inquiry into Medical Education and Medical Workforce, April 1988 (Table 6.1).

13 Granting general registration as a medical practitioner to Australian and New Zealand medical graduates on completion of intern training, 9 November 2012, <http://www.medicalboard.gov.au/Registration-Standards.aspx>.

14 Ibid, 9 November 2012, <http://www.medicalboard.gov.au/Registration-Standards.aspx>.

The Standard requires interns to undertake a minimum of 47 weeks full time equivalent service and to complete a term of at least 8 weeks that provides experience in emergency medical care; a term of at least 10 weeks that provides experience in medicine and a term of at least 10 weeks that provides experience in surgery. Terms must be accredited against approved accreditation standards for intern training. The Medical Board of Australia has delegated the authority to accredit institutions for the training of interns to Postgraduate Medical Councils (PMCs) based in each State and Territory.

Internship is not a clinical placement, but a salaried position. The medical graduate is employed while undertaking their intern training to meet registration requirements. Interns earn a base salary between \$56,926 to \$72,295¹⁵. Significant infrastructure is required to support intern training and supervision. In identifying the funding required in the recent deliberations by Australian Health Ministers on additional intern positions for 2013, NSW calculated the total cost of supporting an intern position, inclusive of salary, to be in the order of at least \$100,000 per position and Queensland calculated it be in the order of \$120,000. Domestic medical graduates remain the only tertiary qualified profession who are guaranteed paid employment at the completion of their undergraduate training. This guarantee currently comes with no obligations or requirements to be met.

A pre-registration year is also not a uniform requirement across other health professions in Australia. In contrast to medical graduates, nursing graduates obtain full registration on completion of their university education. Dentistry and physiotherapy graduates also complete their registration requirements during their undergraduate training.

Constraints with the current intern registration requirements

The public health system represents only one part of the health system, however, it currently provides training for doctors who will eventually work not only in the public health sector, but also in private hospitals, general practice and overseas.

Intern positions are determined by State and Territory workforce need, and their capacity to train. State and Territory workforce requirements are based on forecast demand across public and private health services and the workforce supply necessary to meet this forecast demand. State and Territory capacity to train is determined by the ability to fund the training infrastructure, salary costs, the clinical caseload, and supervision requirements. The impact of increasing medical graduates also extends beyond the internship year and has implications for postgraduate education and training. States and Territories in planning for intern positions have to also take into account the ability to identify appropriate postgraduate year 2 and specialist training positions that meet training requirements and to fund these positions. Interns are new graduates with limited clinical experience and require supervision and support. As a result, the establishment of each additional intern position requires a similar investment in the supervision and training requirements.

Whilst efforts have been made to relax the scope of core terms, the requirement for all interns to undertake training in surgery, medicine and emergency medicine in their first year post graduation has been cited as a barrier to the ability of the health sector to establish new intern training positions. Anecdotal advice from public facilities suggest that a key bottleneck for expanding intern training opportunities is the requirement for emergency medicine exposure. In the majority of states and territories, this exposure is delivered through public Emergency Departments (EDs). Most EDs are busy patient care environments. As a result, for some EDs it is not feasible to divert registrar and consultant resources from patient care to intern education and training in an environment whereby the demand for ED services is constantly increasing.

15 Intern & Residents Guide 2012, Australian Medical Students Association (AMSA) http://media.amsa.org.au/publications/intern_residents_guide_2012.pdf.

Public hospitals must balance growth in intern positions with the growing demands of delivering patient care services to meet the expanding needs of their local communities. The loss of productivity as a result of the education, training and supervision requirements is one of the reasons given as to why private facilities seek funding for pre-vocational and vocational training positions in private facilities. Dr Michael Coglein, Chief Medical Officer, Healthscope Limited¹⁶ notes:

“Unless a private hospital has an established Registrar tier, it is unsuitable for intern placements. The numbers of Registrars needed to provide adequate intern supervision are not to be found in all but the very largest private hospitals and certainly not in Healthscope’s NSW private hospitals. Matters that would need to be dealt with to our satisfaction include funding of intern salaries and on-costs, funding of supervisors, funding of infrastructure (library etc), indemnity, establishment of rotations from a “parent” public teaching hospital, no loss of hospital productivity and VMO support”.

Assessment for registration

Each medical school currently determines and manages its own medical student assessments. There are no national exit examinations undertaken by all medical graduates completing medical school.

Canada and the United States of America have long standing national medical licensing examinations. In Canada, the Medical Council of Canada grants a qualification in medicine known as the Licentiate of the Medical Council of Canada (LMCC) to graduate physicians who have satisfied the eligibility requirements and passed the Medical Council of Canada Qualifying Examination – Parts I and II. Similarly, medical graduates in the USA are required to successfully complete the United States Medical Licensing Examination (USMLE) examination program. The USMLE is a three-step examination for medical licensure in the United States and is sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME).

The concept of a national examination to assess medical training was raised in the Medical Journal of Australia (MJA) in 2005. Koczwara, Tattersall, Barton¹⁷ et al argued that introducing a national exit examination “could provide a uniform standard of assessment for all medical school graduates in Australia, as well as for foreign graduates applying to work in Australia”. They also argued that a national examination “could assess medical school outcomes, monitor the effects of curriculum change and provide a benchmark for new medical schools that would help medical curricula evolve to better meet society’s needs.”

1. What is the purpose of an internship?
2. What is the purpose of general medical registration given that independent practice is only possible after a minimum of 4 years of vocational training?
3. Is the current system of core rotations in emergency medicine, surgery and medicine still relevant? Does it need to be adapted to include general practice/community sector (out of hospital) rotations?
4. What are the options for achieving the purpose of internship e.g. could the internship program be amalgamated into medical education so that graduates meet general registration requirements at completion of their medical program
5. Should Australia have a common national exit examination for all medical graduates?
6. Should Australia consider residency programs whereby medical graduates stream directly into vocational training?

¹⁶ Email correspondence dated 4 February 2013.

¹⁷ Koczwara B, Tattersall MHN, Barton MB, et al. Achieving equal standards in medical student education: is a national exit examination the answer? Med J Aust 2005; 182:228-230.

Medical training in Australia

Medical training in Australia is delivered through eighteen Australian Medical Council accredited medical schools. The number of medical schools has increased from 11 in 2000 to 18 in 2007. These new medical schools have commenced graduating medical students with the Australian National University having its first medical graduates in 2007, Griffith University in 2008, Bond University in 2009, the University of Wollongong in 2010, the University of Western Sydney, Sydney Campus of Notre Dame and Deakin universities in 2011. All medical training programs delivered across the eighteen Australian medical schools are accredited by the Australian Medical Council against one set of accreditation standards.

Medical training across the eighteen Australian medical schools is diverse. The first graduate entry medical program in Australia commenced in 1996. In 2011, the University of Melbourne became the first Australian University to offer the primary medical qualification at a Masters Degree level. The duration of medical training ranges from 4 to 6 years depending on the entry requirements. Irrespective of the qualification awarded, all medical graduates of Australian universities are required to complete a 12 month internship to be eligible for general registration with the Medical Board of Australia.

There are two types of students enrolled in Australian medical schools – Commonwealth supported and full fee paying (both domestic and international) students. In a Commonwealth supported place the student makes a contribution to the cost of their degree through the Higher Education Contribution Scheme (HECS). Full fee paying students fully fund their tuition fees. International Full fee paying students can be either privately funded or sponsored by their government or other organisation.

Some medical students occupying Commonwealth supported places are participating in the Bonded Medical Places Scheme (BMPS) or have received scholarships through the Medical Rural Bonded Scholarship Scheme (MRBSS). Bonded Medical Students have a return of service obligation to work in a District of Workforce Shortage (DWS) for a period of time equal to the length of their medical degree. MRBSS recipients must work for six continuous years in locations within Australian Standard Geographical Classification –Remoteness Areas 2 to 5.

There is great diversity amongst the medical student population. The Medical Schools Outcomes Database (MSOD) is an ongoing longitudinal study that it being undertaken by Medical Deans Australia and New Zealand and provides valuable demographic information about the medical student cohort. In 2011, approximately 21% of domestic¹⁸ students were born overseas, of this cohort, 11% were born in India, 11% in New Zealand and 8.5% in China¹⁹. In 2011, 528 of the respondents completing the 2011 Commencing Medical Students Questionnaire (CMSQ) reported that they held a temporary entry permit. Of these international students the highest numbers of students were from Singapore (25.2%), Canada (18.7%) and Malaysia (15.6%).²⁰

18 Domestic students in this context are Australian citizens, and/or New Zealand citizens resident in Australia and/or Australian permanent residents

19 Medical Schools Outcomes Database 2011 CMSQ National Data Report Table 9 <http://www.medicaldeans.org.au/medical-schools-outcomes-database/publications-resources/data-and-progress-reports> Accessed February 2013

20 Medical Schools Outcomes Database 2011 CMSQ National Data Report Table 10 <http://www.medicaldeans.org.au/medical-schools-outcomes-database/publications-resources/data-and-progress-reports> Accessed February 2013

Funding for medical training

The Commonwealth Government enters into funding agreements with universities under the Commonwealth Grants Scheme. These agreements are published on the Department of Industry, Innovation, Science, Research and Tertiary Education website²¹. A review of the 2013 agreements show that all publicly funded universities with a medical school have restrictions on the number of Commonwealth supported and domestic full fee paying students they can enrol. The University of Melbourne 2013 funding agreement states that the University *will not admit more than 45 commencing domestic full fee paying students to its course* and the Flinders University 2013 agreement states that the *University will not admit more than 24 commencing domestic full fee paying students*. The other Universities cannot admit any domestic full fee paying students, with their 2013 funding agreements stating *The University will not enrol domestic full fee paying students in its course or courses of study in medicine*.

Whilst the number of Commonwealth supported and domestic full fee students are regulated through agreements between universities and the Commonwealth government, all universities, (including publicly funded universities) are able to enrol international full fee paying students without any restriction on the number of students. Recognising that the Commonwealth Government has funding agreements with universities there are no formal arrangements in place where universities consult with States and Territories about the availability of future intern positions and workforce requirements.

Between 2006 and 2012, domestic medical graduates in Australia grew by 122%. During the same period, international medical student numbers increased by 85%.²² Appendix A shows the numbers of domestic and international medical graduates per university. It is noted that newer medical schools generally have fewer international full fee paying students than older medical schools. According to the data published in the 15th MTRP Report, in 2013, 18% of students expected to graduate from the University of Sydney will be international full fee paying students, compared to 10% at the University of Western Sydney. The MTRP Report also notes that in 2013, 32.5% of students expected to graduate from Queensland University will be international students compared to 2.6% at the James Cook University²³.

The amount of student contribution paid by Commonwealth supported university students is based on their course of study. The different courses of study are categorised into bands. Medicine is in Band 3, together with dentistry, veterinary science, law, accounting, administration, economics and commerce. The 2013 maximum student contribution amount per equivalent full time student load (EFTSL) for students in Band 3 is \$ 9,792.

21 <http://www.innovation.gov.au/HigherEducation/Funding/CommonwealthGrantScheme/Pages/default.aspx>

22 Medical Training Review panel 15th Report Tables 2.16, 2.17, 2.19, 2.20

23 Medical Training Review Panel 15th Report Tables 2.19 and 2.20

International education market

The higher education sector, including university medical education and training, is a significant Australian export industry. International education activity contributed \$16.3 billion in export income to the Australian economy in 2010–11. In 2010 Australian universities received fee income from international students of approximately around \$3.7 billion²⁴. Australia's share of the international student market increased from 5.1% in 2000 to 7.0% in 2009 making Australia the third largest provider of international education services in 2009, behind the United States (18%), and the United Kingdom (10%)²⁵. Considering the relative size of Australia's population, such high representation amongst the international student market is indicative of the ongoing importance of this sector to Australia, both economically and for communities.

In 2012, some Commonwealth supported students expressed the belief that their international full fee paying colleagues subsidise their education²⁶. A recent analysis by Goulston, Oates, Shinfield and Robinson²⁷ on the cost of medical training suggests that the annual cost of educating a medical student was approximately \$53,093 of which 53% is funded through the Commonwealth Grants Scheme and the Higher Education subsidy. The article also noted that international full fee paying medical students contributed a cross subsidy of approximately 2% (\$619 per year) to the cost of educating a medical student.

1. There is no guarantee of employment for other graduate health professionals. Should there be an exception for medical graduates?
2. Should there be a return of service requirement for all or certain publicly funded intern positions or categories of interns?
3. Should there be any limits on international medical student numbers at Australian universities?
4. What options should be considered to fund training opportunities for medical graduates?
5. Should there be more internships in the private sector? How should they be funded?
6. Should Australian universities support international fee paying students to access internships in their home countries?

24 Norton , A, 2012, *Mapping Australian higher education*, Grattan Institute, Melbourne

25 Australian Social trends, December 2011, Australian Bureau of Statistics <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/4102.0Main%20Features1Dec%202011?opendocument&tabname=Summary&prodno=4102.0&issue=Dec%202011&num=&view>

26 <http://interncrisis.org/>

27 Medical Student Education – what it costs and how is it funded? K Goulston, K Oates, S Shinfield and B Robinson, *Internal Medicine Journal*, Royal Australasian College of Physicians 2012.

Workforce need and planning for intern positions – 2014-2025

2006 COAG Guarantee

At the 14 July 2006, Council of Australian Government (COAG) meeting, States and Territories agreed to *guarantee to provide high-quality clinical placements and intern training for Commonwealth-funded medical and nursing students and to continue to invest significantly in on-the-job and post-graduate training for these health professionals*. All States and Territories have guaranteed Commonwealth funded medical graduates from local (own State/Territory) Universities internship opportunities. Moreover, some States have expanded this guarantee to include domestic full fee paying students of Australian Universities.

The National Partnership Agreement of Health and Hospital Reform (NPA) notes the 2006 COAG Guarantee and further expands on jurisdictional responsibility for postgraduate medical training. The NPA states *“It is anticipated the Commonwealth will be responsible for providing funding for the general practice and private sector postgraduate clinical training and the States and Territories for postgraduate clinical training in the public sector”* (Clause B7).

Workforce modelling undertaken by Health Workforce Australia (HWA) suggests that Australia could either face a shortage of 2,701 doctors in 2025 (if there are no reforms or productivity gains) or face an oversupply of 18,690 doctors should demand be reduced (as a result of new models of care, service reforms and prevention programs).

Summary of innovation and reform scenarios, workforce supply and demand projections, doctors and nurses²⁸

Scenario	2016 (Headcount)			2025 (Headcount)		
	Supply	Demand	Gap	Supply	Demand	Gap
Doctors						
Comparison	93,687	89,903	3,784	109,225	111,926	-2,701
Productivity gain	93,687	87,966	5,720	109,225	106,413	2,811
Low demand	93,687	80,655	13,032	109,225	90,536	18,690

*Health Workforce Australia 2012: Health Workforce 2025 – Doctors, Nurses and Midwives – Volume 1
Comparison scenario – The comparison scenario is a ‘do nothing’ scenario, where it assumes known policy settings are applied up to future point, after which they are held constant.
Productivity Gain scenario – This scenario presents the impact on workforce supply and demand projections of a five percent productivity gain over the projection period. In this scenario, the productivity gain is not attributed to any particular measure, but could include gains achieved through workforce reforms such as changing models of care, adjustments to skill mix, health professionals working to their full or expanded scope of practice, and technology changes. To model this, demand was lowered annually by 0.31 percent to achieve a 5 percent productivity gain over the projection period.
Low Demand scenario – A notional value of decreasing demand by two percentage points was selected for modelling (with a minimum value of one percent).
 Note: States and Territories modelling of medical workforce requirements may differ from HWA projections as they take into consideration detailed capital and service plans in projecting the demand for the future health workforce.

Demand for Internships

Data from the Medical Training Review Panel (MTRP)²⁹ indicates that the number of domestic graduates across Australian universities increased by 122% between 2006 and 2012. This growth is projected to continue until 2016 when the number of domestic graduates would have increased by 144% since 2006. International student numbers have also increased over this period by approximately 140% since 2006. The demand for intern training positions is set to continue as the number of domestic graduates increasing by a further 7% and international graduates by 23% from 2013 to 2016.

28 Table 2: Summary of innovation and reform scenarios, workforce supply and demand projections, doctors and nurses Health Workforce 2025 – Doctors, Nurses and Midwives – Volume 1, Health Workforce Australia 2012.

29 Refer Appendix A.

Supply – Publicly funded Intern training positions

Jurisdiction	Publicly funded Intern positions							% increase 2007-2013
	2007	2008	2009	2010	2011	2012	2013	
NSW	492	630	668	657	756	850	927	188%
VIC	447	454	506	557	625	700	707	158%
QLD	357	411	444	558	644	665	665	186%
SA	213	227	246	230	247	256	276	130%
WA	155	175	228	240	267	282	300	194%
TAS	56	51	62	58	71	75	75	134%
NT	15	24	27	32	35	38	44	293%
ACT	41	58	62	62	78	76	96	234%
Total – States/Territories	1776	2030	2243	2394	2723	2942	3090	175%
Commonwealth							100*	
TOTAL– funded positions 2013							3190	

*The Commonwealth Government made a commitment to fund up to 100 training positions in 2013; However, only 22 positions were filled due to the low demand for positions from international full fee paying graduates.

Commonwealth Additional Medical Internships in 2013

The Commonwealth reached agreement with five States and Territories to provide additional intern places in 2013, and established the Additional Medical Internships 2013 (AMI 2013) initiative to fund additional positions for eligible Australian-trained international graduates, primarily in private hospitals.

On 21 November 2012 the Australian Medical Students' Association (AMSA) and Medical Deans Australia New Zealand (MDANZ) distributed information on behalf of the Department of Health and Ageing, inviting unplaced graduates to apply for the AMI 2013 initiative. Further information was sent to those graduates who expressed interest in late November and early December 2012, asking them to confirm their eligibility and interest. Responses were received from 115 individuals, of these 60 applicants were assessed as eligible. Others were ineligible, for instance because they had completed the majority of their training overseas, or would not have completed their medical studies in time to commence an internship at the beginning of 2013.

Of the 60 eligible applicants that were offered a position, 22 accepted the offer, 30 rejected the offer, and 8 did not respond. Offers were rejected for a number of reasons, including the applicant having received a late state/territory or overseas offer, or being unwilling to move interstate to take up a position or undertake return of service. Further work is occurring with private hospitals and the AMSA to obtain information on reasons for declined offers.

Under the AMI 2013 initiative, the Australian Government was able to offer an internship to every eligible Australian-trained international full fee paying medical graduate who had not already received a place.

Rural Distribution

A common factor in HWA and states and territories workforce planning is the need for better distribution of the medical workforce across geographical locations. A recent study³⁰ of the key drivers to getting a stable medical

30 Nature of association between rural background and practice location: A comparison of general practitioners and specialists; Matthew R McGrail^{1,2*}, John S Humphreys² and Catherine M Joyce, <http://www.biomedcentral.com/1472-6963/11/63>.

workforce in rural areas, noted that “GPs with at least 6 years of their childhood spent in a rural area were significantly more likely than those with 0-5 years in a rural area to be practising in a rural location, whilst specialists with at least 11 years rural background were significantly more likely to be practising in a rural location”.

Australian medical schools have a 25% quota of rural students, however, some metropolitan based schools are increasingly constrained in their ability to attract and retain students from a rural background.

In 2012, all unplaced international full fee paying graduates from Australian Universities were invited to participate in the Commonwealth Government offer process for additional intern training positions in Australia. The Commonwealth offer included a return of service requirement for graduates to work in a District of Workforce Shortage for 12 months over a 5 year period. A significant number of IFF graduates chose not to participate in the Commonwealth offer process.

Anecdotal advice suggests that the return of service requirement was a factor. The 2011 CMSQ National Data Report³¹ supports the influence of prior residence in the future location of medical practice: *“location of longest residence is likely to have an effect on where respondents stated they would prefer to practice in the future, with those living in cities less likely to choose to practice in rural locations which may suggest that medical students who are migrants or temporary permit holders are less likely to practise in rural locations.”* The Australian Medical Students Association (AMSA) is currently surveying IFF graduates to ascertain the reasons for the low uptake.

International Medical Graduates

Recent public discussion on the demand and supply of intern and vocational training places for Australian trained graduates has advocated for the reduction of International Medical Graduates (IMGs) from training and non specialist positions as a strategy to absorb increased numbers of international full fee paying medical graduates of Australian universities. IMGs in Australia are not a homogenous group and include both those on temporary resident visas and those who have migrated permanently to Australia and are Australian citizens or permanent residents. IMGs working in Australia include world renowned specialists who are experts in their field; Australian citizens who are working towards achieving general registration by completing Australian Medical Council examinations; and those providing vital specialist and general practitioner services in areas of need.

States and Territories advise that it is not possible to replace an experienced IMG with a new intern without impacting on patient care, quality and safety. However, states and territories concur that as increased numbers of Australian trained graduates progress through the health system, the demand for international medical graduates will decline. Between 2006-07 and 2010-11 there has been a 34.2% decrease in visas granted to international medical graduates (4890 to 3220)³². This trend is expected to continue as health workforce needs are increasingly filled by Australian graduates.

1. Would increasing the number of Commonwealth supported medical places for domestic rural students be an effective strategy to address rural distribution issues?
2. Should rural hospitals reserve intern places for graduates from rural Australia?
3. Do you think the mix of IMGs in Australia’s medical workforce will change as increased numbers of Australian trained graduates enter the system?

31 2011 CMSQ National Data Report p 29.

32 Medical Training Review Panel 15th Report Table 5.1 Major classes of visa granted to medical practitioners, 2006-2007 to 2010-2011.

Acronyms

AHMAC	Australian Health Ministers' Advisory Council
AHMWC	Australian Health Workforce Ministerial Council
AHPRA	Australian Health Practitioner Regulation Agency
AMC	Australian Medical Council
AMI 2013	Additional Medical Internships 2013
AMSA	Australian Medical Students' Association
AIHW	Australian Institute of Health and Welfare
BMPS	Bonded Medical Places Scheme
COAG	Council of Australian Governments
CPMEC	Confederation of Postgraduate Medical Education Councils
CSP	Commonwealth Supported Place
HECS	Higher Education Contribution Scheme
HETI	Health Education and Training Institute (NSW)
HWA	Health Workforce Australia
IFF	International Full fee paying medical students (at Australian Universities)
IMG	International Medical Graduate (trained overseas)
MBA	Medical Board of Australia
MDANZ	Medical Deans Australia and New Zealand
MSOD	Medical Schools Outcomes Database
MTRP	Medical Training Review Panel
NPA	National Partnership Agreement of Health and Hospital Reform
NRAS	National Registration and Accreditation Scheme
NTPMC	Northern Territory Postgraduate Medical Council
OECD	Organisation for Economic Cooperation and Development
PMCV	Postgraduate Medical Council of Victoria
PMCQ	Postgraduate Medical Education Council of Queensland
PMCWA	Postgraduate Medical Council of Western Australia
PMCT	Postgraduate Medical Education Council of Tasmania
SAIMET	South Australian Institute of Medical Education and Training
SCoH	Standing Council on Health

Medical Student growth 2006-2016

Domestic and International Medical School Graduates in Australian Universities by State/Territory, 2006-2016

Domestic and International Medical School Graduates in Australian Universities by State/Territory, 2006-2016																						
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016											
Domestic (D) International (I)	D	I	D	I	D	I	D	I	D	I	D	I										
New South Wales																						
Newcastle/JUNE	61	16	77	18	85	21	104	21	70	20	156	36	172	30	187	29	179	19	170	24		
Sydney	147	33	202	47	208	54	221	35	228	35	247	45	230	52	261	66	270	70	270	70		
Notre Dame Sydney								0	112	0	106	0	113	0	112	0	112	0	112	0		
UNSW	166	32	186	23	177	39	163	36	194	38	210	51	214	60	227	65	214	63	204	69		
UWS						0	95	9	117	13	115	24	104	18	100	26						
Wollongong					63	4	67	10	68	11	75	8	78	7	74	12	74	12	74	12		
TOTAL NSW	374	81	455	85	462	112	456	111	748	103	888	152	914	163	981	191	953	182	930	201		
Victoria																						
Monash	123	52	137	39	159	52	165	74	181	94												
Monash PG						41	5	76	7	74	6	67	22	70	20	70	20	70	20	20		
Monash UG						175	67	276	65	244	57	258	52	249	56	249	56	249	56	249	56	
Deakin						111	0	132	1	139	6	131	1	130	16	130	16	130	16	130	16	
Melbourne	211	74	186	85	199	88	198	97	212	90												
Melbourne MD																305	26	315	30	315	30	
Melbourne PG						88	17	73	11	81	14											
Melbourne UG						145	74	157	73	171	78											
TOTAL VIC	334	126	323	124	358	140	363	171	393	184	560	163	714	157	709	161	761	101	764	122	764	122
Queensland																						
Bond (a)						55	4	74	1	81	1	73	0	86	1	83	0	85	2	85	0	
Griffith (a)			70	0	116	2	151	0	133	0	151	0	155	0	154	0	160	2	170	4		
Queensland	215	9	284	20	238	51	279	67	332	77	298	110	310	142	315	152	305	142	300	235	300	275
James Cook	74	1	65	1	66	0	82	2	94	3	88	2	95	4	146	4	142	21	186	34	182	13
Total Qld	289	10	349	21	374	51	532	75	651	81	600	113	629	146	702	157	684	163	731	273	737	292

Domestic and International Medical School Graduates in Australian Universities by State/Territory, 2006-2016																								
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016													
Domestic (D) International (I)	D	I	D	I	D	I	D	I	D	I	D	I	D											
Western Australia																								
Notre Dame WA(a)			75	0	80	0	86	0	99	0	109	0	98	0	102	0	104	0	104	0				
UWA	118	7	126	4	142	10	182	15	207	25														
UWA PG						56		61		62		61		65		60		60		5				
UWA UG						136	27	117	21	115	36	145	26	146	20	146	20	146	20	146	25			
Total WA	118	7	126	4	217	10	262	15	293	25	291	27	287	21	275	36	308	26	315	20	310	30		
South Australia																								
Adelaide	92	36	85	41	98	48	83	38	94	40	95	22	122	31	136	29	137	21	171	17	171	17	175	15
Flinders	66	26	77	27	75	22	74	28	102	14	110	19	123	19	113	12	142	25	140	25	140	25	148	25
Total SA	158	62	162	68	173	70	157	66	196	54	205	41	245	50	249	41	279	46	311	42	311	42	323	40
Tasmania																								
Tasmania	62	12	58	13	64	14	73	21	89	11	68	28	106	17	99	23	99	29	100	26	100	26	100	25
Australian Capital Territory																								
ANU(a)		71	1	90	4	4	72	6	83	4	77	4	91	9	92	2	92	2	90	6	90	6	90	6
Total	1335	298	1544	316	1738	401	1915	465	2259	474	2549	479	2960	552	3040	583	3204	558	3264	671	3254	671	3254	716
Annual Increase			209	18	194	85	177	64	344	9	290	5	411	73	80	31	164	-25	60	113	-10	113	-10	45
Annual Increase (%)	16	6	13	27	10	16	10	16	18	2	13	1	16	15	3	6	5	-4	2	20	2	20	0	7

(a) First students graduated from ANU in 2007, Notre Dame (Fremantle) and Griffith in 2008, Bond in 2009 and Wollongong in 2010.
(b) First students will graduate from Deakin, Monash PG, Notre Dame Sydney campus and University of Western Sydney (UWS) in 2011. First students will graduate from Melbourne Doctor of Medicine program in 2014.
Source: Medical Deans Australia and New Zealand Inc.
As provided in the Medical Training Review Panel Fifteenth Report.

Intern training in overseas countries

The Medical Board of Australia internship requirements differ from those that operate in other countries. The United Kingdom, New Zealand, Malaysia and Singapore have postgraduate year 1 internship programs. North American (Canada and United States of America) offer residency programs which require graduates to sit licensing/ certification examinations prior to achieving full registration. All comparable nations with the exception of the United Kingdom prioritise entry to training programs for graduates who are also citizens of the country. Some Canadian and USA programs further require applicants to be legal residents of particular States/Provinces. Return of service requirements also apply in Canada and Malaysia.

United Kingdom

In the United Kingdom, the Foundation years³³ are a two year generic program designed to form a bridge between medical school and specialist/general practice training. Satisfactory completion of foundation year 1 (F1) is necessary for the purposes of full registration by the General Medical Council (GMC). Satisfactory performance in foundation year 2 (F2) leads to the award of a Foundation Achievement of Competence Document (FACD) which indicates that the doctor is ready to enter a core, specialty or general practice training programme³⁴.

The Foundation syllabus is divided into two sections with the first section emphasising the skills and role of the doctor as a professional, scholar, communicator and teacher. The second section focuses on the clinical competencies necessary for good clinical practice. There are no core rotation requirements and each rotation is assessed against the syllabus. The Postgraduate Deaneries are responsible for managing and delivering the Foundation training. Local Education Providers (Medical Schools) remain responsible for signing off on the trainees' readiness for full registration. It is understood that funding for the Foundation years are the responsibility of the higher education sectors.

International students of UK medical schools are eligible to participate in the Foundation year program as this remains part of their higher education requirements. Upon completion of Foundation training, doctors who are not UK or EEA nationals but who graduated from UK medical schools are eligible to apply for speciality training positions as part of Round 2 (to vacant positions following the recruitment of UK and EEA nationals).

33 <http://www.foundationprogramme.nhs.uk/pages/home/about-the-foundation-programme>.

34 The UK Foundation Programme Curriculum, July 2012. <http://www.foundationprogramme.nhs.uk/pages/home/curriculum-and-assessment/curriculum2012>.

Canada

There is no national registration process in Canada. Each Province has its own rules, requirements and processes for licensure. In each province, the local College of Physicians and Surgeons manages the licensing process. There has been agreement by the Federation of Medical Regulatory Authorities of Canada (FMRAC) to establish a national standard for licensure in all provinces. These licensure requirements include the requirement to be a Licentiate of the Medical Council of Canada (LMCC). The Medical Council of Canada (MCC) grants the LMCC to graduate physicians who have satisfied the eligibility requirements and passed the Medical Council of Canada Qualifying Examination Parts I and II.

Review of different provinces shows that while they all manage their own registration processes there are broad similarities as to the type of registration categories and how applicants progress from one category to another. While undertaking postgraduate training doctors are granted a Postgraduate Education Certificate of Registration, which must be renewed annually. The holder of a Postgraduate Education Certificate of registration can only practise medicine as required by the postgraduate program they are undertaking. Doctors can apply for an Independent Practice Certificate of Registration after certification by examination by either the Royal College of Physicians and Surgeons of Canada or the College of Family Physicians of Canada.

In their last year of medical school, medical students choose a speciality training program affiliated with one of the 17 Canadian Faculties of Medicine. These university based degree programs are responsible for providing residency programs that are accredited by either the College of Family Physicians or College des medecines du Quebec(in Quebec) or by the Royal College of Physicians and Surgeons of Canada. The internship as a postgraduate training stream was replaced in 1994. The minimum duration for residency training is a two year family medicine program and the maximum is 6 or 7 years in specific Royal College accredited specialties.

Funding for postgraduate medical education and training is provided by provincial governments in accordance with their medical workforce requirements. Each province guarantees a training stream through to certification for graduates of their province. Provinces also determine the mix of family medicine and specialty training that will be offered.

Entry level postgraduate year 1 positions across Canada is offered via the main residency match. Two streams are offered – one for graduates of Canadian medical schools and the second for international medical graduates (IMGs). IMGs are also eligible to apply for vacant positions in the Canadian medical graduate stream. The IMG stream includes Canadian citizens who have achieved their medical qualifications overseas (outside of Canada). A recent study by the CaRMC on Canadians studying abroad suggested that the majority of students intended to return to Canada for their postgraduate medical training and clinical practice. This is the key impetus for the establishment of a separate IMG stream.

Data from the CaRMS indicates that Canada has approximately 2800 residency positions available via the Canadian graduate stream and an additional 400-500 positions in the IMG stream³⁵. The eligibility criterion for both streams requires graduates to be able to live and work in Canada. All provinces, except Quebec and Alberta have return of service obligations whereby applicants are required to work in an area of workforce shortage. Alberta has Alberta residency requirements for IMGs³⁶.

Canadian medical schools have a limited number of international students. The CaRMS advises that the number of international medical students in Canada is less than 30 students annually. International students in Canada are also required to comply with the eligibility requirements for the residency programs, which can include permanent residency/ citizenship for some Provinces. As a result, some Provinces do not offer residency programs to international students.

35 Source, Sandra Banner, Executive Director/CEO, Canadian Resident Matching Service via email (January 2013)

36 Applicants must have either (1) been a continuous resident of the province of Alberta for 6 (six) or more months up to and including January 11, 2013 or (2) must have attended an accredited Alberta high school full time for 2 or more years or (3) must have attended an accredited post secondary institution in Alberta full time for 2 or more years.

Ireland

Graduates of Irish medical schools are required to complete a one year internship in approved hospitals, of which at least three months must be in Medicine and three months in Surgery. Internship training may also incorporate rotations of between two and four months in Emergency Medicine, General Practice, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Anaesthesia (to include perioperative medicine) and Radiology.

All intern positions are incorporated within an Intern Training Network, each of which is linked to an established Medical School. The medical schools are contractually obliged to develop and provide the intern training program under Service Level Agreements with the Health Service Executive. Completion of the internship year leads to the granting of a Certificate of Experience by the Medical Council, which is a requirement for ongoing practice within the Irish health system.

There is no guarantee of internship for either domestic or International students. Access to internship positions is through a matching process, with Irish/EU/European Economic Area citizens who are graduates of Irish medical schools ranked before any other candidates. Non-EEA citizens will be ranked after all eligible candidates who do not require a permit to work in Ireland. The proportion of International students in Irish medical schools is very high – in 2003/04 the proportion of non-EU students in Irish medical schools was reported to be 61% of total student numbers. Only a small proportion of these apply for internships in Irish hospitals and no international students are guaranteed positions.

European Union (EU)

Several EU countries have chosen to incorporate the equivalent clinical practical training into the pre-graduation stage e.g. France, Germany, Belgium, and Netherlands and therefore there is no requirement for internship post graduation.

United States of America

Entry into publicly funded US Medical Schools and University Hospitals is restricted to US citizens who are also legal residents of that State. Medical graduates progress to specialist training via a residency program. The National Resident Matching Program³⁷ runs the computer match which allocates graduates to programs based on criteria established by respective colleges/training institutions. Selection to Residency programs is via a merit selection process which includes an interview. There are two main categories of applicants – sponsored applicants who are domestic students of local universities; and independent applicants who may be a mix of US, Canadian medical graduates and IMGs.

International students who complete medical training in USA are eligible to apply for residency programs in US hospitals. Funding requirements for publicly funded institutions require offers to be made to US citizens who are also legal residents of the State. US citizens from other States and International students are able to apply to vacant positions. However they are not guaranteed a position. International medical students are able to apply via a merit selection process to private institutions for residency positions.

37 http://www.nrmp.org/res_match/policies/map_main.html#apps_eligible

New Zealand

The Medical Council of New Zealand (MCNZ) is responsible for setting the registration standards for medical practice in New Zealand. Medical graduates from Australian and New Zealand medical schools can apply for registration in a general scope of practice following a minimum of 12 months working in an accredited New Zealand hospital. Graduates are required to complete four clinical rotations which must be a minimum of 10 weeks in duration. Two of these rotations must be medical and surgical specialities. Graduates are also required to be certified as competent in cardiac life support and be recommended for registration by their Intern Supervisor.

Medical graduates apply for intern positions via the Advanced Choice of Employment (ACE) Scheme³⁸. International medical students in New Zealand are eligible to apply for vacant intern training positions following the allocation New Zealand and Australian citizens³⁹.

Malaysia

Medical graduates are required to undertake a compulsory period of internship upon graduation. The duration of internship is for two years. Graduates are required to complete four month rotations in Surgery, orthopaedics, medicine, paediatrics, obstetrics & gynaecology and Accident & Emergency. The purpose of internship as defined by the Malaysian Medical Council is to “provide fresh graduates with an educationally sound experience that professionalizes new medical graduates not only with appropriate knowledge, skills and experience but above all attitudes⁴⁰”

Upon achievement of full registration, doctors in Malaysia are also required to undertake “compulsory national service” which is a minimum of two years in a public facility⁴¹. The compulsory national service was established in 1971 in response to a shortage of qualified medical practitioners. Doctors who have qualified outside of Malaysia can apply for an exemption to the compulsory national service if they are trained in priority subspecialties or have served at public/ private universities or military hospitals for a period of 3 years.

38 The Advanced Choice of Employment is a collaborative recruitment scheme that assists applicants seeking for first year House Officer positions within the New Zealand health system.

39 The New Zealand Medical Students Association notes that the ACE Scheme prioritises New Zealand and Australian citizens ahead of citizens of other countries for first year positions in line with Immigration policy. <http://www.nzmsa.org.nz/projects/international-students/>.

40 Malaysian Medical Council – http://mmc.gov.my/v1/index.php?option=com_content&task=view&id=17&Itemid=40.

41 A public facility in Malaysia for the purposes of compulsory service as defined under Article 132 of the Federal Constitution can be a government healthcare facility, the Ministry of Health or other government agencies as determined by the Director General of Health http://mmc.gov.my/v1/index.php?option=com_content&task=view&id=15&Itemid=38.

