
Submission

Senate Inquiry into factors affecting the supply of health services and medical professionals in rural areas

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Introduction

On 13 October 2011 the Senate asked the Community Affairs Committee to inquiry into factors affecting the supply of health services and medical professionals in rural areas.

The terms of reference for the Inquiry are to consider:

- (a) the factors limiting the supply of health services and medical, nursing and allied health professionals to small regional communities as compared with major regional and metropolitan centres;
- (b) the effect of the introduction of Medicare Locals on the provision of medical services in rural areas;
- (c) current incentive programs for recruitment and retention of doctors and dentists, particularly in smaller rural communities, including:

- (i) their role, structure and effectiveness,
 - (ii) the appropriateness of the delivery model, and
 - (iii) whether the application of the current Australian Standard Geographical Classification – Remoteness Areas classification scheme ensures appropriate distribution of funds and delivers intended outcomes; and
- (d) any other related matters.

Charles Sturt University is Australia's largest regional university with major campuses in Albury-Wodonga, Bathurst, Canberra, Dubbo, Goulburn, Orange and Wagga Wagga. It operates Regional University Centres in Griffith, Deniliquin and Parkes, and has recently announced the establishment of a new Centre in Wangaratta (Victoria) and a new campus in Port Macquarie (NSW).

Charles Sturt University also delivers one of the most comprehensive suites of health workforce programs in Australia, targeting the specific needs and circumstances of rural and regional communities. More than 70% of its on-campus health and human services students are from a rural or regional area, and more than 80% of those students commence employment in a rural or regional area. Its success in attracting and retaining Australian rural health graduates in rural employment gives the University special expertise and knowledge about the circumstances contributing to shortages, and the strategies that work to address them.

Through the University's Strategy, Inland Health Strategy and Health Workforce Plans, Charles Sturt University has been working consistently over many years to expand opportunities for rural students to train for rural health careers in areas of shortage.

The University's response principally addresses the factors limiting the supply of health services and medical, nursing and allied health professionals in regional communities.

Factors limiting the supply of health services and medical, nursing and allied health professionals in regional communities

Rural health in Australia is generally characterised by higher rates of mortality, poorer health outcomes and chronic shortages of doctors and other primary health professionals.

Between 2004 and 2006 the Australian Institute of Health and Welfare (AIHW) found that there were 4,600 unnecessary deaths in rural Australia relative to comparable populations living in major cities. It found that the major causes of 'excess deaths' in rural Australia include coronary heart disease (20% of excess deaths), other circulatory disease (17%), chronic obstructive pulmonary disease (9%), motor vehicle accidents (8%) and suicide (4%).¹

These figures reinforce findings by the Australia Bureau of Statistics which reported that, in, 2008 the number of deaths for every 100,000 people who usually resided outside major cities was 42% higher than those who lived in major cities. It found that rural and remote people 44% more likely to have died from ischaemic heart disease than those in major cities; 31% more likely to die from a stroke; nearly twice (1.9 times) as likely to die from hypertensive disease (high blood pressure); 70% more likely to die from heart failure; three times (3.08 times) more likely to die after a transport accident; and 66% more likely to die from suicide.²

Health outcomes for Indigenous Australians, who comprise a significant portion of many rural and remote communities in NSW, continue to be below the levels expected in a developed country. The AIHW reported in 2010:

"For the period 2005–2007, the life expectancy at birth was estimated to be 67 years for Indigenous males and 73 years for Indigenous females. In contrast, life expectancy at birth for non-Indigenous Australians for the same period was 79 years for males and 83 years for females. This is a difference of 12 years for males and 10 years for females".³

Residents of Western NSW generally (the worst performing area of NSW) have a life expectancy 4.5 years lower than a resident of Northern Sydney (the area with the highest life expectancy in NSW).⁴

Despite various attempts to resolve this situation, Rural Health Workforce Australia (RHWA) recently report that while "... mortality rates across all parts of the country fell steadily between 1997 and 2006, the mortality gap between the major cities and other areas remained fairly constant".⁵

¹ Australian Institute of Health and Welfare (2011) Australia's Health 2010. Cat. no. AUS 122. Canberra. p.248 downloaded from <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442452962>.

² Australian Bureau of Statistics (25 March 2011) Health Outside Major Cities. Canberra. Downloaded from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features30Mar+2011>

³ Ibid. Australian Institute of Health and Welfare (2010) p233.

⁴ NSW Health (2011) Health Professionals Workforce Plan Taskforce: Discussion Paper to inform and support the NSW Government's Health Professionals Workforce Plan. Sydney p.16. Downloaded from http://www.health.nsw.gov.au/resources/workforce/hpwp/pdf/hpwp_discussion.pdf.

⁵ Rural Health Workforce Australia (2011) Submission to the Health Standing Committee Parliamentary Inquiry into Overseas Trained Doctor. Melbourne. p. 4. Downloaded from <http://www.aph.gov.au/house/committee/haa/overseasdoctors/subs/sub107.1.pdf>.

A contributing factor to higher rates of mortality, poorer health outcomes and higher incidence of chronic disease is the chronic mal-distribution of medical and health professionals in Australia. Rural and remote Australia has substantially fewer primary health professionals per 100,000 of population compared to major cities. (Table A and Table B below). This mirrors similar shortages of doctors per 100,000 of population compared to major cities as shown in Chart A below.

Table A: Persons employed in allied health occupations: number per 10,000 population, Remoteness Areas ⁶

Occupation	Major City	Inner Regional	Outer regional	Remote	Very Remote
Audiology	0.51	0.33	0.12	0.18	0.00
Dietetics	1.21	0.78	0.76	0.61	0.59
Hospital pharmacy	1.09	0.62	0.48	0.18	0.15
Medical Imaging	5.05	3.62	2.52	2.02	0.78
Occupational Therapy	3.19	2.31	1.86	1.37	1.42
Orthoptics	0.31	0.12	0.03	0.00	0.00
Orthotics/prosthetics	0.23	0.14	0.06	0.00	0.00
Physiotherapy	6.14	4.35	3.58	3.65	1.57
Podiatry	1.06	0.78	0.53	0.44	0.00
Psychology	5.92	3.44	2.43	1.87	0.83
Social work	5.45	3.85	3.36	2.51	1.27
Speech pathology	1.73	1.42	1.16	1.23	0.59

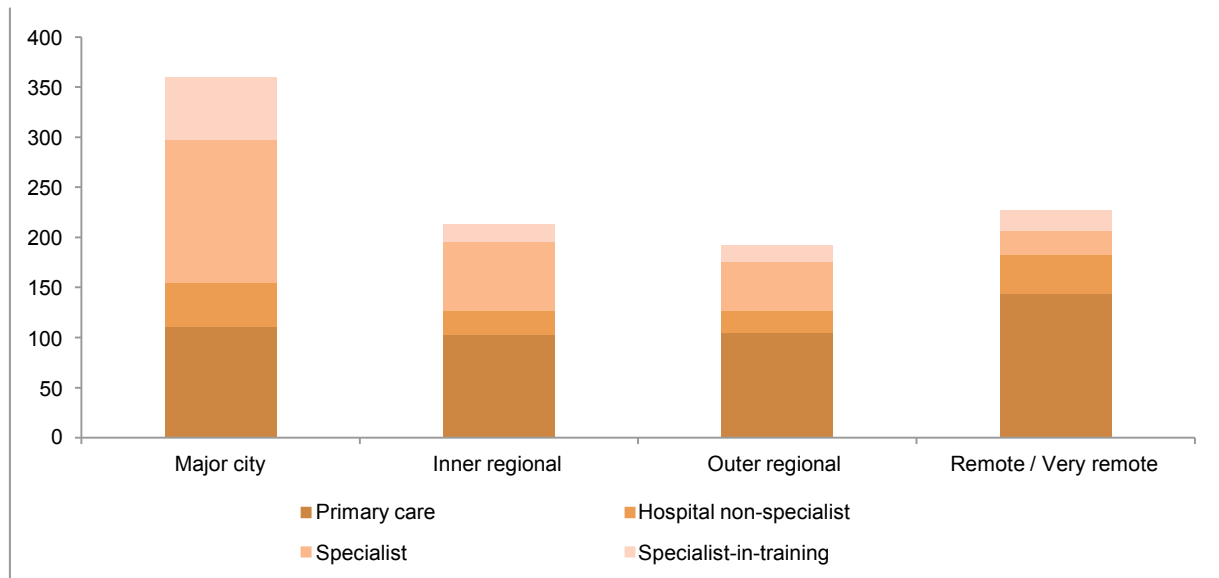
Table B: Persons employed in health occupations: number per 100,000 population, Remoteness Areas, 2006 ⁷

Occupation	Major cities	Inner regional	Outer regional	Remote	Very remote
Dental workers	159	119	100	60	21
Nursing workers	1,058	1,177	1,016	857	665
Pharmacists	84	57	49	33	15
Complementary therapies	82	82	62	40	11
Optometrists	18	12	10	3	-

⁶ Australian Institute of Health and Welfare. (2006). Labour Force – Health. Canberra p 63. Downloaded from <http://www.aihw.gov.au/labourforce/health.cfm>.

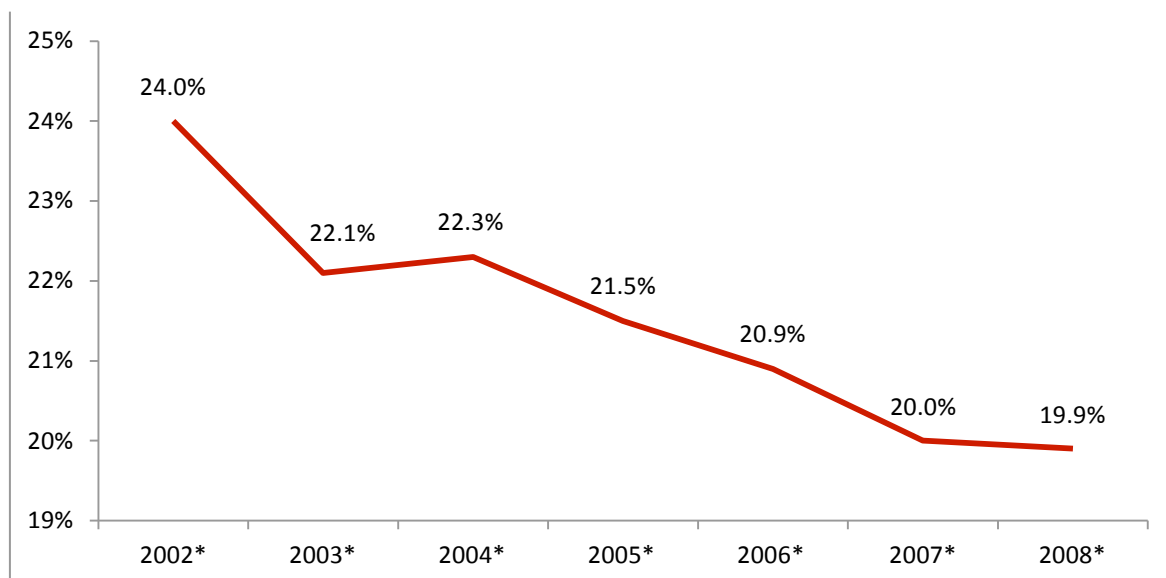
⁷ Ibid and Australian Institute of Health and Welfare. (2009) Dental Labour Force 2007. Canberra: Commonwealth of Australia and Australian Institute of Health and Welfare. (2009). Eye Health Workforce in Australia. Canberra: Commonwealth of Australia.

Chart A: Clinicians per 100,000 by Remoteness Category 2009⁸



Compounding the mal-distribution of medical practitioners in rural and remote areas, there has been a steady decline in the number of rural GP's with procedural skills (eg. GPs with procedural training in Obstetrics, Anaesthetics, General Surgery) as a proportion of the rural medical workforce between 2002 and 2008 (see Chart B).

Chart B: Proportion of GP's Providing Procedural Services in RRMA 4 -7⁹



Shortages of health and medical professionals are a major contributor to the inaccessibility of primary health care services in rural and remote areas.

⁸ Australian Institute of Health and Welfare (2011). Medical Labour Force 2009. AIHW bulletin no. 89. Cat. no. AUS 138. Canberra: AIHW. Downloaded from <http://www.aihw.gov.au/publication-detail/?id=10737419680>.

⁹ Rural Health Workforce Australia (2008a). Medical Practice in Rural and Remote Australia: Minimum Data Set Report 2008. Melbourne p.16. Downloaded from http://www.rhwa.org.au/client_images/805459.pdf.

In 2011 the AIHW published its report on access to health services by remoteness. The analysis of this report by the National Rural Health Alliance (NRHA) found that in 2006/7 (the latest year for which statistics are available) that rural and remote Australians received 12.6 million fewer Medicare services in 2006/7 relative to comparable populations in major cities. Added to this, rural people received 11 million fewer pharmaceutical scripts relative to comparable major city populations.¹⁰

The AIHW report concluded that in 2006–07 for every Medicare consultation provided to a resident of a major city, there were 0.86 consultations provided to residents in Inner Regional areas, 0.79 in Outer Regional, 0.69 in Remote and 0.59 in Very Remote.¹¹

The other consequence of the inaccessibility of primary health services in NSW and Australia is reflected in under-spending on rural health. The NRHA analysis found that under-utilisation of Medicare, PBS, aged care and other primary care health services in rural and remote areas saved the Commonwealth Government \$3 billion in 2006/7.¹²

AIHW reported:

“Lower expenditure levels were especially pronounced for other allied health professional services, with inner regional residents receiving 70% of the per person expenditure for residents of major cities, while the per person expenditure levels for the most remote Australians was only 8% of that for major city residents”.¹³

The inaccessibility of primary health care services in rural areas has a direct impact on the provision of hospital and acute care services in rural and remote areas. The NRHA analysis found that under-spending on rural primary care results in an increase in hospital spending of some \$829 million nationally, as rural people utilise hospital services to compensate for the inaccessibility of GPs and other primary health care professionals in their areas.¹⁴

The NRHA notes:

“To put it simply, hospitals are providing rural people with the primary and aged care that is often not available in many of their home areas. The Alliance estimates that, overall, country people experienced an extra 60,000 episodes of acute care in 2006-2007 and about 190,000 more episodes of overnight hospital stay than would have been the case at Major Cities rates”.¹⁵

Another contributing factor is access to essential diagnostic and treatment modalities and the qualified health staff required to provide them. A recent study from Queensland found that rates of death among rectal cancer patients increase by 6% for every extra 100 kilometres a patient

¹⁰ National Rural Health Alliance (2011). Australia's Health System Needs Re-Balancing: A Report on the shortage of primary care services in rural and remote areas. Canberra p 17-18. Downloaded from <http://nrha.ruralhealth.org.au/cms/uploads/publications/nrha-final-full-complementary-report.pdf>.

¹¹ Australian Institute of Health and Welfare (2011) Australian Health Expenditure by Remoteness: A comparison of rural, regional and city health expenditure. Canberra p.18. Downloaded from <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442475422&libID=6442475403>.

¹² Ibid. National Rural Health Alliance (2011), p 4.

¹³ Ibid. Australian Institute of Health and Welfare (2011). p.viii.

¹⁴ Ibid. National Rural Health Alliance (2011), p 5.

¹⁵ Ibid. National Rural Health Alliance (2011), p 5.

lives from a radiation therapy facility; 16% for those living between 100 and 199 kilometres away; and, 30% for those living 200-399 kilometres away.¹⁶

A survey of Australia's radiology workforce by the Royal Australian and New Zealand College of Radiologists (RANZCR) found that while "... the total number of radiologists across Australia has increased since 2000, less than 25% of radiologists serviced a third of the population in rural and regional areas" and there was a national shortfall of about 40 radiology machines.¹⁷

The Effectiveness of Current Approaches to Managing Rural Health Workforce Supply

Rural health workforce policy cannot be disconnected from the broader policy considerations relating to health funding and service provision.

It is widely recognised that the health sector does not operate like an ordinary market. Increases in workforce supply in traditional markets tends to drive down prices as services become more available and contestable. In the health market, however, an increase in workforce supply tends to be absorbed through parallel increases in consumption. As a result, increases in the health workforce can be directly linked to increased costs on the public health budget.

Australian Governments have historically relied on supply-side policies to regulate the number of doctors and health professionals entering the workforce. By controlling the supply of health and medical students into the workforce, governments can manage consumer demand and the resultant cost of health services to the public purse.

In reality managing workforce supply is not particularly effective in controlling consumer demand for services. Rather, it caps the amount of health services that are available to the general population, therefore capping the cost of health services.

This is not without risk. Poorly designed or administered, this can distort the market by encouraging health practices to locate to areas where demand and efficiencies can be maximised – generally, major cities. This can contribute to declines in medical and health professionals in less populated or 'harder to service' areas, such as rural communities.

Recognising this, governments have more recently changed the policy mix in an attempt to better manage consumer demand by focussing on improving health through prevention and early intervention strategies. There has also been a focus on increasing workforce supply through the better utilisation of the existing workforce, including expanded scope of practice and increased use of team based care, rather than through the direct expansion of health professionals. While these strategies will contribute to better management of demand in the future, they will not directly address the chronic mal-distribution of medical and health professionals in rural and regional areas.

¹⁶ Creswell, A (19 September 2011). Distance a Killer for Cancer Patients. The Australian. Downloaded from <http://www.theaustralian.com.au/news/health-science/distance-a-killer-for-cancer-patients/story-e6frg8y6-1226140369258>.

¹⁷ Ede, C (8 October 2011). Concern over Radiotherapy Access. news.com.au. Downloaded from <http://www.theaustralian.com.au/news/breaking-news/concern-over-radiotherapy-access/story-fn3dxiwe-1226161907112>.

To ameliorate the problem of mal-distribution in rural and regional areas, the Government has sought to influence the composition of the medical student population in particular to increase the likelihood of students relocating to rural practice. This section analyses the effectiveness of these strategies.

In the higher education context, there have been two major strategies:

- (1) increasing the number of rural students studying medicine; and
- (2) exposing metropolitan origin students to rural practice and lifestyles to encourage them to consider rural practice as a career option.

Unfortunately, as described below, the evidence suggest that current approaches are unlikely to deliver an increase in the number of Australian medical graduates in rural practice to a level that will turn around current shortfalls, address expected retirements and departures from the rural medical workforce, and meet projected growth in demand arising from increases in rural populations and the ageing of rural communities. This will impact on the capacity of government to improve the management of consumer demand (eg. prevention, early intervention, team based care) in rural and regional areas.

(a) Increasing the number of rural students enrolled in medicine

There is substantial national and international evidence to demonstrate that rural students are significantly more likely to practice in rural areas than their urban counterparts.

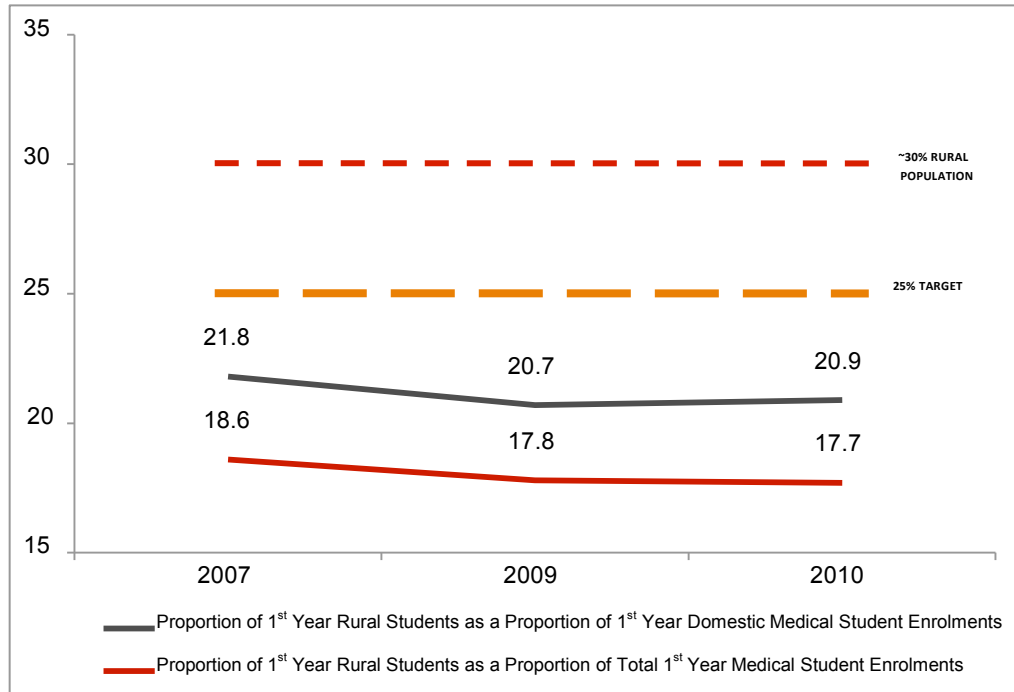
To increase the number of rural students undertaking medical education, the Federal Government has established a target that 25% of all commencing domestic medical students are of rural origin.

The Medical Training Review Panel reports annually on the number of medical students of rural origin enrolled in participating medical education programs in Australia as a proportion of total domestic first-year enrolments.¹⁸ Since consistent reporting of the program commenced in 2007 (noting that no figures were available for 2008) the program has failed to achieve the minimum enrolment target set by the Government, with total enrolments declining between 2007 and 2010.

As shown in Chart C, between 2007 and 2010 the proportion of rural origin students enrolled in medical schools has declined from 21.8% to 20.9% nationally as a proportion of domestic enrolments. When rural origin enrolments are compared to total medical student enrolments (that is, both domestic and international student enrolments) the proportion of rural origin students declines further to 17.7% nationally.

¹⁸ See generally: <http://www.health.gov.au/internet/main/publishing.nsf/Content/work-pubs-mtrp>

Chart C – Proportion of Rural Origin Students in Australian Medical Programs

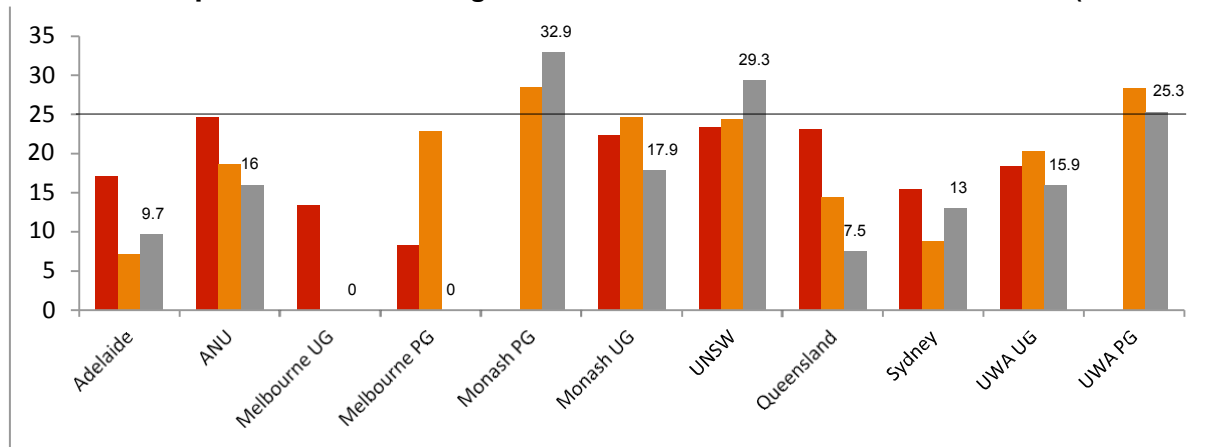


A factor in the failure to meet minimum targets is significant variations in the performance of different medical schools. Chart D shows the performance of Group of Eight (Go8) universities. Chart E shows the performance of other universities.

Of the ten programs offered by the Go8 (noting that Melbourne has no commencing enrolments in 2009 as it introduces the Melbourne Model) only three programs met or exceeded the 25% enrolment requirement (33% of providers).

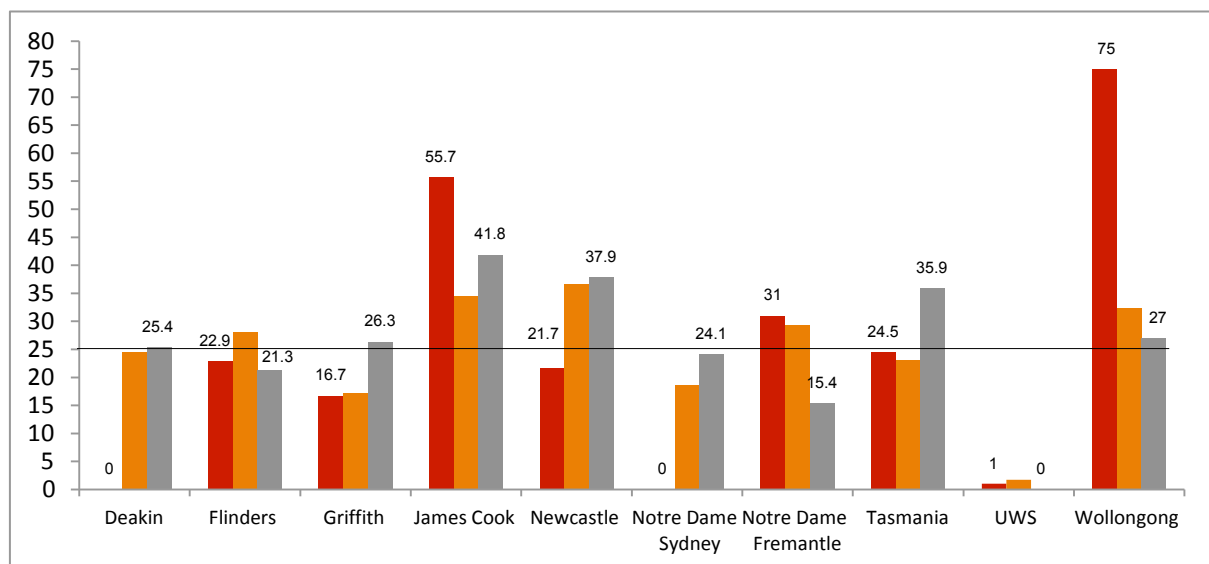
Only the University of New South Wales (UNSW), Monash University and the University of Western Australia (Postgraduate entry) were successful in exceeding the 25% enrolment target with increasing levels of rural students in 2010. Except for UNSW and Monash (and possibly the University of Melbourne), the Go8 universities have shown a pattern of declining rural enrolments between 2007 and 2010.

Chart D – Proportion of Rural Origin Students enrolled in GO8 Universities (2007-2010)



Of the 'other' universities (these could be characterised as predominantly newer universities with relatively younger medical programs), the majority of these institutions met, or came close to meeting, the rural enrolment targets. Of the ten programs offered by the 'other universities', six programs exceeded the target, and one program was within one percent of the target (70% of providers).

Chart E – Proportion of Rural Origin Students enrolled in non-Go8 Universities (2007-2010)



So, what factors might influence the performance of different universities?

The data would suggest that a major factor in the performance of medical schools is proximity to rural populations.

The most successful universities in recruiting rural origin medical students are James Cook University (41.8%), University of Tasmania (35.9%), University of Newcastle (37.9%), Monash University PG (32.9%), UNSW (29.3%) and the University of Wollongong (27%). James Cook University and the University of Tasmania are the only Australian medical programs located in areas classified broadly as rural (although the University of Tasmania is located in Hobart, it is classified as an Inner Regional centre because of its distance from the Australian mainland). The universities of Newcastle and Wollongong are located in major cities, however, they are proximate to large rural populations in the Hunter and Illawarra respectively and therefore are more accessible (geographically, culturally and financially) for rural and remote students. UNSW and Monash University have significant physical operations in rural areas relative to other providers.

The least successful universities are the University of Western Sydney, University of Queensland, University of Adelaide and University of Sydney – all located in major capital cities.

While proximity to rural populations appears to have an impact on the performance of medical schools, this is not a complete explanation. For example, the University of Wollongong (while located in a major city, it is proximate to large populations of inner regional students) has seen a significant decline in the number of rural origin students from 75% in 2007 to 27% of enrolments in 2010. At the same time, the number of rural enrolments at the University of Newcastle (also in a major city and proximate to large populations of inner regional students) has seen a steady rise in rural enrolments from around 21% to 38% over the same period (paralleling the introduction by Newcastle of a rural pathway from the University of New England).

It is unlikely that the academic performance of rural cohorts would vary to such an extent from year to year that the decline in enrolments at some medical schools could be attributed to the academic performance of rural students. It is more likely that changes in rural enrolments are influenced by strategic choices made by different medical schools about the appropriate balance of rural origin students in their profile. This suggests that, in addition to proximity, the strategic commitment of universities to rural participation in medical and health education is highly influential in resultant performance. This might indicate that to be successful in recruiting rural students there needs to be an alignment between the strategic goals and direction of the medical school, and rural health workforce priorities. This might also suggest why medical schools based in rural areas are significantly more successful in recruiting rural students than universities located outside rural areas.

There also appears to be little apparent difference in performance based on whether a university is funded to operate a rural clinical school. The majority of medical schools have rural clinical school, yet achieve vastly different results in recruitment of rural students into their largely metropolitan based medical programs. As such, receiving government funding to operate a rural clinical school does not appear to contribute to enhanced performance outcomes.

Regardless of the reasons for differential performance among medical schools, the data show clear differences in the performance of medical schools in increasing rural student enrolment in medical education. To the extent that rural programs are intended to increase the number of Australian trained medical graduates in rural practice, and the impact of chronic shortages in the

health and well-being of rural communities, it is not unreasonable for rural communities to expect that the Government would direct resources to programs that can demonstrate a capacity to meet and exceed minimum targets in both recruitment and retention. At the very least, medical schools should be subject to the same public accountability standards as other programs given the amount of public money invested in these programs.

(b) exposing metropolitan origin students to rural practice and lifestyles to encourage them to consider rural practice as a career option.

Although rural background is the strongest predictor of subsequent rural practice, the majority of medical students are traditionally drawn from metropolitan areas (currently more than 80% of all medical students if both Australian and International Fee Paying students are considered).

Equally, a proportion of rural medical students will take up employment in metropolitan areas or overseas. Accordingly, the rural health workforce will continue to rely on a proportion of medical graduates from metropolitan areas taking up practice in rural areas, as metropolitan areas rely on rural graduates to meet workforce needs.

To encourage more metropolitan students to consider rural practice, the Federal Government has funded predominantly metropolitan universities for more than a decade to operate rural exposure programs (called rural clinical schools). While these schools have broader roles (eg. to conduct research, and provide a resource for local practitioners), their primary purpose is to increase the number of metropolitan medical graduates entering rural practice. The Government now requires that all medical students to have a period of exposure to rural practice.

While this is an important strategy, there is little evidence that current approaches to rural exposure or rural placement has had a significant impact on the number of Australian medical graduates entering rural practice – at least to the extent that it will replace retiring practitioners with Australian medical graduates and address the long term mal-distribution of doctors.

A number of studies undertaken by the rural clinical schools themselves have found that rural exposure positively influences general perceptions of rural life and practice. They have argued that this provides an evidence base for the proposition that rural exposure could lead to more metropolitan medical graduates choosing rural practice. However, other studies have raised concerns about these conclusions, identifying inconsistencies in the evidence supporting rural exposure as a precursor to rural practice.

One paper evaluated a range of these types of studies, reporting that “...the specific role of ‘rural exposure’ in increasing uptake of rural practice is not conclusive, largely due to confounding variables not being considered.”¹⁹

A criticism of some of the research has been the failure to adjust findings for “independent predictors of career preference”.²⁰ In particular, some studies have failed to

¹⁹ Ranmuthugala, G, Humphreys, J, Solarsh B, Walters, L, Worley, P, Wakerman, J and Dunbar, J, Solarsh, G (2006) Where is the evidence that rural exposure increases uptake of rural medical practice? Australian Journal of Rural Health, Volume 15 Issue 5, 285–288, p.286.

separate responses of students from metropolitan and rural origin. As rural students are inherently more likely to practice in rural areas, the inclusion of these responses makes it impossible to determine whether rural exposure has had any impact on the practice intentions of metropolitan students.

This point was reiterated in a recent review for the Federal Government of rural exposure programs. While the review was generally positive about the rural clinical schools program in terms of their broader objectives, it expressed uncertainty about the evidence regarding rural exposure and its impact on increasing the number of metropolitan graduates in rural practice. It concluded that there is:

“... no definitive answers to whether [rural clinical schools] in Australia have (or have not) yielded higher rates of rural practice among participating students. However, there is evidence of positive attitudinal shifts towards rural training and practice. Some studies have suggested that an increasing number of students are seeking rural internships, although these figures should be approached with caution as it is not clear to what extent this will translate into career decisions. Health Workforce Queensland reports that only 4.29% of former medical students from the two Queensland universities are working in RRMA 4-7”.²¹

It also noted:

“One of the challenges of this evaluation is that even where the intended outcomes are achieved (i.e. the student goes on to work rurally), there is no way of knowing the counterfactual – i.e. whether they would have chosen to work rurally if they had not taken part in the [rural clinical school] Program”.²²

Rural Health Workforce Australia has also noted:

“Unfortunately much of the evidence of the relationship between time spent at an [rural clinical school] and subsequent rural practice has tended to be both future-oriented (ie where students say they will practise after qualifying) and very small scale.

We do not currently know, for example, how many students who have passed through the Rural Clinical Schools since their establishment in 2001 have gone on to become rural GPs nor indeed how many have done so as a consequence of one of the many scholarships available. This is an important lacuna in our knowledge because considerable amounts of public money are spent on various programs and incentives designed to attract medical students to rural careers.”²³

²⁰ Ibid.

²¹ Urbis. (2008). Evaluation of the University Departments of Rural Health Program and the Rural Clinical Schools Program. Department of Health and Ageing. Canberra p. 66. Downloaded from <http://www.google.com.au/url?sa=t&rct=j&q=evaluation%20of%20the%20university%20departments%20of%20rural%20health%20program%20and%20the%20rural%20clinical%20schools%20program&source=web&cd=1&ved=0CB8QFjAA&url=http%3A%2F%2Fwww.health.gov.au%2Finternet%2Fmain%2Fpublishing.nsf%2FContent%2FF113F29BD0A03FB8CA2575DE00227803%2F%24File%2Fudrheval.pdf&ei=9lPUTp-8CqSViAfR5LD2Dg&usq=AFQjCNHYEPe48vMrJVOfSvTvB2zjJ96lJA>.

²² Ibid, p 70.

²³ Rural Health Workforce Australia (2008b). Will More Medical Places Result in More Rural GPs?. Melbourne. p.9. Downloaded from http://www.rhwa.org.au/client_images/762459.pdf.

A second argument proffered for the success of rural exposure is the increasing level of demand for access to rural placements among Australian medical students. Once again, it is unclear whether this increase in demand is coming from metropolitan students. Even if there was evidence of an increase in demand from metropolitan students, this does not prove that there has been an increase in interest in rural practice.

As has been noted by the Deans of Medicine there are no longer sufficient medical training places in major metropolitan hospitals and health services to accommodate existing Australian medical student numbers and internship rotations. This has paralleled the expanded use of regional based hospital and health services in medical training. As growth in demand for rural placements appears to have paralleled an over subscription to the supply of metropolitan placement opportunities, it is difficult to conclude that increased demand is a reflection of a genuine increase in interest in rural practice. Even if there is a genuine growth in demand for rural placements, this does not provide an evidence base that students who undertake rural placements (even those whose perceptions may be positively influenced) will actually relocate to rural practice after graduation (as indicated above).

There is also evidence that there has been a significant increases in the level of interest in rural placements among international full fee paying students. For example, Rural Health Workforce Australia (RHWA) has found that while “... Australian medical graduates (AMGs) studying to become GPs in 2008 have declined as a proportion of acceptances relative to 2007 (down from 447 to 411), ... they have increased their representation in relation to the rural pathway. However, this increase is somewhat misleading as it needs to be borne in mind that not all Australian medical graduates are domestic graduates – the figure also includes fee-paying international students who have stayed on to complete their training.”²⁴ RHWA has found that of the “... 236 rural pathway places accepted [in 2008], 148 were taken up by doctors from overseas. Domestic medical graduates therefore represented only 38% of rural pathway acceptances, with the remainder of 62% being taken up by [overseas] doctors”.²⁵

While there is uncertainty about the effectiveness of rural exposure and rural placement, data on the actual number of Australian medical graduates entering rural practice is not encouraging.

The RHWA has argued, however, that almost all the growth in rural medical practitioner numbers has been a result of the recruitment of overseas trained doctors to rural practice, and not a result of increases in Australian medical graduates entering rural practice.²⁶

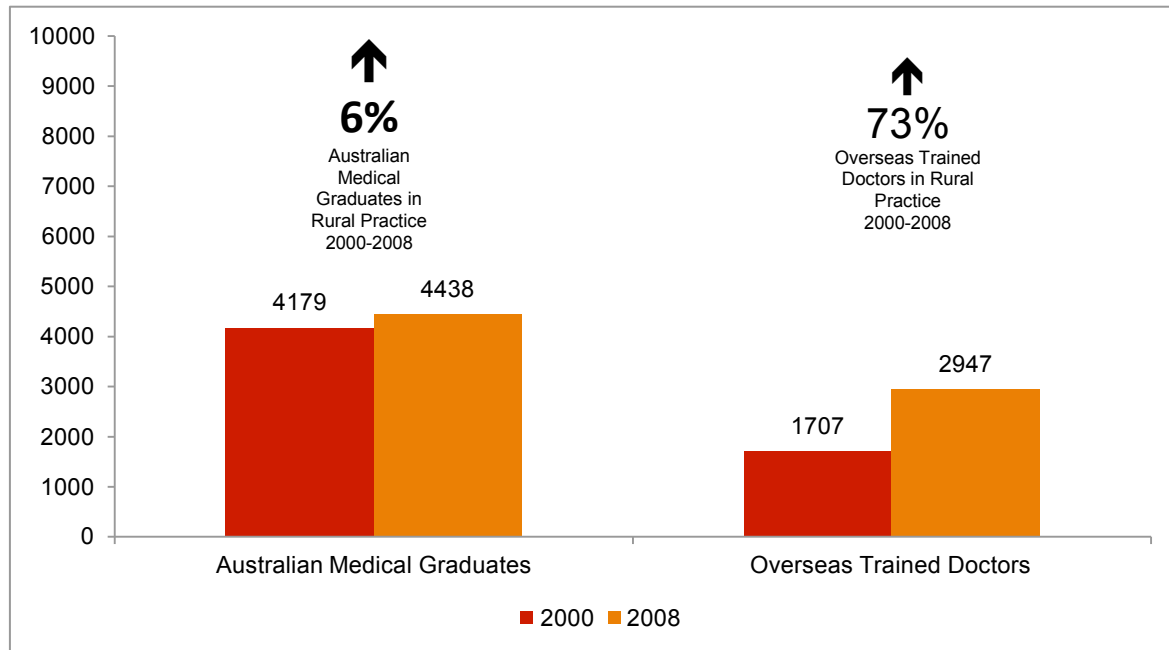
²⁴ Rural Health Workforce Australia (2008b). p 12.

²⁵ Ibid.

²⁶ Rural Health Workforce Australia (2011) p 15.

The RHWa found that between 2000 and 2008 the number of Australian medical graduates becoming GPs in rural practice grew by only 6%, compared to 73% increase in the number of overseas trained doctors in rural GP practice. This equates to a net average annual increase of 28 new Australian medical graduates practising as rural GPs over that period.²⁷

Chart F – Growth in Rural GP Workforce 2000-2008²⁸



In terms of overall growth in rural medical practitioner numbers, the RHWa has reported that from the approximately 3,000 medical graduates in 2011, only 80 in total (or 2.7% of graduates) will pursue rural medical careers as GPs or specialists.²⁹ Based on what is known about rural practitioners, it is likely that many of these graduates were originally from a rural area.

The latest data reinforces previous findings that very few metropolitan trained medical graduates are taking up rural practice after graduation, despite a decade of rural exposure and placement programs. Health Workforce Queensland reported in 2008 that only 4.29% of former medical students from the two Queensland universities are working in rural and remote areas.³⁰

The Rural Doctors Association of Australia reports that General Practice Education and Training (GPET) surveys show “... that only 13% of medical students said general practice was their first preference as a career choice and only a small fraction of this 13% are likely to end up in rural medicine”.³¹

²⁷ Ibid.

²⁸ Ibid. Adapted from Rural health Workforce Australia Chart.

²⁹ Deloitte Access Economics, Review of the Rural Medical Workforce Distribution Programs and Policies. Canberra. p. 37 citing Rural Health Workforce Australia. Downloaded from [http://www.health.gov.au/internet/main/publishing.nsf/Content/E80E195CFBCE77CBCA2578790017413B/\\$File/FOI%20235-1011%20document%201.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/E80E195CFBCE77CBCA2578790017413B/$File/FOI%20235-1011%20document%201.pdf).

³⁰ Ibid. Urbis. p. 66

³¹ Rural Doctors Association of Australia (2010), The Medical Workforce Shortage in Rural and Remote Australia: The Facts. Canberra. Downloaded from http://www.rdaa.com.au/Uploads/Documents/The%20medical%20workforce%20shortage%20in%20rural%20and%20remote%20Australia%20-%20Factsheet_20101014121221.pdf.

Evidence of the effectiveness of rural exposure and placement in the Australian context remains inconsistent and disappointing. While it has been argued that it is too early to assess the effectiveness of rural exposure and placement on the practice intentions of Australian medical graduates, the programs have been operating in some cases for a decade (a sufficient amount of time to conduct surveys of graduates). For example, James Cook University, which has been highly successful in its approach to both the recruitment of rural students, and the retention of graduates in rural internships, has been able to report on the outcomes of its rural medical strategies.

While there are no independent data on the actual number of metropolitan graduates that have entered rural practice as a result of current government programs, data on the growth of Australian medical graduates in rural practice suggest that current strategies do not have a substantial impact on actual rural practice decisions. While it is clear that some Australian medical graduates are choosing rural practice, it remains unclear whether metropolitan graduates (the focus of rural exposure and placement programs) make up a substantial portion of these new entrants. It is also unclear whether increases in demand for rural placements reflect the under-supply of medical placements in metropolitan areas, or reflect strategies by medical schools to increase the placement of international fee paying students in rural areas. Overall, rural exposure and placement would not appear to be having a substantial impact on increasing the number of Australian domestic medical practitioners in rural areas to appropriate levels.

Disappointing results from rural exposure programs has led medical schools to increase the duration of rural placements based on a view that longer periods of exposure may improve outcomes. The Government has now mandated a period of rural placement for all medical students regardless of their long term interest in rural practice. Governments are also investing in new rural training initiatives, reflecting concern about low levels of Australian medical graduates taking up rural practice and the view that graduates need better training and preparation for rural practice. These changes may yield improved results in the future, yet there is a risk that the current myriad of rural exposure and placement programs will not deliver the levels of increase in graduate numbers in rural practice that is required to offset retirements and other departures or rural doctors, or keep pace with the growth and ageing of rural populations.

The rural and regional medical workforce is ageing, with the average age of rural GPs now 49 years, and around a quarter of rural doctors aged over 55 years.³² If rural exposure does not deliver more doctors into rural practice, the population of rural practitioners will decline exponentially. This will further reduce the accessibility of health services for rural and remote populations, and reduce the number of potential clinical supervisors able to train the next generation of rural doctor creating a vicious circle of decline.

As Rural Health Workforce Australia recently commented:

“Without any effective evaluation it is impossible to say whether these schemes are working and whether this is the best way to spend public money. However, it can be said with certainty that domestic graduates have demonstrated an extreme reluctance to go bush and

³²

Ibid.

merely increasing their numbers will not necessarily change this outcome.” (Rural Health Workforce Australia (2008b), p13).

(c) Effectiveness of workforce planning

It is clear from the evidence that the array of rural recruitment and exposure programs appear to contribute more to the growth of the metropolitan medical workforce, as well as supporting growth in international full fee medical student places, than increasing the supply of Australian domestic medical graduates in rural practice.

It is also clear that attempts to manage the supply of medical students in Australia has had a disproportionately adverse impact on the accessibility of health services in rural and remote Australia. Rural Health Workforce Australia has commented:

“There is .. evidence to show that Commonwealth decisions made in the past may have had a deleterious effect upon doctors’ choice of careers”.³³

It has concluded:

“... not only has the debate around over or under-supply of doctors been circulating for many years, but that a number of the policy instruments being used by the Commonwealth today to entice undergraduates to choose rural practice have been tried and failed in the past. Thus, medical workforce shortages in rural areas have been a persistent feature of Australia’s healthcare system for a long period of time in spite of Commonwealth intervention through either the creation of additional medical school places or a cap on graduate numbers”.³⁴

The above analysis suggests that Australia needs to fundamentally re-think rural health and medical education policy and strategies. There is a growing view in rural communities that governments, as one commentator noted, are simply “adding policies to patch defects in previous policies”³⁵, rather than developing a coherent set of evidence based strategies that are specifically targeted to address workforce needs in rural and regional communities.

Charles Sturt University remains concerned about Australia’s over-reliance on programs for which there is an inadequate evidence base and which have a long lead-time to produce the evidence needed to determine their success. It has recently been suggested that current rural recruitment and exposure programs need at least 15 more years to determine if these approaches might work to increase the rural medical workforce! Yet rural communities don’t have 15 more years to find out if this program might work, particularly when there is substantial evidence for strategies that do work (“train the bush, remain in the bush”) but which are not supported by government.

³³ Rural Health Workforce Australia (2008), p 13.

³⁴ Ibid. p 4.

³⁵ Cheung, A (2011). Contemporary rural health workforce policy in Australia: Evidence-based or ease-based? Australian Medical Students Journal, Vol 1, Issue 1, pp 80-83. Downloaded from http://www.amsj.org/wp-content/uploads/files/issue/amsj_v2_i1.pdf#page=82.

National and international evidence that demonstrates that the most successful strategy for increasing the number of medical and health professional in rural practice is to train rural students in rural locations (“train the bush, remain in the bush”).

A review of the literature on predictive factors for entry to rural health practice found that a person with a rural background was around 2–2.5 times more likely to be in rural practice than their urban counterpart.³⁶

A recent report on strategies to enhance rural recruitment and retention by the World Health Organisation (WHO) similarly found:

“There is a compelling body of evidence from high-, middle- and low-income countries that a rural background increases the chance of graduates returning to practise in rural communities. Some studies have shown they continue to practise in those areas for at least 10 years. A Cochrane systematic review states: “It appears to be the single factor most strongly associated with rural practice.

Several longitudinal studies tracking the practice locations of physicians in the USA have found that students with a rural background continue to practise in rural areas for an average of 11–16 years after graduation (see Box 3). In South Africa, students from rural backgrounds are three times more likely to practise in a rural location compared with their urban counterparts”.³⁷

This is reinforced by evidence from Australia:

- A study of the first graduating cohort of students from James Cook University's (JCU) medical program (the only medical program that is delivered fully in a rural area) found that 66% of graduates intended to practice in a rural area at the commencement of their studies, and 64% ultimately took up internships in rural areas. Importantly, 98% of graduates responded that they had received their first choice intern location.³⁸
- Charles Sturt University (CSU) reports that more than 70% of its on-campus health and human students are from an Inner Regional, Outer Regional, Remote or Very Remote areas, and that more than 80% commence employment in a rural or regional area (over 90% in some disciplines).³⁹

³⁶ Laven, G and Wilkinson, D (2003) Rural Doctors and Rural Backgrounds: How Strong is the Evidence: A Systemic Review. Australian Journal of Rural Health 11, 277–284. Downloaded from <http://www.dhh.la.gov/offices/miscdocs/docs-88/Taskforce/May%20-%20relevant%20articles/rural%20docs%20and%20rural%20backgrounds.pdf>.

³⁷ World Health Organization (2010) Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations. Geneva. p. 18-19. Downloaded from http://www.rhwa.org.au/client_images/950350.pdf.

³⁸ Veitch C, Underhill A, Hays RB (2006) The career aspirations and location intentions of James Cook University's first cohort of medical students: a longitudinal study at course entry and graduation. Rural and Remote Health 6: 537. Downloaded from <http://www.rrh.org.au/articles/subviewnew.asp?ArticleID=537>.

³⁹ Charles Sturt University (2011) Regional Development Report. Bathurst. Downloaded from http://news.csu.edu.au/uploads/documents/F1672%20Regional%20development%20report_WEB.pdf.

- A recent comprehensive study by the Australian Centre for Education Research (ACER) on the characteristics of rural students found that 65.7% of rural students who had attended a regional university were in regional employment ten years after graduation.⁴⁰

Australia data supports the view that proximity to rural populations is a critical factor in rural student participation in higher education and choice of university. ACER found that more than 70% of applications to half of Australia's regional universities are from rural origin students.⁴¹

Proximity does not simply refer to the accessibility of a higher education to a rural student, but the accessibility of the student to an environment that informs and nurtures their rural identity. For example:

- the capacity to maintain connections with family, friend and peer networks;
- enhanced confidence to participate in University because of familiarity with the environment and place;
- the sense that a university that is located in a region, and which predominantly serves regional students, has a better understanding of the needs and aspirations of rural students in terms of student support, curriculum and employment focus;
- the opportunity to attend university with people who have similar backgrounds, experiences and outlooks; and
- the reduced cost of attending university locally in a rural area.

Connection to people and place is similarly important for Indigenous rural Australians. Indeed, as rural identity is one of the dominant factors that influence subsequent decisions to work in rural areas, there is a strong rationale for cultivating this identity by supporting rural students to maintain strong and meaningful connections to their communities during their studies. The current strategy of requiring rural students to move to major cities to study medicine appears to contradict established evidence.

As Rourke has observed in relation to rural medical education, successful approaches to increasing the number of rural doctors and health professionals are multi-factorial.⁴² He argues that the evidence would suggest that successful rural recruitment and retention requires among other things:

- location of medical and health programs in a rural region; and
- a high proportion of students admitted to the medical school from rural areas; and
- a comprehensive rural experiential-focused learning within a strong and well-supported rural education network.⁴³

⁴⁰ Australian Centre for Educational Research (2011) Australian regional higher education: student characteristics and experiences. Canberra p.57. Downloaded from <http://www.google.com.au/url?sa=t&rct=j&q=australian%20regional%20higher%20education%3A%20student%20characteristics%20and%20experiences%2C%20&source=web&cd=1&ved=0CCIQFjAA&url=http%3A%2F%2Fwww.deewr.gov.au%2FHigherEducation%2FDocuments%2FAusRegionHigherEd-StudentCharExp.pdf&ei=OS7UToCTGoaSiQe8puBy&usg=AFQjCNHppM8ITYQKURmkEO-8xRF1muRvOA>.

⁴¹ Ibid.

⁴² Rourke J (2010) WHO Recommendations to improve retention of rural and remote health workers - important for all countries. Rural and Remote Health 10: 1654. Downloaded from <http://www.rmh.org.au>.

⁴³ Ibid.

WHO has urged governments to use targeted admission policies to enrol students with a rural background in education programmes for various health disciplines, in order to increase the likelihood of graduates choosing to practice in rural areas, and to locate medical and health programs in rural areas to increase accessibility of programs for rural students.⁴⁴

The weight of evidence continues to support the view that training rural students in rural locations is the single most effective strategy to increase the number of medical and health practitioners in rural Australia. Yet, this is not at the heart of Australia's rural health workforce strategies.

⁴⁴

Ibid. World Health Organisation (2010).

Recommendations for the Committee

Charles Sturt University (CSU) endorses the priorities set out in the National Health Workforce Innovation and Reform Strategic Framework for Action 2011-15. As recognised in the Framework, the particular circumstances of rural and regional Australia will require the Framework to be adapted appropriately to meet the specific workforce and health needs of rural and regional communities.

It is widely recognised that the current health workforce crisis in Australia is the product of poor workforce planning, and failed attempts to regulate market supply and demand. This has had, and continues to have, a disproportionately negative impact on the health of rural communities.

CSU is of the view that current policies and approaches to rural health workforce development have not delivered sustainable increases in the supply of appropriately trained rural health professionals to the levels required. If COAG is to be successful in meet the goal of 'self-sufficiency' in the supply of the domestic health and medical workforce by 2025, it will need to initiate and drive complementary reforms in the health and medical education sector.

This will require a commitment by governments and public policy makers in future to evidence based policies for rural health workforce development, and the adoption of public performance requirements and reporting across all rural programs.

It will also require, in CSU's view, the establishment of new rurally based health education programs featuring Interprofessional Learning (IPL), designed to stimulate the development of integrated health practice in rural areas ("Team learning to prepare for team practice"). Other imperatives require a considerable expansion of the number of rural students in appropriately designed medical and health education programs based on proven strategies that significantly increase the retention of graduates in rural employment above existing levels. This is not an argument for more medical students, but rather an argument for more effective strategies to target and support students with a propensity for rural practice, and in an environment that nurtures that desire to work in rural practice.

Given the above in Charles Sturt University's view, the key priority for the Government is the establishment of a new genuinely rural medical school to expand opportunity for rural students, and substantially increase the retention of Australian rural medical graduates in rural practice.

The other priorities are:

- (a) support for the rapid uptake of interprofessional health education in rural areas, integrating medical, nursing, allied health and human services education;
- (b) correction of the serious maldistribution of rural doctors and health professionals in rural areas;
- (c) improve the transparency of decision making, accountability of providers and reliance on evidence-based recruitment and retention policies; and
- (d) continue and strengthen the NSW "Health One" program with new funding to help create model ("proof of concept") Integrated Primary Care (team based) services.

Specific policy proposals are set out below in relation to each of these areas.

New Rural Medical School

CSU has submitted a proposal to the NSW and Federal Governments to establish a new rurally based medical program to:

- address the chronic shortage of suitably trained health and medical practitioners across rural and regional Australia; and
- prepare the next generation of health professionals for the demands of integrated health practice in a technology enabled environment.

The unique features of the proposal are described below.

1. Delivering medicine as part of an interprofessional suite of health and human service programs including dentistry, oral health, pharmacy, practice nursing, physiotherapy, rehabilitation science, medical imaging, nutrition and dietetics, clinical science, social work, supported by the construction of a purpose built facility that promotes both formal and informal interactions among students in different disciplines, linked through CSU's unique multi-campus system to its other health disciplines across rural NSW.
2. The introduction of a six-year undergraduate medical program with an initial intake of 80 students of which at least 60% will be selected through a Positive Rural Recruitment Program to ensure that students have a strong commitment and predisposition to rural practice.
3. Early and sustained exposure of students to rural specific clinical scenarios within a problem based learning framework that will build confidence and retention of rural students.
4. Streaming of medical students in their fourth year to focus on providing those students committed to rural practice with procedural skills particularly suitable to rural practice.
5. Integrating specialised e-health curriculum to prepare students for future technology enabled health practice (eg. telemedicine; electronic health records).

The University has also submitted a proposal to the Health and Hospital Fund (HHF) to construct a new Integrated Health and Wellness Precinct in Bathurst, in cooperation with a number of existing medical and allied health providers. This will be a centre where students can practice their skills in a collaborative team based environment. The University will also use this Precinct to evaluate models of interprofessional clinical practice to support the National Health Workforce Innovation and Reform Strategic Framework for Action 2011-15.

CSU has recognised the importance of interprofessional education and training to meet the needs of rural communities, and has invested in a range of strategies to advance and promote this approach over many years. As the most comprehensive provider of health and human services education in rural Australia, CSU is one of only a few universities nationally with the capacity to integrate its health curriculum across a broad range of professional disciplines.

As the largest provider of online and distance education in Australia, it is also one of the only providers with the scope of health disciplines and the expertise in online delivery to promote life-long re-skilling and upskilling, and professional development, to enable the rural health workforce to adapt and change to reflect community needs. More than 40% of its online and distance students are from rural and remote areas.

Its location across multiple areas of rural Australia, and its strategic commitment to meet the needs and aspirations of rural communities, has enabled it to enrol significant numbers of rural students on-campus and online.

In this context, CSU has commenced the redesign of the curriculum of all its health disciplines to deliver a fully interprofessional health education curriculum commencing in 2013. This will be integrated across all its rural campuses. With 70% of its on-campus health and human services students from a rural background, and 80% entering rural employment after graduation, this initiative alone will advance the national health workforce agenda significantly.

The key gap in CSU's capability, and therefore its ability to prepare students appropriately for interprofessional practice, is medicine.

Support for the rapid uptake of interprofessional health education in rural areas, integrating medical, nursing, allied health and human services education;

Interprofessional Education (IPE)

For IPE to make a contribution to the future capabilities and competencies of rural medical and health practitioners, it needs to be rapidly embraced across the regional higher education sector.

A special funding program should be established by the Commonwealth and NSW governments to assist regional institutions to invest in the development of interprofessional curricula and expand medical and health programs offered in rural areas.

To maximise impact, priority should be given to initiatives that integrate health curricula across ten or more health and human service disciplines. This would encourage universities with smaller health profiles to work collaboratively with other institutions to develop a common curriculum and allow for rapid growth of health education capacity across regional universities serving different regional areas.

Interprofessional Training (IPT)

Interprofessional education will only be effective if students are given opportunities to model and practice their learning through interprofessional clinical training.

CSU is advancing this agenda through the construction of two community based interprofessional health and wellness clinics in Albury-Wodonga and Bathurst (funded by HWA), building on its highly successful community allied health clinic. These clinics will deliver a range of community services including dentistry, oral health, nutrition, speech pathology, physiotherapy, pharmacy and occupational therapy.

CSU has also applied for HHF funding to expand this facility on its Bathurst Campus to become a major inter-professional education and services hub incorporating a general medical practice and short stay hospital, including pathology and medical imaging services. This model will be evaluated to determine the most appropriate way to expand this model to other regional centres.

Interprofessional practice in rural areas requires the development of education, training and service delivery models supported by appropriate protocols and practices that reflect the needs of both providers and patients, and which deliver improved outcomes in health practice and patient care. There is also a need for research to be undertaken and disseminated to promote interprofessional practice models to other practices around Australia.

CSU is of the view that future funding rounds through HWA, HHF and GP Super Clinics should be used to promote the construction and development of interprofessional health centres, in particular collaborations between universities and private providers.

The Government should also establish a fund to support new applied research into interprofessional health practice models located in a rural area.

Correcting the serious maldistribution of rural doctors and health professionals in rural areas through a shift to evidence-based recruitment and retention policies.

The key challenge for the Australian health workforce reform is correcting the mal-distribution of rural doctors and other health professionals.

The mal-distribution occurs at two levels: (1) mal-distribution of doctors and health professionals between rural and metropolitan areas; and (2) mal-distribution of doctors and health professionals between Inner Regional, Outer Regional, Remote and Very Remote areas.

Increase and enforce minimum enrolment targets for rural students in medical programs

Research demonstrates a clear link between rural students and subsequent rural practice (see below for further exploration of the concept of 'rural origin').

COAG currently requires that at least 25% of medical students at participating medical schools are of 'rural origin'. However, it is unclear how this figure was determined, whether this target is linked to specific rural workforce goals, and what relationship it has to long term self-sufficiency in the supply of Australian medical graduates to rural practice.

Rural Health Workforce Australia argued recently that a major contributor to the low rate of Australian medical graduates entering rural practice is that rural students comprise less than 30% of medical school places.⁴⁵

Rural and remote Australians comprise around 30% of the Australian population, yet currently represent less than 20% of medical students enrolled in medical programs. As the doctor:patient ratio in rural and regional areas is around half that of major cities, it is arguable that the proportion of rural and regional students in medical programs should increase substantially above 30% to better reflect workforce needs including factors such as:

- existing shortages of practitioners;
- expected retirements and departures of rural practitioners;
- increases in demand arising from growth in rural populations;
- ageing of rural populations and the burden of chronic disease; and
- the COAG commitment to self-sufficiency in the supply of Australian trained medical and health practitioners by 2025.

Rural origin students should in our view comprise a minimum of 30% of medical student enrolments at each medical school nationally. Enrolment targets should be incorporated into Compact Agreements within individual universities, and universities funded on their performance in meeting those and other performance targets (see further below).

An independent evaluation should be undertaken by Health Workforce Australia (HWA) to determine the optimum proportion of rural students required to meet future rural health workforce needs, while ensuring an appropriate balance between rural and metropolitan needs. This should not be used as an excuse to delay urgent action to expand rural student recruitment to medical training programs in rural areas.

Focus resources on students who 'want to practice in rural Australia'.

The concept of "rural origin" needs to give way to the concept of "rural identity" with that identity examined at the time of application to medical school.

The first step in developing appropriately targeted recruitment strategies is to ensure that we are targeting the right students. There is now convincing evidence that rural students are significantly more likely to pursue a rural career than their metropolitan counterparts. Accordingly, government programs have focussed on preferential selection of 'rural origin' students into medical and other health education fields. However, it is not clear that the

⁴⁵ Ibid. Deloitte Access Economics (2011), p. 37.

existing definition of 'rural origin' is particularly useful in identifying students who have a propensity to rural practice, or that 'rural origin' itself is a determining factor.

The current definition of 'rural origin' under the Rural Undergraduate Coordination Scheme (now the Rural Clinical Training Scheme) is a student from an RRMA 3-7 area with at least five years consecutive or cumulative rural residence from commencement of primary school.

This definition is problematic from a number of reasons: (1) there is no evidence in Australia that 5 years cumulative residence in a regional area is likely to contribute to the formation of the social and professional networks, and personal attributes, necessary to influence subsequent decisions to reside and work in rural areas; (2) the use of a cumulative indicator makes the criteria more open to manipulation.

Recent Australian research suggests that more specific criteria may be needed if targeted recruitment strategies for rural medical and health education programs are to be effective. In 2010, ACER undertook an analysis of the characteristics of rural students in higher education. The Report found that 81.3% of students who attended primary school in a regional area and then went on to study at a regional higher education institution remained in a regional area for employment five years after finishing their course.⁴⁶ According to this study the strongest predictor of whether a student will practice in a rural area is if they have undertaken their primary schooling in a rural area, and attended a regional university.

A 2006 study that looked at the influence of recruitment and selection methods on the characteristics of veterinary science students at Charles Sturt University (CSU) and the University of Sydney (Sydney).

CSU has a qualitative method for selection of students based on their predisposition to rural practice, using an affirmative action approach. Sydney uses a more traditional academic selection method and pre-entry test (not dissimilar to the ATAR + GAMSAT approach used for selection of medical students).⁴⁷

Applicants for admission to veterinary science at CSU are required to complete a questionnaire about their understanding of and involvement in veterinary science and the livestock industry and submit information describing why they should be selected. These documents are reviewed by two veterinarians with backgrounds in the livestock industry (that is, people with a practical understanding of the expectations and requirements of the industry) against the following criteria:

1. High academic capability.
2. A demonstrated interest in and commitment to rural Australia, veterinary science and animal production.
3. An understanding of the unique ethical and practical issues that confront veterinarians concerned with rural practices and animal production.

⁴⁶ Ibid. Australian Centre for Educational Research (2011) p.92.

⁴⁷ T Heath, J Hyams, J Baguley, K Abbott (2006) Effect of different methods of selection on the background, attitudes and career plans of first year veterinary students. Australian Veterinary Journal Volume 84, No 6: 217-222.

4. The capacity to communicate effectively, both orally and in writing.

Rural origin students at CSU are granted a 5-point Regional Bonus. Some students are also accepted into the next stage based on outstanding personal and experiential qualities, or to account for previous educational disadvantage. Students are then ranked against the criteria to determine whether they will advance to the interview stage of the selection process.

The study showed significant and important differences in the characteristics of students selected using the different methodologies:

- almost 60% of CSU students had grown up on a farm (that is had spent 2 years or more on a farm) compared to 12% of Sydney students;
- more than 70% of CSU students completed high school in a country town or provincial city, compared to only 26% of Sydney students;
- 68% of CSU students had seen practice in a country town, but only 29% of those from Sydney;
- 84% of CSU students expressed a 'desire to live and work in a rural area' compared to only 17% of those from Sydney;
- 76% of CSU students expressed 'a desire to help farmers' compared to only 16% of Sydney students;
- 91% of CSU students indicated that the main influence on their choice of CSU was 'selection method', whereas the most important factor in choice of university for Sydney students was location and reputation;
- 89% of CSU students formed their career intent to become a veterinarian while in primary or secondary school, compared to 69% of Sydney students (31% of Sydney students decided to become a vet at, or after completing the HSC, compared to just 11% of CSU students);
- in the first year of study, 67% of CSU students expressed a desire to work in 'rural mixed practice' after graduation, compared to just 10% of Sydney students.

The first cohort of CSU's veterinary students graduated in 2010. Reinforcing the success of CSU's selection approach, as well as the rural focus of its curriculum and rural based clinical training program, 100% of graduates commenced work in rural areas.

This suggests that a student's geographic identity is formed at a very early age, and reinforced through continuous connection with a community of interest. A recent article by the CSIRO noted that several "... reports in Australia and other countries suggest that attachment to place predicts rural practice supporting the development of procedures to select rural students into medical programs in Australia. *Long-term residence* in a rural community contributes to this attachment by increasing social bonds among members of the community [our emphasis]." ⁴⁸

This suggests that periodic exposure, accumulated over many years, is unlikely to establish the necessary sense of connection and identity sufficient to be a useful proxy for rural practice intent.

⁴⁸ Fischer, K and Fraser, J (2010). Rural health career pathways: research themes in recruitment and retention. Australian Health Review 34, 292–296, p. 293

Research in the United States, based on a review of 15 studies into recruitment of rural health students, defined rural background as "... the perspective of the student after the formation of a rural identity". The study found the factors indicate rural identity include whether a student grew up in a "rural" area, can identify with a rural lifestyle, and has roots in rural area.⁴⁹

To the extent that the goal of rural selection programs is to recruit students with a propensity for rural practice, the current definition of 'rural origin' should be abandoned.

We would propose that students should be selected and appropriately resourced based on a demonstrated 'rural identity' and commitment to rural practice at the time of application for enrolment. The determination of whether a student has a demonstrated commitment to rural practice should be based on weighting a range of relevant objective indicators (eg. years of residence in a rural area, location of primary and secondary education, work or volunteering in a rural area) and qualitative indicators (eg. reasons for interest in rural practice, understanding of the challenges of rural practice, attitudes towards other health disciplines) involving questionnaires and interviews by relevant academics, professionals and community members.

Selection criteria should take account of educational background of rural students

It has been argued that one of the reasons why rural students are not well-represented in medical programs is that the educational disadvantage experienced by rural students during schooling negatively impacts on their ability to succeed in medical education, adversely affecting their chance of selection into some medical programs. However, if educational disadvantage was a significant factor in the capacity to enrol in medical education it would be expected that the proportion of rural enrolments across all medical schools would be consistently low. Yet, the proportion of rural origin students enrolled by different medical schools ranges from 1.7% to 41.8%. This suggests that success in selection is strongly influenced by other internal priorities and preferences of medical programs. While the mission of regional institutions like Charles Sturt University focuses on improving the quality of life for rural and remote communities, many metropolitan universities have different priorities and objectives.

It is widely recognised that University admission scores are often an indicator of competitive demand and institutional prestige, rather than a reflection of the competencies and skills required by students to successfully complete a medical degree. There is considerable pressure on universities to compete on entry scores to build market reputation for medical programs, particularly among elite and research intensive universities. To the extent that competitive entry scores are used as a basis for admission of rural students, those students will be disproportionately disadvantaged. Universities should be discouraged from using inappropriate entry scores as a cut-off for admission.

Improve alignment between rural health workforce and university priorities

Current health workforce policies do not appear to take account of the different strategic priorities of universities and the extent of alignment with rural health workforce objectives.

⁴⁹ Eron G. Manusov, MD; Helen Livingston, EdD; Curtis Stine, MD; Daniel Van Durme, MD (2010) Toward a Common Framework for Rural Background. *Family Medicine* 42(10):732-5, p734

The Federal Government's priority for higher education is to promote diversity in the higher education system through increased competition among providers (ie. universities should play to their strengths). At the same time, increased competition for research funding has encouraged universities to specialise, influencing academic profile and educational priorities. For example, within the medical education field it is widely recognised that some universities have a focus on specialist training to develop the next generation of clinical and medical researchers, while other universities have a strategic focus on health practitioner workforce and/or rural community health. This appears to have a significant influence on the type of students that institutions admit, curriculum focus and ultimate success in rural recruitment and retention.

A recent report by the ALTC on interprofessional health education observed that higher education reforms are "... underpinned by a framework of competition between universities. To enhance their reputation and position, universities are required to compete to attract international students and research".⁵⁰

In a more specialised and competitive higher education and research market, there needs to be increased consideration of the strategic alignment between health workforce objectives and institutional priorities. Resources should be allocated to institutions based on their strategic commitment to rural health workforce goals, and reflect the strategic capacity of the institution to deliver highly specific rural health workforce outcomes. To meet the objectives of the National Strategic Framework, this must encompass the capacity of the institution to deliver an increase in the number of graduates that enter rural practice, as well as the capacity of an institution to deliver a rurally relevant interprofessional curriculum across a broad range of health, human service and medical disciplines. The above analysis suggests that some universities struggle to meet their existing obligations in relation to the recruitment of rural students, impairing long-term workforce goals and rural health.

Institutional commitment to the growth of an appropriately trained regional health workforce should therefore be clearly documented in institutional strategies and confirmed in the institution's Compact Agreements with the Commonwealth Government. This should incorporate specific commitments and targets in relation to IPE, IPT, rural student recruitment and retention of graduates in rural labour markets. Linking institutional strategies and performance to funding will ensure a stronger focus on achievement of rural health workforce goals.

To achieve genuine reform in the health and hospital system, the Government will need to consider a more substantial re-alignment of the allocation of medical student places and medical schools, with a particular focus on the establishing new medical programs in rural areas where curriculum can be appropriately integrated with other health and human services disciplines.

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Australian Centre for Educational Research (2011) Australian regional higher education: student characteristics and experiences. Canberra p.57. Downloaded from <http://www.google.com.au/url?sa=t&rct=j&q=australian%20regional%20higher%20education%3A%20student%20characteristics%20and%20experiences%2C%20&source=web&cd=1&ved=0CCIQFjAA&url=http%3A%2F%2Fwww.deewr.gov.au%2FHigherEducation%2FDocuments%2FAusRegionHigherEd-StudentCharExp.pdf&ei=OS7UToCTGoaSiQe8puBy&usq=AFQjCNHppM8ITYQKURmkE0-8xRF1muRvOA>.

Rural Student Attrition, Progress and Completion

While the Medical Training Review Panel reports on the total number of rural origin students commencing medical education, the number of rural origin students that successfully complete medical education and the performance of individual universities in supporting these students is unclear.

Rural recruitment targets are only meaningful if rural students successfully complete programs of study. It would assist analysis of the effectiveness of different approaches if data on attrition, progress and completions was publicly available.

It is proposed that data from medical schools is collated by an independent authority with respect to enrolment, attrition, progress and completion of medical students, differentiating rural origin, metropolitan origin and international cohorts.

Abandon requirement for all medical students to undertake a rural rotation

The Government recently introduced a requirement that all medical students undertake a rural rotation. As outlined above, there is no evidence base to suggest that exposure of medical students to rural practice (particularly for students that have no stated interest in rural practice) has any discernible impact on rural practice intentions of Australian medical graduates from metropolitan areas. This approach wastes scarce resources on students that have no intention of practising in rural Australia, while limiting opportunities for rural students that have a strong predisposition for rural practice. It is recommended that this policy is abandoned and rural students, and students with a demonstrated commitment to rural practice, are given priority access to rural placements.

Give priority to medical training and internships for rural students in rural hospitals and health services

Rural students are significantly more likely to practice in rural areas after graduation. Accordingly, first priority should be given by the NSW Government to rural medical students in access to medical training places in rural hospitals and health services. Priority would then be given in order to: metropolitan medical students who have demonstrated a strong predisposition to practice in a rural area, and international full fee paying medical students who have demonstrated a strong predisposition to practice in a rural area.

Early exposure of medical students to clinical procedures (Practice Based Learning)

Currently the majority of medical students, whether of metropolitan or rural origins study in long established programs that continue to provide a curriculum based on the needs of metropolitan based patients. The knowledge and skills necessary to practice successfully in a rural or remote community are quite different. Confidence to pursue a rural based career is markedly increased, as is job satisfaction, if a practitioner has an in-depth understanding of the problems faced by Indigenous Australians and rural communities. Given the shortage of specialist care available, competence in providing many basic procedures is critical. This requires a return to the era when a country GP was competent to give an anaesthetic, deliver a baby, take out an inflamed appendix and set a simple fracture etc. CSU strongly supports the development of a uniquely rural curriculum and introducing rural required skills early in the medical education and training process.

The first few years of a traditional medical program exposes students to basic science and theory, followed by clinical practice in health and hospital settings. Shorter health programs, such as nursing and allied health, do not have this flexibility within the curriculum and so expose the students to clinical training much earlier. CSU's new IPE strategy for its health programs will take advantage of the expertise or training requirements of other disciplines to expose medical students to clinical scenarios very early in their studies. Coupled with CSU's highly successful Problem Based Learning (PBL) programs (eg. veterinary science, clinical science), this IPE approach will help retain rural students, bring relevance to their early years, expose the students of various health disciplines to each other's profession, and produce better graduates.

Universities should be encouraged to integrate clinical practice earlier into rural medical and health programs.

Increase clinical training hours

The trend towards postgraduate entry in medical and health sciences in particular has had a significant impact on the amount of time students are able to engage in clinical training and practice specific to their discipline prior to graduation. In some disciplines, this has resulted in practitioners having to undertake increased supervision of new graduates in the workplace. In a rural context, this increases the risk of adverse impacts on the capacity of rural practices to see patients in areas with chronic shortages.

CSU is committed to undergraduate entry for medical and health education, and has extended the length of some degrees (eg. Medical Radiation Science and Medical Imaging programs) to ensure students are practice-ready. This is particularly important in rural areas where poorly prepared graduates will require long term supervision before they can provide competent patient care. Moreover, the larger curriculum allows specific training in rural issues and practices, thereby producing a graduate more likely to commence their career in regional areas. CSU's six-year undergraduate Veterinary Science program is an excellent example of this model. For all these reasons, CSU's proposed medical program will be a six-year undergraduate program. CSU is of the view that appropriate minimum levels of clinical training should be specified for health and medical programs (although the definition of appropriate clinical training needs to expand to include clinical simulation and exposure to a greater diversity of health settings, eg. community and aged care facilities).

An increase in clinical hours must be balanced against the implications for all students, particularly rural students. Clinical training is more problematic for rural students than metropolitan students, because of the cost of travel and living away from base and part-time jobs, etc. This is not adequately recognised in existing funding schemes to support rural students on placement in rural areas. In many cases, rural students (who are significantly more likely to practice in a rural area) have to travel longer distances to access rural placements than metropolitan students (for example, a student from Albury undertaking a placement in Bourke is required to travel a greater distance than a student from Sydney undertaking a placement in Mittagong). CSU has dealt with these challenges on a broad scale for more than 20 years, and has developed some excellent accommodation and support models to minimise the disruption

and maximise the learning opportunities for students on placements. However, further attention is required to systems to support rural placements for rural students.

Increase pathways from schools, T-VET, Vocational Education and Higher Education

Rural students are generally less well prepared for higher education than their metropolitan counterparts, and are significantly more likely to enter vocational education after school. This reflects a range of factors, in particular the cost of relocating to attend university and the importance of maintaining connections with community. The TAFE network is more geographically distributed in rural areas than the university sector, making tertiary education in smaller rural and remote communities more accessible through this mechanism. This has also contributed to TAFE developing a specialist capacity in supporting student transition from school to tertiary education, and through collaboration with universities to higher education.

CSU has one of the most extensive collaborations with the VET sector in Australia, with 32% of its students having had a TAFE experience. This has placed CSU in an ideal position to work with the VET sector over the past 20 years to develop programs that are far more sophisticated than the usual articulation or credit package attempted by most other universities. For example, CSU has T-VET pathways from schools in nursing and allied health (in the Central West and the Riverina); it has integrated programs with TAFEs where students are co-enrolled; it has reverse articulation programs (eg. Enrolled Nurse programs at TAFE for CSU Bachelor of Nursing students, so they can work as they study); and dedicated transition pathways from school-TAFE to CSU.

Increasing rural student participation in health education, and enhancing retention of graduates in the rural health workforce, will require an increased focus on integrated approaches to education from school to University.

This is also critical to enabling the rural health workforce to adapt to the changing needs of the community, patients and workers over time. In order to retain workforce, and meet changing expectations, health workers will need to re-skill and up-skill throughout their career. The rural health education system needs to be layered to provide multiple entry point to qualifications, and multiple exit points to careers. This will allow rural students to enter and exit tertiary education through their life.

CSU has designed a highly successful model of life-long learning in collaboration with its partners in schools and TAFE. The table below sets out a set of examples of this model.

For example, a student may commence tertiary education in nursing at school through a T-VET program (CSU operates a T-VET nursing program in central western and south western rural NSW). The student could then progress towards a Diploma in Nursing, exiting with a vocational qualification or continuing to an undergraduate qualification with full credit. Subject to satisfactory performance, the student could then exit as a Registered Nurse or progress to a specialised discipline within nursing such as paramedics. During their career, the student could then undertake an advanced degree via online and distance learning while in the workplace to re-skill into a different part of the health workforce, or up-skill to a Nurse Practitioner qualification, carrying credit through the education life-cycle.

Another example is in dental services. CSU will launch a new pathway in dental science in Victoria in 2012. Under this model, students could commence in a Diploma in Dental Technology and exit as a dental technician or progress to a Bachelor of Oral Health subject to satisfactory performance. If they satisfactorily complete the Bachelor of Oral Health the student could exit as an Oral Health Therapist, or if they perform well progress to a Bachelor of Dental Science.

School	TAFE	University UG – Entry Point	University UG - specialised	University PG
TVET – Nursing	Diploma of Nursing	Bachelor of Nursing	Bachelor of Clinical Practice (Paramedic)	Master of Nursing (Nurse Practitioner)
Example: Career Exit Point	Enrolled Nurse	Registered Nurse	Paramedic	Nurse Practitioner
TVET – Allied Health*	Diploma of Allied Health *	Bachelor of Health and Rehabilitation Science	Bachelor of Physiotherapy	Master of Health Services Management
Example: Career Exit Point	Allied Health Assistant*	Rural Community Health Worker	Physiotherapist	Health Administration
-	Diploma of Dental Technology	Bachelor of Oral Health	Bachelor of Dental Science	Graduate Diploma in Dental Implantology
Example: Career Exit Point	Dental Technician	Oral Health Therapist	Dentist	Dentist

* the development of a Diploma of Allied Health is under discussion between CSU and TAFE.

CSU also offers continuing professional development to rural practitioners in specific disciplines, such as rural pharmacy, using its extensive IVT and rural campus facilities.

This is an important component of any strategy to improve equity and access to under-represented groups at university, such as rural and Indigenous students, so is important in any planning of our future rural health workforce.

Structured life-long learning will be critical to the long term sustainability of the rural health workforce. Further support is required for the creation of integrated pathways.

Establishment of Regional Clinical Simulation Centres

CSU uses simulation to complement the clinical training of its students and for the maintenance of competencies of clinical staff. It also uses these resources and expertise to support the continuing professional development of health professionals in rural hospitals, health authorities and private practice. Coupled with its extensive IVT facilities and expertise, CSU provides continuing professional development (CPD) to rural and remote pharmacists in weekend workshops. By combining the IVT access with the use of simulation (such as a virtual dispensary) students and graduates can develop their knowledge and experience in specific scenarios that may be rarely experienced in a typical clinical placement. CSU's Regional Interprofessional Clinical Simulation Centre in Bathurst has been built to expand opportunities to teach health students and professionals using simulated hospital, community and emergency scenarios.

Through the continued development of simulation in clinical training and re-training, CSU is expecting the various health accreditation authorities to begin to allow increased use of simulated clinical training. CSU believes that simulation is a valuable method of learning and teaching, providing safe, repeatable practice, particularly in the early stages of training, that will allow clinical skills to be honed in specific ways. Whilst simulation will not replace medical and clinical training, it is reasonable to predict that high-end simulation will be used as part of medical and clinical training in the future. This will not only produce better graduates and confident health professionals, it will also partially reduce the pressure on training places in clinical settings.

All major clinical simulation facilities are currently located in major cities. The construction of a major non-metropolitan clinical simulation hubs to complement existing city based facilities, would improve access to facilities for rural students, as well as existing rural health practitioners. If constructed as part of a wider system of clinical simulation facilities, it would promote opportunities for engagement between rural and metropolitan students and practitioners.

Increase medical student exposure to Outer Regional and Remote practice

The bulk of rural placements occur in large provincial towns like Wagga Wagga and Lismore. These towns generally have a more diverse health workforce and comparable lifestyle to most suburban centres of Australia. Students are unlikely to develop a realistic understanding of rural practice through these experiences, or develop an enthusiasm for practice in small rural and remote centres where workforce needs are more acute.

In CSU's view, more work needs to be done to create rural placement opportunities in smaller rural and remote centres. This will require greater involvement of sole practitioners in smaller centres, and will have a larger impact on their practices and patients.

The Government should provide enhanced support to practitioners in small rural and remote centres to participate in medical training of students to enable appropriate supervision and to create a positive experience for students which will in turn contribute to the likelihood of those students returning to similar practices on graduation.

Greater involvement of private providers in medical training

Private hospitals do not participate in the provision of medical training and internships to the same extent as public hospitals. The Government needs to explore innovative models to encourage greater participation of private providers.

CSU has recently negotiated an agreement with a private hospital and general practice to locate to facilities on its Bathurst campus. This is subject of an HHF funding application. If successful, this innovative arrangement will create a major interprofessional practice precinct integrating primary and family health care (medical, nursing and allied health) and hospital care generating a significant expansion in medical and clinical training places for students. The Government should look to providing specific funding to promote innovative models for engaging private providers in medical and clinical training.

Cap International Full Fee Paying Medical Student Places

Domestic medical student places for Australian students are capped by the Federal Government. However, international full fee paying places are not capped and universities can enrol as many students as they deem appropriate.

The Medical Training Review Panel reported that in 2011 commencing international full fee paying students numbers were projected to increase from 529 in 2010 to 624 in 2011 (an increase of 95 commencing international medical students or 18%).⁵¹ This is at the same time as the Deans of Medical Schools and the Australian Medical Association had called on the Government to cap domestic medical student places because of a lack of medical training places. This raises concerns that domestic places are being restricted in order to expand international full fee paying medical places at Australian universities.

Domestic medical student places are capped by the government because of the need to ensure adequate supply of prevocational and vocational medical training places. Consequently any growth in international full fee paying places will, by increasing the demand for these prevocational and vocational medical training places, have the capacity to reduce expansion of domestic medical student places for Australian resident students.

While CSU strongly supports the internationalisation of Australia's higher education system, CSU is also of the view that this should not be at the expense of opportunities for domestic students (in particular rural students) and our capacity to meet regional health workforce priorities. If domestic student numbers are capped to ensure the capacity to supply appropriate medical training, then we are of the view that the government should also cap international full fee paying medical student places to realistic levels so that we are able to meet domestic demand for medical training.

Improving transparency of decision making, accountability of providers and reliance on evidence-based recruitment and retention policies.

Improve transparency and accountability for public funds

While AIHW publishes consistent and standardised reports on the medical and health workforce, there is no comparable independent data set for medical and health education.

This has contributed to an over-reliance on self-reporting and internal surveying to inform public policy, rather than rigorous and independent analysis. Independent cohort tracking of medical and health students through the system is required to determine the pathway of rural, metropolitan and overseas students from home location to practice location, including rates of attrition, progression, completion and retention, would significantly improve planning capacity for government and institutions.

While major medical schools initiated a student cohort tracking project a number of years ago, the data collected by this project is not publicly available for analysis and evaluation.

⁵¹ Medical Training Review Panel (2011) Annual Report 2010. Canberra p. 28-29 downloaded from <http://www.health.gov.au/internet/main/publishing.nsf/Content/work-pubs-mtrp-14>.

In CSU's view, it is critical for the rural health strategy to set out clear and measureable goals quantifying enrolment, progress, completion and retention targets for the rural health workforce. It would be appropriate for all data collection and reporting to be undertaken by a single independent authority to ensure consistency and accountability. In CSU's view, HWA should be commissioned to become the sole authoritative source of standardised reporting on performance against published targets. This will allow independent monitoring of the performance of the system, and individual providers within the system, and improve performance against rural health workforce objectives.

There is also no public reporting by Government on per capita spending on individual rural programs, or levels of funding to different suppliers, to allow for an evaluation of the relative return on investment in terms of impact on the rural workforce. Reporting on funding performance should be included in standardised annual reports within the rural health workforce strategy.

There is also concern about the use of different data standards (for example, the use of different definitions or 'rural and regional' across government; or the use effective full time equivalent practitioners in some reports, and headcount in others). This makes it difficult to discern trends and performance of different programs. It also contributes to community uncertainty about program effectiveness.

Reporting through a single independent authority will ensure use of consistent data standards and allow for improved monitoring of trends.

Performance Based Funding of Rural Programs

As noted above, the Medical Training Review Panel reports annually on the performance of medical schools in meeting the rural enrolment target of 25% of medical students.

If rural recruitment is to be given appropriate priority, it is proposed:

- COAG adopt mandatory recruitment targets for all medical schools (as indicated above);
- introduce a staged performance funding mechanism to encourage providers to meet rural enrolment, completion and retention targets;
- where a provider fails to meet mandatory targets over a two-year period, medical student places should be re-allocated to other institutions.

If Australia is to meet workforce goals for rural areas, a staged performance funding model is needed incorporating incentives for medical schools to achieve minimum requirements at various stages of the education and workforce cycle for example: meet minimum rural origin enrolment target; exceed rural origin attrition, progress and completion rates; meet minimum target for medical graduates commencing internships in rural areas; and, meet minimum requirement in relation to retention of medical graduates in rural practice after 5 and 10 years (this should differentiate students and practitioners subject to Moratorium and bonded students).

Independent evaluation of health workforce initiatives

There has never been an independent evaluation of the relative effectiveness of different approaches to rural health workforce development in Australia. There are numerous examples in Australia of highly successful rural health workforce programs (such as James Cook University's rural medical program; The University of Newcastle's alternative entry program for rural and lower socioeconomic students; UNSW's rural recruitment program; Charles Sturt University's rural recruitment and retention strategies) but to date these have not been evaluated alongside other measures to bolster the rural medical and health workforce.

This is a critical gap in our understanding of the relative performance of programs directed at growing the rural health workforce, and the effectiveness of training in preparing graduates for rural practice. HWA should be asked by COAG to undertake an independent evaluation of the various approaches in Australia and report on the approaches that generate the largest number of health graduates in rural practice and long term models for reform.

Comment on Medicare Locals

Charles Sturt University supports the aims of Medicare Locals, but has concerns about their organisation and distribution. The name and description of many of the goals suggest a service intimacy within a relatively small community. However, the capacity to help doctors and other health professionals with the management of individual patients will be seriously challenged by the non "local" nature of the entities being created. They are to be responsible for services to large populations within a large geographic area covering many cities and towns. One Medicare Local is being created by fusion of the Central West Division of General Practice and Dubbo Plains Division of General Practice with an operating area that covers a significant portion of inland NSW. The amalgamating divisions are already challenged by the size of their geographic footprint.

While "patient focused service" is at the philosophical heart of the initiative, there is no structural link between the Medicare Locals and the Local Hospital Network. While informal links are being encouraged even this remains a difficult challenge as Medicare Locals and Local Hospital Networks are not serving identical populations.

The available rural health workforce is not used optimally. There is little integration in a patient focussed way of the services provided by doctors, dentists, nurses and allied health professionals. Such services tend to work in professional silos. Patients must be referred from one "silo" to another. Evidence based solutions to this problem would suggest the creation of a model of care featuring "Integrated Primary Care" (IPC). The most successful models trying to achieve similar goals to that of Medicare Locals feature the actual delivery of integrated services in a "Hub and Spoke" model. A central hub in a larger regional centre offers IPC but has links to practices in numerous small towns supplying them with business, IT and clinical advice and assistance with their role as teaching practices. It is crucial that small country practices are strengthened in this way to relieve feelings of isolation and frustration at the lack of professional resources to help them with reporting requirements and many other difficulties.

In our views, while a useful initiative, Medicare Locals will be too large to achieve outcomes through a centrally delivered model. As such, they will need to develop models to support medical and health service provision through numerous geographically manageable integration projects in their subdivisions.

Conclusion

It is often commented today that Australia has a two speed economy. While this will pass with the resolution of the global financial crisis, a greater tragedy is that Australia has slowly become a two speed society.

Differential rates of mortality and morbidity in Australia remain a central feature of the inequality experienced by rural communities in Australia over the last 50 years. As noted by the former Minister for Health, The Honourable Nicola Roxon, MP, in her Light on the Hill address in 2008:

“We know that health is a major indicator of inequity. If you want to judge how affluent a suburb is, you could check its tax returns – or you could look at its medical records. Rates of diabetes, of heart disease, early deaths, infant mortality, how many teeth a person has left – all are clear markers of socio-economic status. We like to think that we left class back in the twentieth century, but inequality continues to stare us in the face”.⁵²

Resolving the mal-distribution of health and medical professionals in Australia is critical to addressing the ‘two speed’ society. This will only be achieved when ‘rural health workforce’ policy is designed around the needs of rural communities.

If a real solution cannot be found, governments face the prospect of expanding hospital costs in rural areas to address entrenched chronic disease and preventable illness, while our major cities are swamped with thousands of new Australian and international medical graduates that will significantly expand consumption of health services and the cost of metropolitan health care for State and Federal budgets.

Charles Sturt University would welcome the opportunity to address the Committee directly on these issues and provide any further advice or information that may be of assistance to resolving the rural health and medical workforce crisis.

⁵²

Roxon, N (20 September 2008). The Light on the Hill - History Repeating. Bathurst. Downloaded from [http://www.health.gov.au/internet/ministers/publishing.nsf/Content/3406E544FE2B41E0CA2574CC0004B185/\\$File/nrsp200908.pdf](http://www.health.gov.au/internet/ministers/publishing.nsf/Content/3406E544FE2B41E0CA2574CC0004B185/$File/nrsp200908.pdf).