SUBMISSION TO PRODUCTIVITY COMMISSION'S HEALTH WORKFORCE STUDY

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AUSTRALIAN DENTAL ASSOCATION

The Australian Dental Association Inc. (ADA) represents approximately 9,500 registered dental practitioners in Australia, which is over 90% of all dental practitioners in this country. The primary objective of the ADA is to encourage the improvement of the health of the public and to promote the art and science of dentistry.

In recent years, the ADA has responded to a number of Productivity Commission inquires and studies. These include:

- Review of Mutual Recognition – March 2003.
- Review of National Competition Policy Arrangements – June 2004.
- Economic Implications of an Ageing Australia – August 2004.
- Review of National Competition Policy Reforms – December 2004.

EXECUTIVE SUMMARY

The shortage and maldistribution of the dental workforce impacts negatively on the ability of people to access care. Waiting times for dental care are extensive in many parts of Australia, particularly in rural, regional and remote areas and for public sector dental care. The Australian Dental Association estimates there are over 600,000 people on public dental waiting lists throughout Australia, with waiting times for such care extending beyond three years in some areas.

There are a number of similarities between the broader Australian health workforce and the dental workforce. Like the broader health workforce, the Australian dental workforce is characterised by shortages in the number of practitioners, a maldistribution in supply, long waiting lists for public treatment, and a lack of coordination and central planning.

Similarly, discussions regarding the best way to address broader health workforce shortages apply equally to the dental sector with a range of strategies implemented/trialled/considered in recent years. These include:

- Increasing the supply of dentists by increasing the number of resident dental students;
- Recruitment of overseas trained dentists;
- Expanding or modifying services provided by allied dental personnel; and
- Incentives for dentists to work in the public sector and/or regional, rural and remote areas.

The provision of dental care and the coordination of the future needs of the dental workforce are hindered by the lack of integration between dentistry and the broader health workforce and by the absence of central planning by the Commonwealth Government. Recent changes to Australia's higher education system and the difficulties dental schools face in recruiting and maintaining dental academics add to these problems.

Recommendations

The Australian Dental Association makes the following recommendations to the Productivity Commission's Health Workforce Study:

1. That the Commonwealth Government establishes an Oral Health Unit in the Department of Health and Ageing.

2. That the Commonwealth Government plays a leadership role to ensure consistent planning across all states and territories with respect to dental workforce planning and development. This view is expressed in *Healthy Mouths Healthy Lives: Australia's National Oral Health Plan 2004-2013*.

3. That the Commonwealth Government creates further scholarships for students from rural and remote parts of Australia as one measure to address the maldistribution of dentists. Research suggests that students from rural, regional and remote areas are more likely to work in these areas following their graduation.[1, 2]

4. That the Commonwealth Government create a moratorium or debt forgiveness on fee indebtedness for all dental graduates who in turn agree to provide their services in regional, rural and remote areas or in the public sector. The extent of the moratorium or debt forgiveness could reflect the period of time the dental graduate undertakes practice in those particular areas. The longer the period of guaranteed service in regional, rural or remote areas, the greater the moratorium or debt forgiveness.

5. That the Commonwealth Government facilitate the education and training of increased numbers of Australian dental students as they will represent the best long-term solution to workforce shortages.

6. That the recruitment of suitably trained overseas dentists, via the Australian Dental Council assessment process, be utilised as a short-term solution to the significant labour shortage that exists in Australia.

7. That the Commonwealth, States and Territories work together to improve salaries, conditions and career paths for dentists working in the public sector.

8. That Schools of Dentistry be provided with additional funding to assist with recruitment and retention of academic staff to alleviate shortages in the current academic dental workforce.

The dental health workforce is in a parlous state and the ADA believes it is imperative that the above recommendations be implemented immediately. According to Australia's National Oral Health Plan[3] the impact of workforce shortages means:

> *"… [M]any Australians access dental care, if it is available at all, only in emergencies or when advanced oral disease is present. This leaves little opportunity for preventive care and oral health promotion, and treatment tends to focus on extraction rather than restoration of teeth."*

INTRODUCTION

Challenges that face the Australian dental workforce are similar to those facing the broader Australian health workforce. Although the supply of the broader Australian health workforce is the 'headline' issue, problems of flexibility and planning are significant concerns facing health policy decision makers.[4] Challenges facing the Australian health workforce are not confined to Australia but are a global phenomenon.

The scale of challenges facing the health workforce is best summarised by the World Health Organisation[5] which argues:

> *"OECD countries may be characterized as calm before an impending storm of shortages and imbalances; Africa is experiencing a severe [human resources for health] crisis in midst of a severe health crisis; European labour flows are likely to accelerate with EU expansion, including massive restructuring in Eastern countries undergoing transitions in economy and policy; and the bulk of low and middle income countries in Asia and Latin America suffer common problems of skill imbalances and geographic mal-distribution."*

In its initial submission to the Productivity Commission's Health Workforce Study, the Australian Health Ministers' Advisory Council[6] indicated that projections show a widening gap between supply and demand for health care. The same submission also makes the point there is a maldistribution in the supply of health professionals in the private sector "with many self-employed professionals choosing to locate in inner-metropolitan areas where they deem both lifestyle and earning potential to be more attractive than outer metropolitan, rural or remote areas".

The Australian Health Workforce Advisory Committee makes the point that there are profound changes currently taking place in health workforce, arguing:

> *"The paradox is that, whilst the proposed increases in supply are some of the largest in Australia's history, Australia also has the largest health workforce it has ever had. The current workforce situation of shortage is being driven by factors other than just the level of supply; and in particular these factors are an ageing workforce … and a decline in the average hours worked. No doubt demand is a contributing factor."*

The Productivity Commission's[7] *The Health Workforce* issues paper notes that there are a number of tensions with respect to Australian health workforce including shortcomings in workforce planning and insufficient coordination between governments, planners, educators and service providers.

Submission outline

Following the Executive Summary (including recommendations) and the Introduction, this submission is broken into three parts.

1. The first part provides a brief overview of the Australian dental workforce and highlights key points concerning the oral health of the Australian population.

2. The second part examines shortages in the Australian dental workforce with a particular focus on the maldistribution in workforce supply, an analysis of shortages in the academic workforce and the likely impact of recent changes to Australia's higher education system on the future dental workforce.

3. The third and final part examines future directions for the dental workforce including workforce projections, skilled migration, and the role of allied dental personnel.

PART 1 – BACKGOUND

The Australian Dental Workforce

There have been a number of studies that have examined the dental workforce in Australia. The Productivity Commission's[8] *The Health Workforce* issues paper indicates there are nearly 26,000 dental workers in Australia.

The Australian Health Workforce Advisory Committee[9] provides a more detailed breakdown of this figure, highlighting that in 2001 there were 8,206 dentists and 17,678 allied dental personnel.

The most detailed study of the Australian dental workforce was undertaken in 2000 by Teusner and Spencer[10] for the Australian Institute of Health and Welfare.

With respect to dentists, the study highlights the following points:

- 9,613 registered dentists in Australia.
- 9,088 dentists in dental labour force.
- 8,991 dentists currently working in dentistry.
- The practising rate of dentists is 46.9 per 100,000 population.

Key features of the dentists' labour force include:

- An ageing workforce – in 1994, 43% of practising dentists were aged 40 years or under. By 2000, this figure had fallen to 36.2%. In 1994, 28.6% of practising dentists were aged 50 years and over. This figure had increased to 31.9% by 2000.
- Female practitioners comprise 22.9% of all dental practitioners.
- 82.6% of dentists work in private sector, 16.2% work in public sector and 1.2% work in other types of practice including industry.
- Of dentists working in public practice, 30.5% work in a dental hospital and 27.4% work in general dental services.

With respect to the number of dental hygienists, the study highlights:

- There are 398 practising dental hygienists in Australia.
- The dental hygienist practising rate is 2.1 per 100,000 population.
- Between 1996 and 2000 the number of practising dental hygienists rose by 74% from 227 to 398.

With respect to the number of dental therapists, the study highlights:

- There are 1,260 practising dental therapists in Australia.
- The practising rate of dental therapists is 6.6 per 100,000 population.
- In the period from 1997 to 2000, the dental therapists' labour force fell by 4.8% from 1,324 to 1,261.

With respect to the number of dental prosthetists, the study highlights:

- There are 836 practising dental prosthetists in Australia.
- The dental prosthetist practising rate is 4.4 per 100,000 population.
- Between 1998 and 2000 the number of practising dental prosthetists rose by 7% from 785 to 840.

Oral Health of the Australian Population – Brief Overview

The oral health of Australians is mixed. On the positive side, the oral health of Australian children ranks second among all OECD countries. On the negative side, the oral health of adults' ranks second worst among OECD countries.[11]

The most recent burden of disease study (1999) showed that in 1996, oral health disease for all Australians ranked 11th for years of life lost due to disability (YLD).[12] The incidence and prevalence of dental caries and periodontal diseases are particularly high although the majority of such diseases are avoidable, highlighting the need for improved access to preventative oral health care. According to the Australian Health Minister's Advisory Council:[13]

> *"Dental caries is the most prevalent health problem in Australia accounting for 19 million existing and 11 million newly decayed teeth each year. Periodontal diseases are the fifth most prevalent health*

problem among Australians. This establishes these oral diseases as silent epidemics in Australia. About 90 per cent of all tooth loss can be attributed to these two health problems, and because they are preventable and treatable, most of that tooth loss is avoidable".

The effect of such a high rate of preventable disease being left untreated has the potential to impact negatively on individual's general health. Research suggests there is a link between oral disease (such as periodontal disease) and systemic disease (such as cardiovascular disease).[14] When left untreated, oral disease can lead to increased rates of hospitalisation. The Productivity Commission's[15] *Report on Government Services 2005* highlights that in 2002-03 there were 223 hospitalisations per 100,000 people for dental conditions that were potentially preventable.

According to *Healthy Mouths Healthy Lives: Australia's National Oral Health Plan 2004 – 2013*,[16] children and adolescents, older people, low income and socially disadvantaged groups, people with special needs (such as those with disabilities), and Aboriginal and Torres Strait Islander Peoples as key groups with particular oral health needs. With respect to Aboriginal and Torres Strait Islander Peoples, the Australian Health Ministers' Advisory Council[17] reports that "some 16.3 per cent of Australia's Indigenous population is edentulous compared to 10 per cent of the non-Indigenous population". For Aboriginal and Torres Strait Islander children, the Australian Institute of Health and Welfare's (AIHW) reports:[18]

"Aboriginal and Torres Strait Islander children have more than twice the caries rates of non-Indigenous children in the deciduous dentition. Dental caries in the permanent dentition among 12-year-old Indigenous children is almost twice that of non-Indigenous children. Dental caries rates in Indigenous children seem to be increasing."

Research also shows that income (and therefore access to care) impacts on the oral health of the Australian population. As Table 1 shows, tooth loss is highest for people on low incomes and lowest for people on high incomes.

Spencer[19] argues there is a "polarisation of the burden of disease, with middle and upper income Australians experiencing better oral health than lower and disadvantaged Australians".

Table 1: Social Inequality in Tooth Loss and Self-Rated Oral Health Among Dentate Adults: Australia 2002

Household income	Tooth loss (mean)	Self rated oral health % Average, Poor, Very poor
$12,000	9.07	34.2
$12-20,000	8.67	32.8
$20-30,000	6.19	22.9
$30-40,000	4.86	24.1
$40-50,000	3.80	20.1
$50-60,000	3.58	20.0
$60-70,000	4.20	15.4
$70-80,000	3.63	18.3
$80,000	3.49	14.6
All	5.08	21.8

Source: Carter and Stewart (2003) cited in Spencer, AJ. (2004) *Narrowing the Inequality Gap in Oral Health and Dental Care in Australia,* Australian Health Policy Institute, The University of Sydney, p. 15.

Compared to people with incomes above $40,000 who have dental insurance, health care card holders are more likely to:

- Perceive a need for treatment;
- Experience tooth ache in the past 12 months;
- Visited a dentist over five years ago;
- Have visited for a problem;
- Avoid or delay visiting a dentist because of cost;
- Wait beyond six months for an appointment;
- Report that cost prevented recommended treatment;
- Receive extractions in past 12 months; and
- Have received fillings during their last visit.[20]

PART 2 – DENTAL WORKFORCE SHORTAGE

As the ADA outlines below (see under Future Workforce Needs), there is a shortage in the total number of dentists to meet the need for dental care. In addition, and adding to the difficulty in accessing dental care for certain groups, is the maldistribution in the dental workforce.

Research shows there is a considerable difference in the number of practising dentists in city areas compared to inner regional, outer regional and remote/very remote parts of Australia.[21] As Table 2 shows, 78.7% of dentists work in major cities, 14.7% in inner regional areas, 5.8% in outer regional areas and 0.8% in remote and very remote areas. The practising rate per 100,000 population is strongly skewed in favour of major cities, with 56.2 dentists per 100,000 population working in major cities compared to only 22.9 dentists per 100,000 in remote/very remote areas.

Table 2: Estimated practising dentists and dentists per 100,000 population by ASGC Remoteness Area of main practice location, 2001

State/Territory	Major city	Inner regional	Outer regional	Remote/very remote	Australia
	Estimated number of practising dentists				
NSW	2,678	454	88	5	3,224
VIC	1,850	289	58	0	2,197
QLD	1,057	374	221	15	1,667
SA	716	44	50	16	827
WA	749	74	65	25	913
TAS	n.a	118	15	0	133
NT	n.a	n.a	39	13	52
ACT	179	0	n.a	n.a	179
Total	**7,229**	**1,352**	**536**	**74**	**9,192**
Total per cent	**78.7%**	**14.7%**	**5.8%**	**0.8%**	**100%**
	Practicing dentists per 100,000 population				
NSW	57.0	33.6	18.1	11.1	49.0
VIC	52.4	28.4	22.8	0.0	45.7
QLD	55.7	39.8	34.2	10.6	45.9
SA	66.0	23.5	28.1	27.1	54.7
WA	55.8	32.0	34.9	17.7	48.0
TAS	n.a	39.2	9.6	0.0	28.2
NT	n.a	n.a	36.6	13.8	26.1
ACT	56.0	0.0	n.a	n.a	55.9
Total per cent	**56.2**	**33.6**	**26.6**	**22.9**	**47.4**

Source: Australian Research Centre for Population Oral Health (2005) 'Geographic distribution of the dentist labour force', *Australian Dental Journal,* Vol. 50, No. 2, pp. 119-122.
Note: n.a denotes not applicable.

Examples of areas throughout Australia where the number of dentists per 100,000 population is particularly low include:[22]

- Central West New South Wales – 17.4 practising dentists per 100,000 population.
- Wimmera in Victoria – 23.6 practising dentists per 100,000 population.
- North West Queensland – 2.8 practising dentists per 100,000 population.
- Yorke and Lower North South Australia – 22.6 practising dentists per 100,000 population.
- Pilbara in Western Australia – 7.4 practising dentists per 100,000 population.

Workforce shortages and the maldistribution of the dental workforce make it particularly difficult for people living in rural and remote areas of Australia and for people on public dental waiting lists to access timely dental care. The ADA estimates there are approximately 600,000 people on public dental waiting lists throughout Australia. For some people, waiting times for public dental care extend beyond three years.[23]

Income and career path

Shortages in supply of dentists working in the public sector are exacerbated by the relatively low level of income and a perceived lack of a defined career path by public sector dentists compared to their counterparts working in the private sector. Research by the ADA shows that average salaries for dentists working in private practice are almost twice the average salaries for dentists working in the public sector.[24] A recent submission by the Australian Dental Association's New South Wales Branch[25] to a NSW inquiry into dental services cited results of a survey conducted by the Branch of members' views of the NSW public dental system. The submission argues:

> *"The main reasons for practitioners leaving the public system were stated as being seeking better remuneration and financial security or to broaden their clinical experience and skills. The overwhelming factor*

that would attract more practitioners into the public system was stated as being a dramatic improvement in pay and conditions."

While it is difficult to extrapolate results from a survey in one state and apply them to other states and territories across Australia, other studies also support this view. For example, a review in 2002 of community dental services in Victoria by the Victorian Auditor-General's Office[26] found low levels of recruitment and poor retention in the public sector could be attributed to the following factors:

- Lack of defined career path and limited opportunity for training;
- Limited range of procedures able to be practised and a comparatively high level of emergency work;
- Lower wages than the private sector;
- A perception that public sector dentistry was less regarded than private sector dentistry. The report found:

"We were advised that dentistry is, and has always been, private practice-based and the undergraduate course content emphasises the importance of private practice. This differs from medicine where the "best doctors" may be attached to public hospitals. The perception is not the same in dentistry and the good opportunities, including income, ability to provide a large range of service delivery types, control of own practice and future career, are perceived to be in the private sector."

Academic shortages

Shortages in the dental workforce also include shortages in the number of academics teaching in dental faculties. Dental schools are facing the immediate difficulty of attracting and retaining teaching staff, a trend that is common in a number of developed countries.[27] One reason for this is due to the gap between academic salaries and remuneration for dentists working in private practice. According to Tennant and McGeachie,[28] to compensate, some dental schools have developed the practice of initially appointing academic staff on relatively high salaries. They then provide such staff with

restricted rights of private practice (for example, up to 20% of their time can be spent in private practice). While attracting staff, budgetary constraints mean these measures effectively reduce the ratio of staff and staff teaching hours available in comparison to other faculties. Although this measure acts as an incentive for staff to remain in academia, it also means the school's salary costs are comparatively high and 20% of their time cannot be devoted to teaching and research.

The shortfall in academic staff has been supplemented by the voluntary contribution of dentists. Most Australian dental schools have used voluntary lecturers, examiners and clinical tutors for a number of years. The cost of voluntary contributions has been estimated by one dental school to be worth $650,000 per annum.[29]

Changes to Australia's higher education system

Recent higher changes to Australia's higher education system may only exacerbate the shortage of dentists working in rural and remote areas and in the public sector. According to *Australia's National Oral Health Plan 2004-2013,*[30] the number of graduates from Australia's dental schools is one-third less than in the 1970s, with graduation levels at their lowest level since the Second World War. Spencer et al.[31] estimate the number of dental graduates in Australia would need to increase by 120 each year for the Australian dental labour force to be sustainable in the medium to long-term.

For new students, the Commonwealth Government estimates that the student contribution amount (formally known as HECS) for dental students will rise from $6,136 in 2003 ($30,680 for a five year dental degree) to a range from $0-$8,355 from 2005 onwards ($41,755 for a five year dental degree).[32] For a student studying dentistry at the University of Melbourne, for example, annual student contribution fees are $8,004 in 2005 ($40,200 for a five year degree).[33] The cost of dentistry at the University of Melbourne for a full-fee paying local student is $30,000 for 2005 ($150,000 for a five year degree),[34] while a dentistry degree will cost $36,000 in 2005 ($180,000 for a five year degree) for international students studying at the University of Melbourne.[35]

Recent reforms to Australia's higher education sector mean that contribution fees have the potential to significantly impact on the delivery of dental care in Australia. While the ADA does not believe recent higher education changes will reduce the number of students choosing to study dentistry, it is concerned about the impact these changes will have on the future dental workforce. Faced with a high level of debt, the ADA is concerned that students will be more likely to choose to practice in metropolitan areas rather than rural and regional areas. Such an outcome may result in an exacerbation of the maldistribution of dentists throughout Australia. Similarly, the ADA is concerned that students graduating with high debts will be less likely to work in the public sector, adding pressure to public dental waiting lists. *Australia's National Oral Health Plan 2004-2013*[36] argues that lower remuneration levels in the public sector compared to the private sector is one of a number of reasons why it was difficult to attract dentists to work in the public sector.

PART 3 – FUTURE WORKFORCE NEEDS

Despite the success of water fluoridation, demand for dental care is expected to rise in future years. An examination of water fluoridation in Australia in 1996 by Spencer, Slade and Davies[37] concluded that "water fluoridation remains the most effective and socially equitable measure of achieving community wide reductions in dental caries". In 2004, a study by Armfield and Spencer[38] found that children who only consumed non-fluoridated water had 52.7% higher deciduous caries scores than children who had consumed fluoridated water throughout their life. Such research is supported internationally. In 1999 for example, the Centre for Disease Control and Prevention[39] in the United States argued:

> *"Fluoridation of community drinking water is a major factor responsible for the decline in dental caries (tooth decay) during the second half of the 20th century. The history of water fluoridation is a classic example of clinical observation leading to epidemiologic investigation and community-based public health intervention. Although other fluoride-containing products are available, water fluoridation remains the most equitable and cost-effective method of delivering fluoride to all members of most communities, regardless of age, educational attainment, or income level."*

The success of fluoridation and improvements in population health means that although people will need fewer dentures as they age, they will require more repair and restoration of their natural teeth.[40,41] The decline in tooth loss together with an ageing population means there is a growing population who will retain their teeth later into life. As Brennan et al. argue, "the decrease in tooth loss increases the pool of teeth at risk of disease".[42] In turn, this will increase the demand for dental care, which, according to the AIHW Dental Statistics and Research Unit,[43] will grow by 21% between 1995 and 2010.

The change in oral health of the Australian population was reflected in a study of service provision trends by private dental practitioners between 1983-84 and 1993-94. The study found there was a decline in the provision of

restorative prosthodontic services and a rise in "diagnostic, preventative, endodontic, and crown and bridge services".[44] Kawaguchi et al.[45] argue that these findings are consistent with improving patterns of oral health in the Australian population.

Dental workforce

The number of dentists working in Australia has grown in recent years. In the period from 1994 to 2000, the Australian dental workforce grew from 43 dentists per 100,000 population to 46.9 dentists per 100,000 population. During this period, the dental workforce has increased by 17.3% compared to a population increase of 7.4%. Despite this growth Australia ranks 19th out of 29 OECD countries for numbers of practising dentists per 100,000 population.[46]

Like the broader Australian health workforce,[47] however, the dental workforce faces the dual challenges of a shortage in the number of dentists and a maldistribution in the current supply. According to Spencer et al,[48] Australia's capacity to supply dental care is projected to fall below demand in forthcoming years:

> *"The capacity to supply visits is projected to fall well short of the Australian population's demand for dental visits … If trends in demand continue, even at half the pace observed during 1983-1998, Australians' demand for dental visits will increase from 23.8 million visits in 1995 to 33.2 million visits in 2010. The increase in demand is projected to be predominantly among middle-aged and older Australians, and for diagnostic, preventive, endodontic and crown and bridge services. The aggregate projected shortage in supply in 2010 is about 3.8 million visits, which equates to approximately 1,500 dental providers.*

As demand for dental care rises the number of dentists, dental hygienists, dental therapists and prosthetists will change in future years. According to Teusner and Spencer,[49] the number of dentists will grow by 17.7% during the

period from 2000 to 2015, as highlighted in Table 3. During this same period the number of hygienists is projected to increase by 36% while dental therapist and prosthetists' numbers are anticipated to fall by 10.2% and 9.4% respectively.

Table 3: Projections of the dental labour force: 2000, 2010 and 2015

Year	Professional group			
	Dentists	**Therapists**	**Hygienists**	**Prosthetists**
	Number of practitioners			
2000 (baseline)	8,991	1,260	405	836
2005	9,712	1,239	476	812
2010	10,241	1,196	522	790
2015	10,583	1,131	551	757
Percentage change: 2000-2015	17.7%	-10.2%	36.0%	-9.4%
	Practising rate per 100,000 population			
2000 (baseline)	46.8	6.6	2.1	4.4
2005	48.1	6.1	2.4	4.0
2010	48.5	5.7	2.5	3.7
2015	48.2	5.1	2.5	3.4
Percentage change: 2000-2015	**3.0%**	**-21.5%**	**18.9%**	**-20.8%**

Teusner, DN. and Spencer, AJ, (2003) *Projections of the Australian Dental Labour Force,* AIHW Cat. No. POH 1, Australian Institute of Health and Welfare, Population Oral Health Series, p. 44.

Skilled migration

Migration of overseas trained dentists to Australia is one of three main forms of recruitment to the Australian dental workforce. (Dental graduates from Australian universities and dentists returning to practice after a period of absence are the other major forms of recruitment.)[50]

Discussion about the most effective level migration of overseas trained dentists is not new. In 1982, Spencer[51] described how the inflow of dentists to Australia during the period from 1967-1980 had changed the supply of the dental workforce from a perceived undersupply to a perceived oversupply. Spencer argued:

> *"The net long term movement (of dentists) has shown a cyclic pattern of inflow and outflow. The cyclic nature of long term movement may be tied to social, political and economic conditions in donor and recipient countries."*

Since this period, the supply of dentists has fallen considerably to a state of undersupply, as outlined throughout this submission.

Today, Australia mutually recognises dental qualifications from England, Ireland and New Zealand. Dentists from other countries wishing to migrate to Australia must undertake an examination conducted by the Australian Dental Council. Responsibility for assessing and registering overseas qualified dentists lies with the Australian Dental Council. The Australian Dental Council also holds responsibility for accrediting postgraduate courses for specialist recognition.[52]

Eligibility to undertake the Australian Dental Council exam is limited to people with a bachelor of dentistry from an overseas university recognised by the Australian Dental Council. The exam procedure is in fact three separate parts which consists of: "… an Occupational English Test (OET); a Preliminary Examination (Multiple Choice Questions and Short Answer questions); and a Final Examination (Clinical). These must be taken sequentially".[53]

Overseas trained dentists who gain recognition to practice in Australia are awarded a certificate from the Australian Dental Council. In the period from 1990-2001, 294 dentists qualified for an Australian Dental Council certification, an average of 27 accreditations per year. Almost 45% of certificates were awarded to female dentists.[54] Most recently, and in response to workforce shortages, the number of overseas trained dental graduates has increased significantly. In the period from July 2004 to June 2005, 100 overseas trained dentists passed the Australian Dental Council final exam and are eligible to register to practice in Australia. This figure is considerably larger than the numbers graduating from any Australian dental school. In 2001, the Australian Dental Council held two final exams per year. In 2005 six exams will be held while seven are planned for 2006.[55]

Overseas trained dentists have made and continue to make an important contribution to the provision of oral health care in Australia. Having regard to a

global responsibility, Australia must ensure that it has an adequate dental workforce to meet the future health needs of its population. According to Spencer el al:[56]

> *"The policy directions considered most useful include a short-term increase in recruitment from among overseas dental graduates, gradually reducing as the education of dentists, therapists and hygienists in Australian universities is able to satisfy the required growth in capacity of the dental labour force."*

This view is supported by recommendations made by the Australian Health Ministers' Conference[57] for the broader Australian health workforce. It argues Australia should "reduce immediate [workforce] shortages through short-term strategies including improving workforce re-entry and ethical overseas recruitment". Beyond this, dental workforce shortages are best solved by the education and training of Australian dental students as they will represent the best long-term solution. Again, the Australian Health Ministers' Conference argues:[58] "Australia should focus on achieving, at a minimum, national self sufficiency in health workforce supply, whilst acknowledging its part in a global market."

Policies to manage the recruitment of overseas trained dentists should carefully consider the dual concerns of a global shortage of dentists[59,60,61,62] and the ethical considerations[63,64] of solving workforce shortages by recruiting dentists from developing countries.

The World Health Organisation (WHO)[65] has argued: "the loss of human resources through migration of professional health staff to developed countries usually results in a loss of capacity of the health systems in developing countries to deliver health care equitably."

Allied dental personnel

There is significant and ongoing national and international debate – from within and outside dental profession – about the most appropriate role for

allied dental personnel in the provision of oral health care. A key feature of this debate concerns the role played by allied dental personnel to alleviate workforce shortages.[66,67,68,69]

The ADA believes that the best mix of the 'dental team' includes a dentist, dental hygienist, dental assistant and dental technician. Dentists should be responsible for the diagnosis, treatment planning, delivery of dental procedures, and continuing evaluation of the oral health of the patient. Dentists should also responsible for the support, direction and supervision of allied dental personnel in the conduct of prescribed duties for which they are legally accountable. The duties of dental hygienists should focus towards oral health education and the prevention of dental diseases, including dental caries and periodontal disease. Dental assistants should provide the 'extra hands' required in the provision of services by dentists that are associated with chair-side assisting and practice administration. Dental technicians may work independently of dentists, however, should adhere to the prescription of a dentist and is not permitted any direct dealings with members of the public except in the case of non-invasive shade taking at the direction of the dentist. [70]

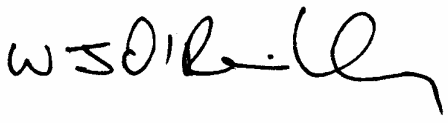
The most effective role for dental therapists is a continuation of their role in providing services through the dental school program. Dental therapists play a significant part in the achievement of high standards of oral health of Australian children and should continue in this effective role, which by definition is outside the 'dental team'. As outlined previously in this submission, the oral health of Australian children ranks second among all OECD countries[71] and children of school age enjoy high level levels of oral health and good access to care that is affordable and efficient.[72]

CONCLUSION

The challenges that face the Australian dental workforce largely relate to the problem the workforce is aiming to solve (and prevent) – that is, oral health disease. With this in mind, future planning of the dental workforce largely relates to the major goals of treating existing disease and preventing future disease. The difficultly in achieving this goal is complicated by a shortage in the dental workforce, a maldistribution in workforce supply and a polarisation of the oral health of the Australian population. Furthermore, oral health is largely separated from general health. This was highlighted by the Australian Health Ministers' Advisory Council[73] which argued:

> *"Dental services in Australia have developed in a piecemeal fashion without overarching planning to address the needs of the community. Their separation from general health services and the fact that they are largely financed from private sources has resulted in the development of a set of independent services without any systematic coordination and with minimal formal linkages to general health services."*

While this submission makes a number of recommendations to improve the supply of the dental workforce, the ADA believes it is essential that oral health workforce planning be coordinated centrally by the Commonwealth Government. Until this occurs the oral health needs of the Australian population will be compromised by shortages in the number of dentists, maldistribution in workforce supply and continuation of long waiting times for care, particularly for patients on public dental waiting lists.



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