

# Senate Inquiry into Hearing Health in Australia – Victorian Deaf Society Submission

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## Summary

The Victorian Deaf Society welcomes the Senate Inquiry into Hearing Health in Australia and is grateful for the opportunity to present a submission on the many issues of relevance to the inquiry. Given the breadth of the inquiry, we have chosen to limit our submission to areas of direct relevance to government – either because they pertain to government policy or because government bodies are significant service providers or funding agencies in the area under discussion.

For ease of reference, this summary lists all of the recommendations made in this submission – please refer to the relevant chapter of the report for important contextual information surrounding each recommendation.

- 1. Recommendation: Develop a national strategy for hearing awareness and hearing health in rural areas in partnership with key stakeholders**
- 2. Recommendation: Develop a national strategy to promote hearing health, with a particular emphasis on changing young men’s behaviour**
- 3. Recommendation: That government (and particularly FaHCSIA) continue working with key stakeholders to implement the recommendations of the Access Economics report *Auslan interpreter services in Australia: Supply and demand***
- 4. Recommendation: That federal and state government work with education service providers to improve the quality and comprehensiveness of support services provided to deaf students.**
- 5. Recommendation: That government work with VET providers to establish basic education courses which specifically cater to the language and literacy issues of Deaf and hard of hearing students.**
- 6. Recommendation: That the Department of Immigration and Citizenship to work with AMEP providers to develop pathways to English and Auslan for deaf migrants to Australia**
- 7. Recommendation: That the federal government expand funding of programs which support Deaf and hard of hearing people to gain and remain in employment**
- 8. Recommendation: That AFE eligibility is expanded to allow all Auslan users in employment to access AFE services**

9. Recommendation: That CART services be expanded following the completion of the current CapTel trial
10. Recommendation: that funding be provided for a national roll-out of VRI technology over the next 5 years
11. Recommendation: that emergency communication options for Deaf and hard of hearing Australians be reviewed, with the aim of increasing accessibility
12. Recommendation: That government investigate the effectiveness of different variable frequency alarms as a prelude to changing the standard tone of smoke alarms
13. Recommendation: That a national smoke alarm subsidy scheme be implemented for Deaf and hard of hearing Australians.
14. Recommendation: That a national baby cry alarm subsidy scheme be implemented for Deaf and hard of hearing Australians in conjunction with the national smoke alarm scheme.
15. Recommendation: that the Commonwealth Hearing Services Program be expanded through the Declared Hearing Services Legislation to include refugees and refugee-like migrants
16. Recommendation: that the Commonwealth Hearing Services Program be expanded through the Declared Hearing Services Legislation to include people in the 21-65 age group
17. Recommendation: that the Commonwealth Hearing Services Program move to an outcomes-based model of service provision for contracted hearing aid providers.
18. Recommendation: That government extend public funding for hearing services to cover management of tinnitus and reduced sound tolerance.
19. Recommendation: That the Federal government work with the States to establish universal newborn hearing screening across Australia, together with appropriately resourced early intervention services
20. Recommendation: that universal hearing screenings be given to all new migrants to Australia, and appropriate referral networks be established to support those migrants with a hearing loss to access deafness services.
21. Recommendation: That the government work with nursing home providers to provide regular hearing screenings for residents and training for staff in communicating with residents with a hearing loss.
22. Recommendation: that annually a pool of research funding be set aside to fund action research projects undertaken by service providers

## 1. Introduction

The Victorian Deaf Society (Vicdeaf) has been the main provider of general and specialized community service support and communication services to Deaf and hard of hearing people throughout Victoria for the past 125 years.

Our services include: audiology, hearing loss management, information and education across a wide range of support services, advocacy, case management, hearing screening, sign language classes (Auslan), interpreting services, clubs and group forums, counseling, support for independent living, research, communication, and employment readiness and support.

The Society welcomes the Senate Inquiry into Hearing Health in Australia and is grateful for the opportunity to present a submission on the many issues of relevance to the inquiry. Given the breadth of the inquiry, we have chosen to limit our submission to areas of direct relevance to government – either because they pertain to government policy or because government bodies are significant service providers or funding agencies in the area under discussion. While all of our recommendations are of relevance to federal government, in some instances they necessarily would require cooperation with state government or other agencies in order to be enacted. Please note that we are also submitting a copy of the 2006 Access Economics report *Listen hear: The economic impact and cost of hearing loss in Australia. A Report commissioned by Vicdeaf and the Hearing CRC* as an appendix to our submission.

The Victorian Deaf Society is happy to provide further advice or clarification to the inquiry on any of the matters raised in this submission – please contact the submission author, Dr Louisa Willoughby, in the first instance on 9473 1111 or [louisaw@vicdeaf.com.au](mailto:louisaw@vicdeaf.com.au).

## **2. Extent, causes and costs of hearing impairment in Australia.**

Vicdeaf is proud to take the lead nationally in the provision of statistics on the extent, causes and costs of hearing impairment in Australia. In 2005 The Victorian Deaf Society and the Hearing CRC commissioned Access Economics to write the Listen Hear report, which examines the economic impact and cost of hearing loss in Australia, as well as its extent and causes.

A copy of the report is attached to this submission as an appendix. In this section of our submission, we briefly outline key findings and figures from the report and other key research

### **2.1 Extent and causes**

The Access Economics report calculated the extent of hearing loss in Australia by referring to a range of local and international studies of hearing loss prevalence rates, and also by referring to unpublished data from Australian Hearing on the demographics and degree of hearing loss of their juvenile client base.

The report found that currently, one in six Australians are affected by hearing loss. Hearing loss is highly age-graded, affecting less than 1% of children (0-15 years), but over 75% of people aged over 70 years. As the Australian population ages, rates of hearing loss are projected to increase to one in four Australians by 2050.

Recent studies of neonatal screening programs (e.g. Bailey et al 2002, Mehl and Thomson 2002) and data on clients accessing national services for Deaf and hard of hearing children (e.g. Upfold and Ipsey 1982, Australian Hearing 2005) have uncovered two distinct trends in childhood hearing loss: while the overall prevalence of hearing loss is rising relative to earlier studies (around 2-2.5 per 1,000 children) severe-profound loss remains limited to less than 1 in 1,000 children. That more children are having their hearing impairment detected, while at the same time less children are being found to have a severe-profound hearing loss can be attributed to a combination of medical advances - such as rubella immunisation and genetic counselling - which work to eliminate many of the causes of congenital deafness, and more sensitive testing and assisted listening devices, which work to ensure a higher proportion of children are able to access support for their hearing loss (Johnston 2004, Hintermair and Albertini 2005).

Among adults, the incidence of hearing loss is highly age graded. Of those aged 15-50, the overall incidence of hearing loss is estimated at 5%, climbing to 29% for those aged 51-60, 58% for those aged 61-70, and 74% for those aged 71 and over (Access Economics 2006:34). Estimates on the proportion of adults with a mild, moderate or

severe-profound within each age group are not available, however for hearing impaired adults as a whole the percentages are thought to be 66% mild, 23% moderate and 11% severe or profound (Access Economics 2006:33).

Some hearing loss is a natural part of the aging process, however, Wilson (1998:34) notes that in 37% of people with a hearing loss noise exposure had contributed to at least some of their hearing loss. The leading cause of noise-induced hearing loss in Australia is workplace noise (Access Economics 2006:18). Significant gains have been made in recent years alerting workers in factories and heavy industries to noise risks, however more limited progress has been made combating the issue of workplace noise with farmers. For example, Challinor et al (2000) surveyed over 1,700 farmers/farm workers in NSW and found a higher incidence of hearing loss. By age of 65 the average worker had a 60dB high frequency loss, a loss severe enough that they would not be able to communicate with family or friends without great difficulty. Similarly, Williams et al conducted hearing tests on 260 farmers at a field day in the Northern Yorke area and found that “the average [hearing] loss of the sampled farmers commences earlier and remains much greater than that expected for an otologically normal population” (2002:183). Williams et al also surveyed their sampled farmers/farm workers about their use of hearing protection (earplugs and earmuffs) and found quite low usage rates – for example only 18% reported always using hearing protection when operating heavy machinery and 16% always used it when using a shotgun (2002:185). Williams et al thus attribute the inflated rates of hearing loss in the farming population to this low use of hearing protection and call for the development and implementation of an Australia-wide farm noise injury prevention strategy. The Victorian Deaf Society is acutely aware of the issues surrounding noise-induced hearing loss (and poor knowledge of hearing health issues more generally) in rural areas and has thus established the Hear Here project in rural Victoria to bring free preliminary hearing checks and hearing health information to farmers and other members of the rural community. However, as this project relies 100% on donated funds for financing, it is necessarily limited in scope and cannot address related systemic issues such as the lack of local audiology services in much of rural Australia.

**Recommendation: Develop a national strategy for hearing awareness and hearing health in rural areas in partnership with key stakeholders**

Up until the age of 60, men are around 2.5 times more likely to have a hearing loss than women - a finding normally attributed to greater exposure to workplace noise and hence a much higher incidence of occupational hearing loss (Access Economics 2006:31). However, a recent review of research on hearing loss in 12-25 year olds found that males are also more likely than females to engage in a number of recreational behaviours that increase the risk of developing a noise-related hearing loss (Vogel 2007). The review of 16 published articles concluded that

Males ... have more social noise exposure, and were more interested in noisy sports, home tools, and shooting, and in playing in a band. They also used and preferred higher music levels,

used their portable music players for a longer average time, expressed less worry about the presence of hearing-related symptoms, had more positive attitudes toward noise, showed lower levels of desired behavior change, and were less likely to use hearing protection. Furthermore, males were found to have a higher mean hearing threshold level, a higher prevalence estimate of noise-induced hearing threshold shifts, and a higher prevalence of high frequency hearing loss. (Vogel et al 2007:127)

Thus it is clear that there is a particular need for hearing health education campaigns specifically targeting young men, which take into account their life stage and circumstances and present their message in a format likely to appeal to this age group. A possible model for such a campaign is the “Don’t lose the Music” campaign run by the RNID in the UK (<http://www.dontlosethemusic.com>), which Vicdeaf is considering adopting for local use.

**Recommendation: Develop a national strategy to promote hearing health, with a particular emphasis on changing young men’s behaviour**

In recent years there has been much attention given to MP3 players as a possible cause of noise-related deafness. The Access Economics report touches on this issue and concludes that there was little, if any evidence so far of exposure to loud music through personal players leading to permanent hearing loss (2005:19), however, more recent research is suggesting that there may be a link (cf. Vogel et al 2007, 2008). What is certain is that many people are listening to their MP3 players louder and longer than is recommended (Newspaper sources). Only time will tell whether this translates to higher levels of hearing loss, however already increasing numbers of adolescents and young adults are showing symptoms related to the early stages of noise-related deafness, such as distortion, tinnitus, hyperacusis, and threshold shifts (Vogel et al 2008:400). This development has also been evidenced in recent hearing screenings undertaken by Vicdeaf.

### **2.1.1 The signing Deaf community**

Among Australians with a hearing loss, sign language users make up only a small percentage. However, given that they are extensive users of interpreting services it is worth concluding this section with a short discussion on the size and demographics of the Australian signing population. The 2006 census recorded 7,150 people ‘speaking’ a sign language at home<sup>1</sup>, up from 5,503 in 2001. This increase is well above what could be expected from natural growth (especially since Johnston 2004 has hypothesised that the signing population in Australia is declining) and is likely caused by changes in reporting behavior. Since sign languages are not spoken per se, Ozolins and Bridge (1999:8) hypothesized that many sign language users were not listing their languages

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<sup>1</sup> This figure includes those who called their language “Auslan” those who called it simply “sign language” and those who reported using a sign language of another country such as British Sign Language or American Sign Language.

on the census. As a result, many Deaf community groups instituted public awareness campaigns in the lead-up to the 2006 census encouraging people to list Auslan on the census, with the result that the signing population increased substantially.

Census figures for Victoria suggest that the signing population of Australia is relatively young: in Victoria 40% were aged under 30, 33% aged between 30-49 and only 15% were aged 60 or over at the time of the census (Willoughby 2009a). This distribution conflicts with anecdotal understanding within the Deaf community and also Johnston's (2004) major research article on the size of the Australian Deaf community, both of which see the community as aging (not least because medical advances have reduced the incidence and severity of congenital hearing loss). It thus seems likely that the age distribution seen in Victoria is a reporting error – perhaps brought about by low literacy skills impairing older Deaf Victorians' ability to list Auslan on the census (see Willoughby 2009 for more on this point). However, it may also be indicative of an increase in the number of families with deaf children using some form of sign language with their deaf child(ren) at least some of the time. In this, the data does seem to be in line with trends noted overseas (e.g. Gregory, Bishop and Sheldon 1995, Meadow-Orlans and Sass-Lehrer 2003) of families increasingly turning away from oralism as their sole means of communication with their deaf child and incorporating at least some sign language or sign supported speech into parent-child interactions.

Estimating the total size of the Australian signing population is a difficult undertaking precisely because estimates will vary markedly depending on what inclusion and exclusion criteria are applied. On the basis of extensive empirical research Johnston (2004) concluded there were likely around 6,500 native signers (that is people born deaf who use Auslan as their first language) in Australia. However, if we include people with a significant hearing loss who come to Auslan later in life the number is likely higher, and including hearing family members or friends who have learnt to sign to communicate with a Deaf person will increase numbers further still. A recent report by Access Economics (2008), which focused on demand for Auslan interpreting services, estimated there were 5,612 Auslan users likely to utilize interpreter services in Australia in 2007. Meeting the interpreting needs of this group required 206 FTE interpreters in 2007, however demand for interpreting is growing (not least due to Deaf people accessing higher education in greater numbers) and it is projected that 427 FTE interpreters will be required by 2030 (2008:i). As there is already an interpreter shortage in Australia, the Access Economics report predicts this will worsen in coming years unless steps are taken to improve interpreter recruitment and retention.

**Recommendation: That government (and particularly FaHCSIA) continue working with key stakeholders to implement the recommendations of the Access Economics report *Auslan interpreter services in Australia: Supply and demand***

## 2.2 Costs of hearing loss

In 2005, Access Economics estimated the real financial cost of hearing loss to be \$11.75 billion or 1.4% of GDP. This figure represents an average cost of \$3,314 per person per annum for each of the 3.55 million Australians who have hearing loss or \$578 for every Australian. This costing does not take into account the net cost of the loss of wellbeing (disease burden) associated with hearing loss, which is a further \$11.3 billion.

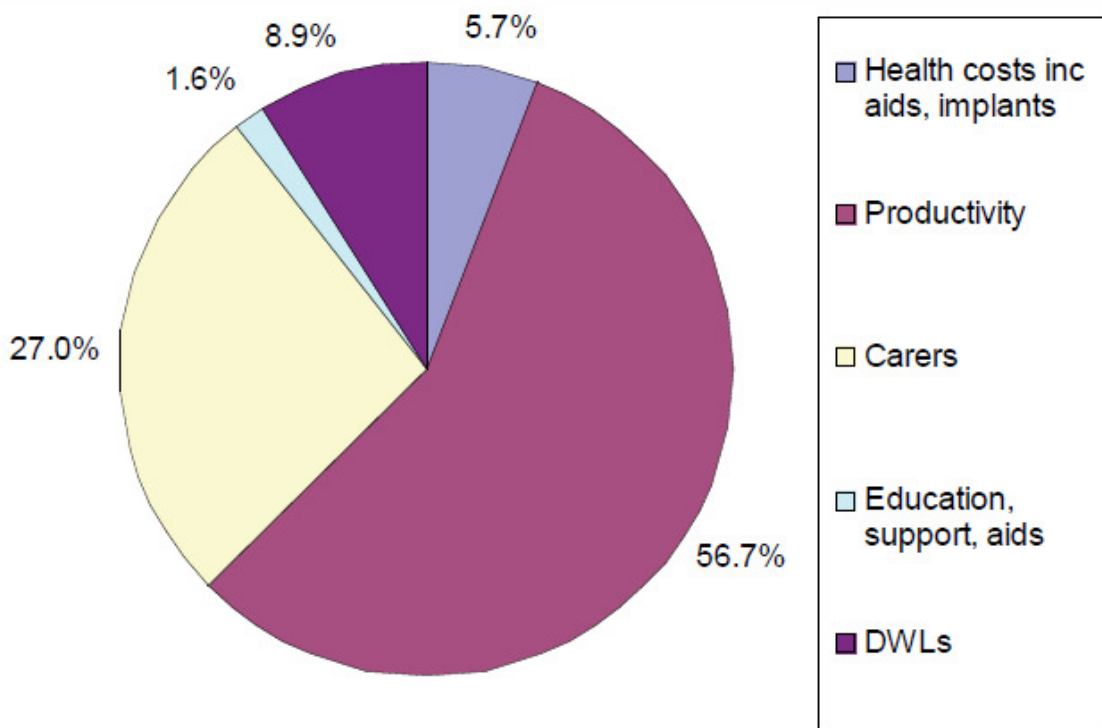
The table and graph below (reproduced from page 68 of the Access Economics report) illustrate the spread of costs:

**TABLE 5-15: HEARING LOSS, FINANCIAL COST SUMMARY, 2005, \$M**

<b>Cost element</b>	<b>Real cost</b>	<b>Transfer payment</b>
<b>Total health costs plus hearing aids &amp; implants</b>	<b>\$674</b>	<b>\$315</b>
<i>Indirect financial costs</i>		
Lost earnings (people with hearing loss)	\$6,667	
Tax foregone (people with hearing loss)		\$1,333
Value of carers	\$3,168	
Welfare payments		\$1,328
Education, support and aids	\$191	
Deadweight losses	\$1,048	
<b>Total indirect financial</b>	<b>\$11,073</b>	
<b>Subtotal, financial costs</b>	<b>\$11,748</b>	<b>\$2,662</b>
Per person with hearing loss	\$3,314	
Per capita (population)	\$578	
<b>% of GDP</b>	<b>1.39%</b>	



**FIGURE 5-3: HEARING LOSS, FINANCIAL COST SUMMARY, 2005 (% TOTAL)**



Source: Table 5-15

The largest financial cost component is lost productivity, which accounts for well over half (57%) of all financial costs (\$6.7 billion). Nearly half the people with hearing loss are of working age (15-64 years), and there were an estimated 158,876 people not employed in 2005 due to hearing loss. Since fewer people with hearing loss are working, as a group they have reduced incomes and, as such, pay less income taxation. With lower income, they also consume less, so the government forfeits both income and consumption tax revenues, worth \$1.3 billion in 2005. Moreover, a further \$1.3 billion is required by the Government to finance the welfare payments to people with hearing loss (Access Economics 2006:6).

### **3 Implications of hearing impairment for individuals and the community**

The implications of hearing impairment on the individual and community are many and varied. In the interest of brevity, this submission confines itself to the three areas of education, employment and technology. As a service provider we see these as the most pressing needs facing our clients, and they are also areas where government policy intervention has the potential to be highly effective.

#### **3.1 Education**

Access to appropriate education remains an issue for Deaf and hard of hearing Australians. For the school years, parents have the choice of mainstreaming their child with support from visiting Teacher of the Deaf, sending them to a mainstream school with a dedicated Deaf Facility or sending them to a dedicated School for the Deaf. However, in practice there are only a handful of Deaf Facilities and Schools for the Deaf in each state, meaning many parents choices are constrained by what is available in their local area. Additionally, since Deaf Facilities/ Schools each use different communication methods (e.g. oral only, signed English, Auslan-English bilingual) parents may also run into difficulty attempting to match their child's communication preferences with the schools on offer. This is particularly an issue for parents looking for an Auslan-English bilingual program as they are only offered by one or two school in five of the eight states and territories of Australia (Komesaroff 2008:51-2).

Regardless of the education settings, concerns remain about the adequacy and resourcing of support programs for deaf students. In general, research has found that mainstreaming can be very effective for students who have lower levels of hearing loss and communicate orally (cf. Power and Hyde 2002), however it may be problematic for those who have higher levels of hearing loss, particularly if they do not communicate orally (cf. Wilkinson 2006). For all students, there is a pressing need to ensure that support services adequately match the needs of the child – removing current problems such as students who communicate via Auslan being assigned classroom aides with no knowledge of Auslan. All teachers in schools with deaf students also need to be aware of basic issues surrounding the child's hearing loss and strategies to best communicate with them, and need to work with parents to ensure that Deaf and hard of hearing students are not excluded from the social or academic aspects of school life.

One emerging option for students who communicate in Auslan is to be placed in a mainstream setting with support from an Auslan interpreter, as well as visits from an itinerant Teacher of the Deaf. Here it must be stressed that access to interpreter is by no means guaranteed for a mainstreamed Deaf child, but significant gains have been made

in recent years in both the number of qualified educational interpreters available to work in schools and the level of interpreting support education departments are offering to mainstreams Deaf children (Richards 2006, Williamson 2006, Komesaroff 2008). As Auslan interpreters have only been widely used in the past ten years, issues remain in such areas as negotiating their role and relationship with the mainstream class teacher and itinerant Teachers of the Deaf (cf. Richards 2006, Williamson 2006) but they provide a valuable alternative education option, particularly for students living in areas where no local schools offer a Deaf Facility.

Historically, deaf students in Australia have had limited access senior secondary and tertiary education, and concomitantly poor educational outcomes relative to the general population. However, a number of developments in recent years have worked to improve the educational opportunities available to them. Perhaps the most important of these was the passage of the Disability Discrimination Act in 1992, which both prohibits discrimination on the basis of disability and requires tertiary institutions to make “reasonable accommodations” to support the needs of disabled students. In the case of Deaf and hard of hearing students, what this means in practice is that they have access to support services such as Auslan interpreters, notetakers, tutoring, extra time in exams and technologies such as FM systems and hearing loops to aid their classroom participation (Clark 2007a:12). This has gone a long way towards making higher education accessible for deaf students where previously no supports were formally available. However, some issues remain including:

- Quality and availability of educational Auslan-English interpreters (particularly those with requisite knowing to interpreter specialized discourse such as chemistry lectures)
- Limited access to captioned lectures/ captioned lecture recordings
- Difficulties fulfilling work placement components of courses (reluctance of employers to take on deaf trainees and lack of employer awareness/ support services for the trainee to effectively perform their job and learn from the placement experience)
- Lack of understanding from some faculty about the deaf student’s communication needs and corresponding lack of accommodation to those needs

As the support system matures, it is hoped that many of these problems will be ironed out, but continued vigilance is required to ensure higher education providers continue to meet their DDA obligations, and ongoing funding is required from State and Federal governments to ensure providers are able to support all students without needing to ration services.

**Recommendation: That federal and state government work with education service providers to improve the quality and comprehensiveness of support services provided to deaf students.**

Recent years have seen Deaf and hard of hearing students taking up tertiary education in large numbers. One source of data on this point is the 2006 census, where the educational outcomes of sign language users can be compared to those of the general population. Looking at census data from Victoria, Willoughby found that sign language users are almost as likely as members of the general population to hold a Bachelor's level qualification or higher (15% as against 17%) and were slightly more likely to hold a certificate level qualification (22% as against 21%). In a similar vein NCVER (2005:21) reports that in 2003 10,558 vocational education and training (VET) students reported having a hearing disability. This figure represents 11.5% of the VET student population for that year. Students with a hearing disability are on average significantly older than other VET students: in 2003 around 43% were aged over 40 years and only 24% were aged under 25 years (NCVER 2005:21). This seems to indicate that older deaf and hard of hearing people are taking advantage of new support provisions to access a range of courses that they were not able to access as young adults.

While these statistics read like a 'good news story' there is some concern that they mask continuing inequalities in educational outcomes. This is borne out by findings such as Clark's (2007) finding that students who declared a hearing impairment to a Victorian VET provider were around 50% more likely to be enrolled in low level Certificate I and II courses than members of the general VET student population. The difference was particularly marked at the Certificate I level, which was chosen by 14% of hearing impaired students, but only 5% of the general student population. Clark also notes that only 37% of Deaf and hard of hearing students in her sample had completed year 12 before they undertook their vocational course (figures for the general population not stated; 2007a:9), suggesting that for many deaf Victorians vocational courses act as a replacement for, rather than an addition to, senior secondary education. These conclusions are supported by data from the 2006 census on Auslan users for Victoria, which show only 35% have completed year 12, as against 44% of people in the general population (Willoughby 2009). Additionally, 15% of sign language users left school in year 8 or earlier, as compared to 10% of the general population. Taken together these findings suggest that while equality of education access has improved greatly, equality of outcomes remains a way off.

Providing education services for adults who have had only basic education is a challenge whether they are deaf, migrants, or members of other disadvantaged groups. For Deaf and hard of hearing people who were early school leavers there are often limited pathways for further education in the TAFE sector, and those who have had negative school experiences may be very reluctant to attend mainstream classes with hearing classmates. Deaf students with low education often have very specific literacy needs that require a different pedagogical approach to that normally taken with hearing students. As such they are best served by deaf-specific basic education courses taught by experienced Deaf Educators. Here the submission would like to recommend the Deaf Education activities of TAFE SA as a world-leading model of best practice in basic and vocational education for Deaf people. Implementing similar models at TAFEs in other

Australian capital cities would significantly increase the education opportunities available to Deaf and hard and hearing, leading to improved employment opportunities and a reduction in welfare dependency.

**Recommendation: That government work with VET providers to establish basic education courses which specifically cater to the language and literacy issues of Deaf and hard of hearing students.**

A final group in the Australian Deaf community who face significant education challenges are adult Deaf migrants from Non-English speaking countries. These adults often arrive in Australia with minimal language skills in any language and severely interrupted schooling. In her research on the situation and needs of deaf migrants to Victoria, Willoughby (2008) found that deaf migrants were frustrated at the total lack of Auslan classes available to them, and the inaccessibility of AMEP English classes (it should be noted that AMEP providers were happy to provide Auslan interpreters or note-takers to support the migrants attending English classes, however these measures are not helpful if the migrant does not know Auslan or any written language to begin with). In response to this need, the Victorian Deaf Society was able to secure funding from the Department of Human Services for Auslan classes for a group of around 12 migrants, and from 2010 the AMEP will run customized English literacy classes (with Auslan interpreters) for graduates of the Auslan program. Both of these innovations have been relatively inexpensive (each less than \$15,000 p.a.) but have had an enormous impact on the independence, mental health and well-being of participants. Without similar bridging programs, deaf migrants in other states are effectively denied access to the AMEP and to a language of wider communication and this submission thus strongly urges the Department of Immigration and Citizenship to work with AMEP providers to develop pathways to English and Auslan for deaf migrants to Australia.

**Recommendation: That the Department of Immigration and Citizenship to work with AMEP providers to develop pathways to English and Auslan for deaf migrants to Australia**

## 3.2 Employment

Unemployment, and particularly underemployment have always been major issues for Deaf and hard of hearing people around the globe. Looking first at unemployment, a consistent pattern emerges from Australian and US studies that Deaf<sup>2</sup> people tend to have an unemployment rate between 2-4 times higher than the national average (Welsh and Gallinger 1992, Deaf Society of NSW 1998, Winn 2007, Willoughby 2009a). When education level is controlled for Deaf and hearing people with bachelor degrees show

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<sup>2</sup> Studies also differ in the scope of who they include as "deaf" although the majority concentrate on people who use a sign language as their preferred mode of communication.

similar employment outcomes, but for each lower level of education (e.g. 2 year technical certificate, high school education only) the Deaf group show poorer employment outcomes than hearing people with the same level of education (Cf. Welsh and Walter 1987, Welsh and Gallinger 1992, Schroedel and Geyer 2000).

Underemployment is much harder to measure, not least because it can be variously defined as working in a part-time or casual positions when one would prefer full-time work or working in jobs for which one is over-qualified or manifestly under-paid. However defined or measured though it is clear that underemployment and associated issues of discrimination at both the hiring and promotions level are common problems for working Deaf people (Schroedel and Geyer 2000, Punch et al 2004, Winn 2007,) and mean that they may face difficulties translating their educational capital (qualifications, skills, experience etc) into the economic and social capital of stable, stimulating and appropriately remunerated employment.

Some of the most comprehensive data we have in Australia on the impact of hearing loss on employment comes from the South Australian Health Omnibus Study (1994, cited in Access Economics 2006:53). Of the 329 participants aged 15-64 who reported having a hearing loss, 55.6% reported being in paid work compared with 62.4% of the 2,502 respondents without hearing problems. Notably, those with hearing problems were almost three times as likely to have retired early (12.1% as against 4.3%). Willoughby (2009a) notes a similar trend in census data for Victorian sign language users, where in the 45-64 age group sign language users are slightly less likely to list themselves as unemployed than members of the general population (3.3% as against 3.8%), but at 62% have a labour force participation rate more than 5 percentage points below that of the general population. Given the financial and skills pressures caused by Australia's we can ill-afford to see such high rates of unemployment and early retirement among Deaf and hard of hearing Australians.

**Recommendation: That the federal government expand funding of programs which support Deaf and hard of hearing people to gain and remain in employment**

Despite the educational advances described above, census data from Victoria indicates that sign language users are still twice as likely to be employed as labourers than members of the general population and less than half as likely to work as managers (Willoughby 2009a). As a group, sign language users in Victoria report very low incomes: in 2006 52% of those aged over 15 reported earning less than \$400 a week, as compared to 42% of the general population (Willoughby 2009a). This submission hypothesizes that employer attitudes are often more of a barrier to Deaf and hard of hearing people gaining professional employment than any actual communication difficulties. As such programs designed to change attitudes (either through education or financial incentive) may be effective in raising the employment level of Deaf and hard of hearing Australians, and with it their work satisfaction, financial resources and contribution to the tax base.

In closing this section the submission would like to flag the Auslan for Employment Program as an excellent Federal Government initiative for increasing the participation of Deaf Australians in the labour force. A particular strength of AFE is that it provides training in Auslan and effective communication for the coworkers of the Deaf person, (as well as providing Auslan interpreters at meetings and similar occasions) and thus empowers hearing coworkers to communicate with their Deaf colleague without needing to always rely on an interpreter. Issues remain in the limitation of AFE eligibility to new employees and those whose job may be at risk, however the submission strongly argues that an expanded AFE would do much to reduce the barriers to career progression currently faced by many Auslan users.

**Recommendation: That AFE eligibility is expanded to allow all Auslan users in employment to access AFE services**

### 3.3 Technology

Recent technological advances have opened up new possibilities for Deaf and hard of hearing to access information and communicate more freely. As research by Power, Power and Horstmanshof (2007) demonstrates, Deaf Australians are enthusiastic users of SMS, TTY (telephone typewriter), email, chat/instant messaging and faxes as a means of communicating at a distance with both other Deaf and hearing people. Such technology has done much to overcome communication barriers between Deaf/ hard of hearing people and hearing people. As businesses begin to adopt instant messaging (or potentially Google Wave) as a normal way of communicating within the office, we can expect to see workplace communication barriers decline further still – at least for those Deaf and hard of hearing people with strong English literacy skills.

While there are many technological innovations that could be discussed in this section, we have limited the discussion to five areas where we feel government intervention is most required. The first two refer to cutting-edge communications technology, and the last three to providing non-auditory warnings systems and emergency communication.

#### 3.3.1 Computer-assisted real time captioning (CART)

CART provides live captioning of telephone conversations, meetings or similar speech events and is particularly useful for hard of hearing people who speak but have difficulty hearing what is said to them. For example, the National Relay Services is currently trialling a version of CART (called CapTel) that displays a transcription of all that is said in a telephone conversation on the screen of a specially designed telephone.

CART has the potential to greatly improve access for Deaf and hard of hearing people to meetings, conference presentations and similar communicative events. For those who

speak, but have difficulty hearing, it can also be used effectively in settings such as medical consultations to ensure both parties fully understand what each other has said. As CART services can run over an internet connection with minimal peripherals (microphone, screen and CART software) it can be easily provided remotely to a range of sites at low start-up costs. Currently, however, there is little opportunity for Deaf and hard of hearing Australians to access CART services. This submission thus recommends state and federal governments work together to expand and promote CART services.

**Recommendation: That CART services be expanded following the completion of the current CapTel trial**

### 3.3.2 Video Relay Interpreting

VRI works on a similar principle to CART, however in this case an Auslan interpreter uses a video link to convey spoken English into Auslan and vice-versa. The technical requirements of transmitting and receiving a high quality Auslan video over the internet are somewhat higher than those required by CART because they require high quality video capacity to ensure the integrity of the sign language used. However current trials of VRI by the Department of Human Services with Vicdeaf and of VRS by the Australian Communication Exchange (ACE) are indicating that it is likely to be a viable alternative to providing Auslan interpreters on site.

An issue in the provision of VRI services has been access to high-quality broadband connections that allows for the transmission of video signal at a rate and resolution where the Auslan signs can be easily understood by the receiver. For the ACE VRS trial, users have been relying on the vagaries of their home/office broadband connections, whereas for the DHS VRI setup a virtual private network (VPN) has been created (at considerable expense) to guarantee quality of video transmission. Limitations of the Australian broadband network mean that VRI over standard connections is difficult under present conditions (without a VPN), however the development of the National Broadband Network should remove these constraints and enable VRI from any computer with the appropriate peripherals.

One of the great advantages of VRI over face-to-face interpreting is that it eliminates interpreter travel time, and thus greatly increases the hours in which they are available for interpreting. Given that Australia currently has a shortage of Auslan interpreters – and that this shortage is predicted to worsen in coming years (Access Economics 2008) it is vital that moves like VRI which improve efficiency be implemented if supply is to keep pace with demand.

VRI is also an important innovation because it greatly increases access to interpreters for people living in regional and remote areas. Since most Auslan interpreters are metro-based, it is often difficult to find an interpreter who is available and willing to drive long distances to attend appointments in regional/remote areas. As the client must pay the interpreter for their travel time, this makes the price of appointments



prohibitive for private clients (such as employers) and is a drain on public funds for appointments where interpreting costs are paid by the state (for example medical appointments). For these efficiency and equity issues, this submission thus strongly recommends the government continue to fund the development of VRI technology with the aim of rolling it out in all states and territories within the next five years.

**Recommendation: that funding be provided for a national roll-out of VRI technology over the next 5 years**

### 3.3.3 Communication in emergencies

In the wake of the Victorian bushfires there has been much public discussion about emergency communication. It is important that the specific needs of Deaf and hard of hearing individuals are remembered in this discussion – whether that be through ensuring alert messages are sent as text messages rather than voice recordings, using simple language that can be understood by those with low literacy skills, or providing videos online with Auslan translations of important emergency information.

In addition to information to Deaf and hard of hearing people about emergencies, there is a need to improve access to 000 for Deaf and hard of hearing people to be able to contact the service in the event of an emergency. Currently, 000 is accessible through a TTY, however few Deaf and hard of hearing people will have access to a TTY at all times. One possible solution would be for 000 to implement the necessary infrastructure to allow members of the public to send and receive text messages to 000. As most Deaf and hard of hearing people, like most Australians, have a mobile phone, this would be a practical solution from the consumer end. However, it is unknown if it would be feasible from the 000 perspective.

**Recommendation: that emergency communication options for Deaf and hard of hearing Australians be reviewed, with the aim of increasing accessibility**

### 3.3.4 Smoke alarms

In addition to verbal communication about disasters, Deaf and hard of hearing people are at risk of not receiving warnings from emergency sirens such as smoke alarms. In Australia, the risk of not hearing a smoke alarm is heightened because standard Australian smoke alarm chime at the high frequency of 3100hz (at a volume of 85dB when standing 3 meters from the alarm). As people often lose their hearing at high frequencies before low frequencies are affected, this means that even people with a mild hearing loss may fail to hear a standard Australian alarm, much less be woken up by one at night.

After extensive research, Bruck and Thomas (2007) propose that a partial solution may be to change the tone of smoke alarms sold in Australia. In their experiments they found that a 520 Hz square wave alarm (essentially a tone that starts low and becomes higher the 'whoop' sound used in some building evacuation alarms) woke over 90% of

participants with a hearing loss of 25-70dB, whereas around half slept through the standard 3100hz alarm. Other experiments by Bruck and Thomas's research team have also found the 520 Hz square wave alarm is more effective at waking people with normal hearing, people who are drunk, small children and others thought to be at risk of sleeping through a standard alarm (cf. Bruck and Thomas 2004, Bruck Thomas and Ball 2007). Similar results are also reported by Du Bois et al (1995) and make a strong case for modifying standards to mandate the use of variable frequency alarms in Australia. However, further research is needed to judge the most effective frequency range and volume that should be adopted

**Recommendation: That government investigate the effectiveness of different variable frequency alarms as a prelude to changing the standard tone of smoke alarms**

Variable frequency alarms have been shown to be effective for people with hearing losses up to 70dB. However, for those with a severe or profound hearing loss, there is a strong risk that the any auditory alarm will not be loud enough to wake the deaf person. For these people, the most effective alarms will combine a bright flashing light with a small vibrating disc placed under the pillow. The Australian Fire Authorities Council strongly recommend this combination because "there is a lack of test data to verify the energy or vibration rate to effectively wake all persons" (Cited in Willoughby 2009b:10, cf. Bruck and Thomas 2007:51). Such alarms typically retail for around \$500, however South Australia, Victoria and Queensland offer subsidy schemes that allow eligible applicants to receive alarms at minimal cost (see Willoughby 2009b:11-13 for a comparison of these schemes and eligibility criteria). In Victoria, for example, any person over 18 who is profoundly Deaf and living in private housing may receive an alarm on making a \$50 co-payment. This submission strongly recommends that similar subsidies be implemented in other states and that access to the subsidy not be not limited by means-testing.

**Recommendation: That a national smoke alarm subsidy scheme be implemented for Deaf and hard of hearing Australians that is integrated with the national smoke alarm subsidy scheme.**

### **3.3.5 Baby cry alarms**

Similar to smoke alarms, Deaf and hard of hearing parents need to purchase specialised baby cry alarms that send a visual or vibrating signal when the infant is crying. These systems typically cost upwards of \$500 and are a significant expense that a hearing person would not need to bear. In some states (for example NSW) certain parents may be eligible to receive an alarm under Aids and Equipment funding for disabled people, however there is no national consistency on this point. Given the importance of baby cry alarms for the child's well being and the parents peace of mind, this submission recommends the adoption of a consistent national subsidy scheme for Deaf and hard of hearing parents to access baby cry alarms.

As many baby cry alarms on the market are also compatible with visual and vibrating smoke alarms, it would make sense and cut costs to have a coordinated national subsidy scheme for both types of alarm. Thus people who had a smoke alarm through the scheme already would simply need to apply to receive the baby monitor extension to their alarm package as they would already have the appropriate visual and vibrating alerter.

**Recommendation: That a national baby cry alarm subsidy scheme be implemented for Deaf and hard of hearing Australians in conjunction with the national smoke alarm scheme.**

## 4 Adequacy of access to hearing services, including assessment and support services and hearing technologies

Australia has a strong public health system for providing basic hearing services, such as hearing aids for children and the elderly. However, some gaps in service provision remain. In this section we explore the related issues of access to subsidized hearing aids and hearing screenings, as well as the provision of rehabilitation services and tinnitus/reduced sound tolerance management. It should be noted that there are also a range of issues surrounding the provision of hearing services to Indigenous Australians (particularly those living in remote communities), however we have not commented on these issues as they lie outside our area of expertise. The Victorian Deaf Society would like to go on record here as stating that hearing services and hearing health in Indigenous communities have been too long neglected and that more research and innovative service provision is necessary to understand and address the unacceptably high rates of hearing loss among Indigenous Australians.

### 4.1 Subsidised aids

The Commonwealth Hearing Services Program provides world class audiology services to eligible clients. However, a great gap exists insofar as free/ subsidized services are only routinely available for children (under 21), aged pensioners and certain indigenous groups<sup>3</sup>. The cost of hearing aids and fitting is high (around \$3,000- \$5,000 per ear) and is unaffordable for many people in the non-subsidised 21-65 age group. Lack of medicare subsidies for audiology services and low rebates from private health insurers (typically only \$500, if the policy covers hearing aids at all) mean that many adults cannot afford hearing aids and either go without, or continue to use inefficient, old aids well past their use-by date.

A group that are particularly disadvantaged by the current system are adult refugees and refugee-like migrants with a hearing loss. There is a high incidence of hearing loss in this population relative to the Australian general population, resulting from war trauma, untreated ear infections and torture focused on the ears (cf. VFST 2002, Davidson et al 2004, QTMHC 2007, Harris and Telfer 2001, NHMRC 2005:21). In fact recent Vicdeaf community hearing screenings suggest rates of hearing loss may be as high as 80% for some refugee groups. These refugees and refugee-like migrants are not normally eligible for Commonwealth Hearing Services Program services, and naturally are not in a financial position to pay for aids themselves. The lack of free hearing services for adult refugees was one of the key issues to emerge from Vicdeaf's report on the situation and

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<sup>3</sup> The service is also available for a small group of adults who receive specific other Centrelink benefits, such as those with a Veterans Gold Health Card and clients referred from the Commonwealth Rehabilitation Service

needs of migrants in Victoria (Willoughby 2008) and was listed time and again as one of the top frustrations for settlement workers with Deaf and hard of hearing clients. As was noted in the report, this situation is particularly ironic when one considers the amount of money the government spends providing English classes and other settlement services to these migrants, who cannot hear enough of what is going on to benefit from the classes.

**Recommendation: that the Commonwealth Hearing Services Program be expanded through the Declared Hearing Services Legislation to include refugees and refugee-like migrants**

Whether refugees or Australian born, it is clear that poor access to appropriate hearing aids for the 21-65 age groups is creating avoidable communication barriers for these adults. This all too often results in workplace miscommunication, unemployment, disturbed family relationships, anxiety and lowered quality of life. This submission thus strongly argues that the Commonwealth Hearing Services Program should be expanded to cover people at all life stages, and that the cost of such expansion will be warranted in the benefits of improved employability and quality of life for the recipients.

**Recommendation: that the Commonwealth Hearing Services Program be expanded through the Declared Hearing Services Legislation to include people in the 21-65 age group**

## 4.2 Hearing aid supply and rehabilitation services

Australia has one of the world's highest penetration rates for hearing aid ownership – 33% of Australians with a hearing loss of 25dB or greater currently own hearing aids (Dillon 2008). However, Dillon goes on to notes that around a third of people who have hearing aids don't use them, suggesting that much of the money the OHS scheme spends issuing aids to Australians is effectively being wasted.

Dillon conducted research to try to understand why some people felt they got more benefit from their hearing aids than others. In sampling 400 OHS clients who were fitted by different providers he found a person's 'on-paper' level of hearing loss was a relatively poor predictor of the benefit they felt they received from their hearing loss, as measured by the International Outcomes Inventory for Hearing Aids . The two factors that mattered much more was the degree people self-reported having difficulty listening to conversations unaided, and the person's desire to get hearing aids. Taken together, Dillon calls these to measures the 'need' and concludes that "benefit is much more strongly determined by need than by hearing loss" (2008).

Dillon concludes in part that the OHS funding system needs to be reformed to focus more on outcomes and less on raw number of units fitted. He hopes such a scheme will

discourage current practices of some providers fitting aids to people with very mild losses (who are unlikely to benefit from aids) and will also encourage providers to focus their services on clients who self-report the greatest need for hearing aids. Vicdeaf also adds to this list that a funding model more outcomes-focused would encourage providers to invest more time and effort in rehabilitation and teaching people how to use their aids. Since 2008 the OHS has mandated providers provide basic rehabilitation services for hearing aid owners, however we still see a number of OHS clients at our (private) audiology clinics who do not know how to adjust the settings or change the batteries on their hearing aid, and who have been given very little support in learning how to listen effectively and adapt to using their hearing aids.

An outcomes-focused funding model for OHS providers might provide full cost-recovery for hearing assessment and rehabilitation services, but tie funding for the fitting of aids to reported outcomes. Further research would be required in order to establish what proportion of aid funding should be tied to outcomes, however Vicdeaf strongly endorses moving towards outcomes-based funding as a means of both reducing costs and increasing the benefit of the OHS system

**Recommendation: that the Commonwealth Hearing Services Program move to an outcomes-based model of service provision for contracted hearing aid providers.**

### 4.3 Tinnitus and reduced sound tolerance

Tinnitus (ringing in the ears) and reduced sound tolerance are significant hearing health issues affecting around one in eight people or 2.5 million Australians (Del Bio et al 2008). Although tinnitus and reduced sound tolerance can be debilitating conditions, many audiologists, ENTs and speech pathologists have a poor knowledge of the differing types, causes, and management options for these conditions and are thus ill-equipped to assist patients presenting with these conditions. Indeed in some cases they may be given outdated advice (such as to wear earplugs) which are actually considered detrimental to sound tolerance rather than helpful (Hazell 2002).

Patients presenting with tinnitus/ reduced sound are often (correctly) referred to ENT services to identify possible underlying medical causes. However, those who have no medically identifiable cause (hearing loss or other) for their tinnitus/ reduced sound tolerance are generally provided with no follow-up interventions or referrals. Indeed they may simply be told that nothing can be done and that they need to 'learn to live with it'. This can be considered 'negative counselling', which exacerbates the client's reaction to the tinnitus/sound tolerance issue, possibly worsening the effects. It is also incorrect advice, as models such as Tinnitus Retraining Therapy (Jastreboff and Hazell 1993) have been clinically proven to offer relief from tinnitus and reduced sound tolerance for a wide variety of patients (cf. Sheldrake et al 1999).

Clearly there is a need to better educate professionals in the hearing services sector about referral pathways for clients with tinnitus/ reduced sound tolerance. However, there is also an additional need for more integrated service provision, ideally with some public funding of management strategies for tinnitus/ reduced sound tolerance issues similar to that available for people requiring hearing aids. As tinnitus and reduced sound tolerance are often present alongside a hearing loss or history of noise exposure, best practice would see the establishment of integrated clinics where audiologists and speech pathologists trained in tinnitus management work in tandem to address the clients' hearing issues. This setup would provide all services in one easy location and facilitate cooperation and sharing of information between the different professionals, lead to more effective management of complex issues. It is a model that Vicdeaf is currently establishing through a centre for tinnitus and hearing health and one we would urge government to consider in any expansion of publicly-funding hearing services.

**Recommendation: That government extend public funding for hearing services to cover management of tinnitus and reduced sound tolerance.**

It may surprise the committee to learn that tinnitus is also a substantial problem for people who are Deaf or hard of hearing. For example Morris and Bergman's classic 1953 study found 73% of a sample of hard of hearing war veterans experienced tinnitus. One significant issue here is that silence has been shown to induce tinnitus in people with normal hearing (Morris and Bergman 1953, Del Bio et al 2008), and thus tinnitus patients are often advised to avoid silence and wear noise generators to minimise their tinnitus (Hazell 2002). Such advice is obviously impractical for those with a profound hearing loss. Currently, there has been little research or clinical trials around the prevalence and management of tinnitus in people with a profound hearing loss and this submission recommends this area to the committee for further research.

#### **4.4 Hearing screenings**

As many submissions have doubtless commented, there is a need in Australia for a national newborn screening program. Currently NSW, SA, ACT have universal screening programs, with Tasmania and Queensland in the process of implementing universal programs. Newborn screening is more limited in Victoria, WA and the NT, with babies born outside major metropolitan hospitals less likely to be screened. Naturally, the benefits of newborn screening are high and include maximizing the opportunities for families to access early intervention services and maximizing the child's access to language input (either spoken or signed) in the crucial early years.

While universal screening is important, to be effective it needs to have clear follow-up procedures built into the program to ensure parents are supported to act on their child's hearing loss and access early intervention services. Here the submission would

like to commend the Victorian Government's Parent Advisor for Hearing Impaired Children scheme as a model for what such services might look like. The Parent Advisor is a dedicated professional who provides home visits, support and referrals for families from diagnosis until the child enters school. The principal advantage of this system is that the advisor can be the family's primary contact across a range of issues – from arranging hearing aid fittings to helping to find a playgroup or childcare to providing information about different options for schools for the child. Another important advantage of the Parent Advisor scheme is that as a government employee the advisor is bound to give impartial advice and so makes families aware of all options available to them (e.g. whether to use spoken or sign language, whether to mainstream their child or choose a school with a deaf facility). Since many deafness organizations, not including Vicdeaf, believe passionately in either signing or spoken language as the only option worth pursuing for a deaf child, the parent advisor provides a more balanced perspective. Such a system is also likely to result in a reduction in complaints from parents that after diagnosis they just 'rang the number' the hospital gave them, and didn't realize until well after the fact that they had joined an early intervention service that had a vested interest in a particular communication method.

**Recommendation: That the Federal government work with the States to establish universal newborn hearing screening across Australia, together with appropriately resourced early intervention services**

While the need for hearing screenings for young children is widely acknowledged, Vicdeaf's work with migrant communities has also uncovered high rates of hearing loss in recently-arrived migrants, and points to the need for systematic hearing testing for this group. As mentioned above, refugees in particular are at high risk of hearing loss due to untreated ear infections, exposure to explosions and/or gunshots, and in some cases torture focussed on the ears (cf. VFST 2002, Davidson et al 2004, QTMHC 2007, Harris and Telfer 2001, NHMRC 2005:21). Migrants to Australia often wait many years to seek help for a hearing loss because they either don't realise that anything can be done for it, don't know how to contact deafness service providers or have (unfounded) fears of deportation if 'the government' finds out they have a hearing loss (Willoughby 2008). Anecdotal evidence suggests too that some hearing losses in children who are recent migrants are going undetected because teachers and other support workers attribute the child's disruptive behaviour and poor progress learning English to behavioural problems brought about by the trauma of migrating, rather than an underlying audiological condition. Vicdeaf is aware of a number of such cases, and in each instance addressing the hearing loss saw a quick turn-around in the child's behaviour and progress at school, however, without comprehensive testing of new migrants to Australia such cases will continue to go unrecognized.

**Recommendation: that universal hearing screenings be given to all new migrants to Australia, and appropriate referral networks be established to support those migrants with a hearing loss to access deafness services.**



In concluding the section on hearing screenings, the submission would like to make special mention of the need for greater screenings for aging Australian and particularly for nursing home residents. Since hearing loss is age-graded, there is a high chance nursing home residents will have a hearing loss and studies have found that up to 97% of residents have a hearing loss (Garahan et al. 1992). It may come as a surprise to the Committee then to learn that nursing home residents are not routinely screened for hearing loss, and that studies have found nursing home staff underestimate both the prevalence of hearing loss among the residents and the degree to which it impacts on residents' ability to communicate with staff and each other (Burnip and Erber 1996). Burnip and Erber note that in Australian nursing homes "Programs to manage hearing loss...are uncommon, and residents are infrequently referred for assessment of communication difficulties." (1996:40). They note that 140 nursing home staff they surveyed often seemed to misattribute communication difficulties they had with residents to general cognitive decline (rather than a hearing loss), and thus view them as unavoidable and untreatable consequences of aging. Attending to this unmet need could not only enhance residents' quality of life, but may also help decrease the chance of the resident developing dementia.

The relationship between hearing loss and dementia is still poorly understood by scientists, however what has been shown is that dementia patients have a much higher incidence of hearing impairment than corresponding members of the general population. (Uhlmann et al 1989). Uhlmann et al go on to hypothesise that this link occurs because hearing impairment contributes to cognitive dysfunction in older adults (for example because it reduces opportunity for conversation or other stimulation). As Chartrand (2005) further notes, an undetected hearing loss may also lead to the misdiagnosis of Alzheimer's Disease, since tests of cognitive function are usually administered verbally. It is thus best practice to test for a hearing loss before intervention for dementia is undertaken and to support people suffering from dementia to manage any underlying hearing loss as a possible step to stem the advancement of cognitive degeneration.

**Recommendation: That the government work with nursing home providers to provide regular hearing screenings for residents and training for staff in communicating with residents with a hearing loss.**

## 5 Adequacy of current hearing health and research programs, including education and awareness programs

As noted in chapter one of this submission there is a clear need of a national hearing health campaign, with information on noise-related deafness particularly needed for the sub-groups of farmers, young men, and owners of MP3 players. Currently, a number of government and community groups are running small campaigns, however, a united national campaign would be more effective and more far-reaching.

The Australian government deserves praise for the significant funding it has allocated to research surrounding hearing loss, for example through the Hearing CRC and the ARC and NHMRC grant schemes. This funding has allowed Australia to become a world leader in medical/ technological research relating to hearing loss. However, more niche research focusing on issues surrounding hearing loss in particular communities (e.g. Aboriginal groups, migrants, those who suffer a sudden hearing loss) has not received as much government funding and attention. As this submission has pointed out, the special needs of these groups are at risk of being overlooked by research and programs focused exclusively on the general population.

Within the Australian disability sector in general, there is an issue that government research funding is primarily given for academic research with limited input from service providers. In many cases (such as the ARC), service providers would only be eligible to compete for funding if they partner with a university, and the application process is long and arduous enough to act as a deterrent to all but the most committed applicants. This is problematic, because service providers are familiar with emerging issues on the ground in a way that academics in universities generally are not, and means there are limited resources available to 'nip problems in the bud' through innovative action research projects.

The solution to this problem that The Victorian Deaf Society would like to propose is for a small pool of government funding be set aside specifically for funding action research projects undertaken by service providers. This funding could be limited to grants of around \$30,000 and would allow organizations to undertake research to better understand a problem, then work with stakeholders to implement and evaluate possible solutions and provide a model of best practice to other organizations. The Victorian Deaf Society has recently completed one such project on issues affecting deaf people from migrant backgrounds in Victoria (funded through the Victorian Multicultural Commission) and is commencing another looking at access to support services (including residential aged care) for older signing Deaf people (funded by *Ian Rollo Currie Trust*). We would be happy to meet with government representatives to explain these projects in more detail, their findings and the important improvements in service provision they have generated if that would be helpful. Through conversations with other Deaf Societies and Deaf Australia we are aware of countless other small projects that could

be undertaken to significantly improve the situation of marginalized groups within the Deaf and hard of hearing population, however up until now the big picture focus of research and program funding has made it very difficult to secure funding for these projects

**Recommendation: that annually a pool of research funding be set aside to fund action research projects undertaken by service providers**

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