

The Senate

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## Community Affairs References Committee

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Hear Us: Inquiry into Hearing Health in  
Australia

May 2010

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## Abbreviations

ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
ANZPOD	Australian and New Zealand Parents of Deaf Children
AOM	Acute otitis media
ARDS	Aboriginal Resource and Development Services
ASCC	Australian Safety and Compensation Council
ASOHNS	Australian Society of Otolaryngology Head and Neck Surgeons
BSA	<i>Broadcasting Services Act 1992</i>
CALD	culturally and linguistically diverse
CMV	Cytomegalovirus
COAG	Council of Australian Governments
the committee	Community Affairs References Committee
CRC	Cooperative Research Centre
CRS	Congenital Rubella Syndrome
CSO	Community Service Obligation
CSOM	Chronic suppurative otitis media
dB	Decibels
deafblind	people who are deaf and blind
DIISR	Department of Innovation, Industry, Science and Research
DOHA	Department of Health and Ageing
DVA	Department of Veterans Affairs

Ear, Nose and Throat	ENT
ESL	English as a Second Language
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
FASD	Foetal Alcohol Spectrum Disorder
GP	General Practitioner
HCIA	Hearing Care Industry Association
HIDKON	Hearing Impaired and Deaf Kindred Organisation Network
HLPP	Hearing Loss Prevention Program
Hz	Hertz
LOCHI	Longitudinal Outcomes of Children with Hearing Impairment
NAAJA	Northern Australian Aboriginal Justice Association
NABS	National Auslan Interpreter Booking and Payment Service
NAL	National Acoustic Laboratory
NEDA	National Ethnic Disability Alliance
NHEWS	National Hazard Exposure Worker Surveillance
NHMRC	National Health and Medical Research Council
NIHL	Noise induced hearing loss
NSA	National Seniors Association
NSW	New South Wales
NT	Northern Territory
NT DET	Northern Territory Department of Education and Training
OATSIH	Office for Aboriginal and Torres Strait Islander Health
OHS	Office of Hearing Services

OME	Otitis media with effusion
ONIHL	Occupational noise induced hearing loss
PATS	Patient Assisted Travel Scheme
RAOM	Recurrent acute otitis media
RHL	Recreational Hearing Loss
SA	South Australia
SARRAH	Services for Australian Rural and Remote Allied Health
SHHH	Self Help for Hard of Hearing People
WA	Western Australia



## EXECUTIVE SUMMARY

One in six Australians suffers from some degree of hearing loss. By 2050 this is forecast to grow to one Australian in four. Hearing health is a mainstream health issue which touches the lives of most Australians in one way or another, yet as a public health issue it is not ranked as a national health priority. Australians with hearing loss must live with the paradox that their disability is so prevalent in our community, and yet suffers from a generally low level of awareness and understanding.

One message above all others came through from the evidence before this inquiry, and this message forms the title of this report: Hear Us. It is the message to a hearing society from people with a hearing loss who live the terrible isolation and frustration that is often their daily lot. It is the message to governments and funding bodies from the many volunteer support and representative groups who advocate to improve the lives of people with a hearing impairment. It is the message to program administrators from hearing health practitioners working within systems that need an overhaul. It is the message from researchers striving to advance our understanding of the causes of hearing loss, and the technologies that can improve the lives of future generations. It is the message from Indigenous Australians, for many of whom hearing loss is so pervasive it has become a normal and accepted part of growing up.

The forecast increased prevalence of hearing loss among Australians is largely driven by our ageing population. However over a third of all people with hearing loss acquired their impairment through preventable means. Workplace hearing damage is often associated with industrial work sites where people work with noisy machinery. A large proportion of rural workers and farmers suffer from acquired hearing loss, though the prevalence is falling among younger farmers.

Hearing loss can also be caused by diseases and disorders, including middle ear infections, growths in the ear canal and Meniere's Disease.

People exposed to acoustic shock can also suffer permanent hearing damage. The committee heard that armed services people who have been exposed to artillery explosions have been susceptible to acoustic shock in the past, as have call centre workers experiencing unexpected loud noise through telephone headsets.

There is a widespread concern in the community about the effects of personal music players on hearing loss, especially among young people. Whilst the proof that personal music players cause permanent hearing loss is ambiguous for now, expert opinion is that the potential is there if devices are played loud enough and over a long enough period of time.

The costs of hearing loss to Australia were estimated at \$11.75 billion in 2005, which represented 1.4 per cent of Australia's then Gross Domestic Product. The largest element of this cost, at over half the total, was lost wages and productivity among

people with a hearing loss. The value to the nation of retaining or re-engaging people with a hearing loss in the workforce is thus huge.

The committee heard that hearing loss can affect people's physical health and emotional wellbeing. The economic cost of low workforce participation has been noted, but at the core of this lies the personal distress for individuals who stop working in their forties because they can no longer hear, or who work in jobs far below their capacity because their employers do not support them as well as they might.

For children who are diagnosed with hearing loss within the first six months of life, the chances are good that, with appropriate intervention and support, they will acquire good communication skills and be well equipped to engage with the world. For children whose hearing loss is not picked up at birth, or who acquire hearing loss later in life – a much greater number – their chances are more uncertain. Much will depend on when they are diagnosed, the choices their parents make, and the support they receive from school and from healthcare professionals.

The single issue most raised by submitters to the inquiry was that of eligibility to Australian Hearing services, and especially the cut off age of 21 years. At a time in their lives when they are studying, or not yet established in their careers, young Australians find themselves without the excellent care they have received to date, and often without the means to replace that care, or their hearing devices, in the private sector.

The costs of hearing loss to individual people can be very high, particularly for those who fall outside the eligibility criteria for Office of Hearing Services program support. Expenses include hearing aids at between \$3,000 and \$10,000 a pair, cochlear implant speech processors at between \$8,000 and \$12,000, batteries and maintenance, and special assistive devices such as flashing fire alarms and doorbells. Hearing aids and processors can need replacing every three to five years.

The committee heard from many submitters that the level of cover available for hearing devices from their private health insurers was minimal.

The cost of hearing aids has generated the establishment of hearing aid banks in most states and territories. These facilities recondition second hand hearing aids and make them available to people who cannot afford new aids.

Hearing assessment and support services are more difficult to access in regional and remote parts of Australia. Hearing care providers have trouble attracting and retaining qualified practitioners in these areas. People who need to travel to larger centres for audiological services are not eligible for Patient Assisted Travel Schemes.

Universal screening for newborns, a Council of Australian Governments initiative due for implementation by the end of 2010, was widely applauded by submitters to the inquiry. However the access to hearing screening for school aged children is more patchy, even though the benefits to the child and to society of early diagnosis,

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intervention and ongoing engagement with hearing health professionals are well known.

There is a level of concern among consumers of hearing health services that some in the hearing industry are more interested in selling hearing aids than improving the lives of the hearing impaired. Representatives of the private hearing aid industry told the committee that unless they sell top-ups to government hearing aid vouchers, their businesses are not financially viable. The Department of Health and Ageing has amended eligibility for its voucher program so that it is better targeted toward those with the highest need.

Around 24 per cent of all Australians who would benefit from a hearing aid have one, which is comparable with international standards. There is an issue around the extent to which people use these hearing aids, however, with up to 30 per cent of hearing aids sitting in the bedside drawer unused, or not used as much as they could be.

Cochlear implants have been a great innovation for many people with hearing loss, with take-up expected to grow as the technology improves and widens user eligibility. The cost of the clinical aspects of implants are met from public funds, but for many people the cost of replacing speech processors must be met privately.

The committee heard about the research currently underway in hearing health, and about the gaps in the research field. Many researchers called for a national database that can facilitate follow up from the national newborn screening initiative. More research is needed around: the effects of recreational noise on permanent hearing loss; Occupational Noise Induced Hearing Loss; the relationship between health and hearing impairment; the effects of ototoxicity; and Meniere's Disease.

There is a place in Australia for a large-scale hearing health awareness-raising and education campaign. Such a campaign could have three aims: to target high-risk groups about preventable hearing loss; raise the general level of community awareness about hearing loss issues; and promote access to support and resources for people with a hearing loss.

There is a crisis in Indigenous ear and hearing health in Australia. Indigenous people suffer ear disease and hearing loss at up to ten times the rate of non-Indigenous Australians, and arguably the highest rate of any people in the world. The rate of middle ear infection (otitis media) among Indigenous Australians far exceeds the level that the World Health Organisation describes as 'a massive public health problem...which needs urgent attention'.

The root causes of such a high prevalence of otitis media are the home environmental conditions associated with poverty – overcrowded housing, poor nutrition, poor sanitation and passive smoking.

The consequences of early onset hearing loss can be devastating for Indigenous Australians. Their capacity to access education – arguably the best way out of the poverty cycle - is limited. The classroom facilities are often inadequate. Teachers and

school leadership may be untrained to manage hearing loss in the classroom, or even unaware of the scale of the problem among Indigenous children. The momentum to demand improvements is slowed by a widespread acceptance among families and communities that chronic ear disease among Indigenous children is a normal part of growing up.

The extent of hearing loss among Indigenous Australians in custody is unknown, though informed estimates provided to the committee suggest that the incidence may be very high indeed. The implications for Indigenous Australians who may have been convicted and incarcerated with an undiagnosed hearing loss could be most profound.

Evidence was presented to the committee about a relationship between hearing impairment and a person's engagement with the criminal justice system. For Indigenous people with a hearing loss, whose first language - if they have one - is not English, this relationship can be disastrous. Engagement between Indigenous people with a hearing loss and police can spiral into confrontation, as police mistake deafness for insolence, or for cultural or language communication difficulties.

## Inquiry recommendations by theme

This report, along with its recommendations, is structured around the terms of reference for the inquiry. These terms of reference provide a suitable framework for the conduct of the inquiry, and for presenting its findings. However the recommendations of the inquiry, when taken as a whole, can be usefully grouped into categories which reflect the priorities for hearing health as this committee sees them: education, criminal justice, access and services, awareness and research, and hearing loss among young people. The committee believes it is useful to re-present the inquiry recommendations here under these categories.

### ***Access and services***

#### *Recommendation 2 (chapter four)*

The committee recommends that the Department of Education, Employment and Workplace Relations engage with state and territory jurisdictions, and with employment and hearing loss peak bodies, to develop a 10 year strategy to better support, engage and retain hearing impaired Australians in the workforce. The strategy should be made publicly available, and detail annual performance targets and the level of resources committed to achieving them.

#### *Recommendation 4 (chapter five)*

The committee recommends that eligibility for the Australian Government Hearing Services Voucher Program be extended to include all Australians, subject to eligibility and a means test.

#### *Recommendation 5 (chapter five)*

The committee recommends that former child clients of Australian Hearing remain eligible for Australian Hearing support until the age of 25. This eligibility is to be

subject to a means test. Former child clients of Australian Hearing who do not meet the means test are to have the option to access Australian Hearing support on a fee-for-service basis until the age of 25.

*Recommendation 6 (chapter five)*

The committee recommends that state and territory governments expand eligibility for Patient Assisted Travel Schemes to include support for people accessing audiological services.

*Recommendation 7 (chapter five)*

The committee recommends that the Commonwealth provide funding to expand services for hearing impaired children in rural and remote areas through e-technology based program such as that developed by the Royal Institute for Deaf and Blind Children.

*Recommendation 9 (chapter five)*

The committee recommends that the Audiology Society of Australia develop and make available to its members resources and professional development that promotes better understanding about the impact a diagnosis of hearing loss can have on people, and which provides resources and techniques for counselling and supporting people at the time of diagnosis.

*Recommendation 11 (chapter five)*

The committee recommends that the Office of Hearing Services engage with representatives of the hearing aid manufacturing and distribution industry, private providers of hearing health services, and hearing health consumers to investigate:

- (a) the relationship between the voucher program, top-ups and the financial viability of private health services; and
- (b) whether extending the capacity to audiologists to bulk bill Medicare directly for clinical services would have any impact on the financial viability of private health services (i.e. would it ameliorate the need to push 'top-ups' to stay viable?); and
- (c) that the findings of these investigations be made publicly available for the consideration of all hearing health stakeholders.

*Recommendation 12 (chapter five)*

The committee recommends that the Office of Hearing Services review its policy with regard to the replacement of damaged, lost or obsolete cochlear implant speech processors for eligible clients over 21 years of age, and if possible align it with the replacement policy for eligible clients less than 21 years of age.

*Recommendation 13 (chapter five)*

The committee recommends that the public counters in all government service shopfronts be accessible to people with a hearing impairment through the provision of hearing loop technology. The committee recommends that the Office of Hearing Services coordinate a project which sets targets toward that end for all government agencies, at all levels of government, and that these be publicly reported upon.

*Recommendation 26 (chapter eight)*

The committee recommends that the Department of Health and Ageing make the changes to Medicare necessary to enable specialists and practitioners to receive public funding support for ear health services provided remotely via ear telehealth.

***Education and learning****Recommendation 3 (chapter four)*

The committee recommends that the Department of Education, Employment and Workplace Relations engages with state and territory education systems, higher education providers of training for teachers of children with hearing impairment, and major stakeholders (including the Royal Institute for Deaf and Blind Children and parent representative bodies), to develop and implement an agreed national qualification standard for teachers of children with hearing impairment. This standard is to be benchmarked against international best practice.

*Recommendation 8 (chapter five)*

The committee recommends that the Council of Australian Governments extends its commitment for universal newborn hearing screening to include a hearing screening of all children on commencement of their first year of compulsory schooling. Given the crisis in ear health among Indigenous Australians, the committee believes urgent priority should be given to hearing screenings and follow up for all Indigenous children from remote communities on commencement of school.

*Recommendation 10 (chapter five)*

The committee recommends that education providers develop professional standards for interpreters working in educational environments. These standards should be based on existing standards, such as the National Accreditation Authority for Translators and Interpreters paraprofessional level accreditation, or the National Auslan Interpreter Booking and Payment Service / Australian Sign Language Interpreter's Association Deaf Relay Certification.

*Recommendation 21 (chapter eight)*

The committee recommends that the Department of Education, Employment and Workplace Relations and Department of Health and Ageing jointly establish a task force to work across portfolios and jurisdictions on a plan to systemically and sustainably address the educational needs of hearing impaired Indigenous Australian children.

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*Recommendation 22 (chapter eight)*

The committee recommends that Australian Hearing be enabled under the *Australian Hearing Services Act 1991* to supply and maintain sound field systems for classrooms in all new classrooms, and in all existing classrooms where there is a significant population of Indigenous children.

*Recommendation 23 (chapter eight)*

The committee recommends that the Department of Health and Ageing work with the Department of Education, Employment and Workplace Relations to develop a program with Australian Hearing to:

- (a) supply and maintain sound field amplification systems and acoustic conditioning in all new classrooms, and in all existing classrooms where there is a significant population of Indigenous children; and
- (b) report publicly on where sound field amplification systems and acoustic conditioning are installed to assist parents in making informed choices about schools for their children.

*Recommendation 24 (chapter eight)*

The committee recommends that education providers ensure that teacher induction programs for teachers posted to schools in Indigenous communities emphasise the likelihood that hearing impairment among their students will be very high. Induction programs for these teachers must include training on the effects of hearing health on education, and effective, evidence-based teaching strategies to manage classrooms where a majority of children are hearing impaired.

*Recommendation 25 (chapter eight)*

The committee recommends that the Department of Education, Employment and Workplace Relations work with jurisdictions to develop accredited professional development programs for teachers and school leaders on the effects of hearing health on education, and effective evidence-based teaching strategies to manage classrooms with hearing impaired children.

***Awareness-raising and research****Recommendation 14 (chapter six)*

The committee recommends that the national data set and register for neonatal hearing screening, currently under development by the Neonatal Hearing Screening Working Group on behalf of the Australian Health Minister's Advisory Council, be expanded to include a national database which can:

- (a) track children through neonatal hearing screening, diagnosis and intervention;
- (b) record and report cognitive, linguistic, social and emotional development outcomes of children diagnosed at birth with a hearing loss; and

- (c) be expanded in future years to track all children diagnosed with a hearing impairment later in life.

*Recommendation 16 (chapter six)*

The committee recommends that Australian Governments continue to prioritise and fund research into occupational noise exposure. The focus of research should be informed by the results of the '*Getting heard: effective prevention of hazardous occupational noise*' project, currently being undertaken by Safe Work Australia, and include investigation into the effectiveness of current legislation in limiting occupational noise exposure. Research should continue to develop understanding about the design of workplace equipment, hearing protection, and the long-term effects of acoustic shock and acoustic trauma.

*Recommendation 17 (chapter six)*

The committee recommends that Australian Governments prioritise and fund research into the reasons for the under use of hearing aids, and develop practicable strategies for hearing health practitioners to help overcome the under use in the community.

*Recommendation 18 (chapter six)*

The committee recommends that the Department of Health and Ageing work closely with Safe Work Australia to investigate the relationships between ototoxic substances and hearing impairment, and the possible implications for workplace safety practices.

*Recommendation 19 (chapter six)*

The committee recommends that the Department of Health and Ageing works with Meniere's Australia to identify opportunities for research into the prevalence of the Meniere's disease in Australia, rates of diagnosis, options for treatment and personal management, and the socio-economic impact of the disease, including on the employment and lifestyles of those affected.

*Recommendation 20 (chapter seven)*

The committee recommends that the Department of Health and Ageing provides funding for Australian Hearing to develop, in close consultation with major hearing health stakeholders, a national hearing health awareness and prevention education campaign. This campaign should have three dimensions. It should:

- (a) target those at highest risk of acquired hearing loss (including employers and employees in high-risk industries, farmers and rural workers, and young people) to improve their knowledge about hearing health and change risky behaviours;
- (b) raise the level of awareness about hearing health issues among the broader Australian population to help de-stigmatise hearing loss; and
- (c) promote access to support services for people who are hearing impaired.

*Recommendation 29 (chapter eight)*

The committee recommends that the Department of Health and Ageing:

- (a) provide funding and resources to manage a national biennial Indigenous ear health conference; and
- (b) make the outcomes of those conferences publicly available to assist researchers and practitioners in the field of hearing health.

*Recommendation 30 (chapter eight)*

The committee recommends that the Department of Health and Ageing work with state and territory health agencies to provide funding to support the continuation, promotion and expansion of the Ear Health Infonet.

**Criminal Justice***Recommendation 27 (chapter eight)*

The committee recommends that the Department of Health and Ageing work closely with state and territory jurisdictions to develop and implement a national plan which:

- (a) provides resources to conduct hearing assessments for all Australians serving custodial sentences who have never received such an assessment, including youths in juvenile detention; and
- (b) facilitates prisoner access to those hearing assessment; and
- (c) encourages a high level of participation in those hearing assessments; and
- (d) makes the findings of the hearing assessments available to the public (within privacy considerations).

*Recommendation 28 (chapter eight)*

The committee recommends that the relevant ombudsman in each state and territory conduct an audit of Australians serving custodial sentences, including youths in juvenile detention, and consider whether undiagnosed hearing impairment may have resulted in a miscarriage of justice and led to any unsafe convictions.

*Recommendation 31 (chapter eight)*

The committee recommends that guidelines for police interrogation of Indigenous Australians in each state and territory be amended to include a requirement that a hearing assessment be conducted on any Indigenous person who is having communication difficulties, irrespective of whether police officers consider that the communication difficulties are arising from language and cross-cultural issues.

*Recommendation 32 (chapter eight)*

The committee recommends that the National Judicial College of Australia work with state and territory jurisdictions to develop and deliver accredited professional development programs for judges, lawyers, police, correctional officers and court

officials on the effects of hearing impairment on Indigenous engagement with the criminal justice system, and effective evidence-based techniques for engaging effectively with people with a hearing impairment in courtroom environments.

*Recommendation 33 (chapter eight)*

The committee recommends that hearing loops are available in interview rooms and public counters of all police stations, and in all courtrooms, and that loop receiver devices be made available for people without hearing aids.

*Recommendation 34 (chapter eight)*

The committee recommends that correctional facilities in which greater than 10 per cent of the population is Indigenous review their facilities and practices, and improve them so that the needs of hearing impaired prisoners are met.

***Recreational hearing loss among young people***

*Recommendation 1 (chapter two)*

The committee recommends that the Department of Health and Ageing work with the appropriate agencies and authorities to devise recreational noise safety regulations for entertainment venues. Specifically, where music is expected to be louder than a recommended safe level, that the venues be required to:

- (a) post prominent notices warning patrons that the noise level at that venue may be loud enough to cause hearing damage; and
- (b) make ear plugs freely available to all patrons.

*Recommendation 15 (chapter six)*

The committee recommends that the Australian Government fund the National Acoustic Laboratory to undertake longitudinal research into the long-term impacts of recreational noise, particularly exposure to personal music players.

# CHAPTER 1

## INTRODUCTION

### **Terms of reference**

1.1 On 10 September 2009 the Senate referred the following matter to the Senate Community Affairs References Committee (the committee) for inquiry and report by the last sitting day in February 2010 (subsequently extended to 13 May 2010):

Hearing Health in Australia with particular reference to:

- (a) the extent, causes and costs of hearing impairment in Australia;
- (b) the implications of hearing impairment for individuals and the community;
- (c) the adequacy of access to hearing services, including assessment and support services, and hearing technologies;
- (d) the adequacy of current hearing health and research programs, including education and awareness programs; and
- (e) specific issues affecting Indigenous communities.

### **Conduct of the inquiry**

1.2 The inquiry was advertised in *The Australian* and on the committee's website, inviting submissions from interested parties. The committee also wrote to relevant organisations and individuals notifying them of the inquiry and inviting submissions. Due to indications of considerable interest in the reference subject matter, the committee undertook to accept submissions throughout the course of the inquiry.

1.3 The committee received 184 public submissions, which were made available through the committee website.<sup>1</sup> A list of individuals and organisations that made submissions or provided other information authorised for publication by the committee is contained in Appendix 1.

1.4 The committee heard evidence in public at Canberra on 12 October 2009 and 19 March 2010; Sydney on 13 October and 11 November 2009; Brisbane on 7 December 2009; Melbourne on 8 December 2009; Perth on 9 December 2009; Darwin on 16 February 2010; and Alice Springs on 18 February 2010.

1.5 A list of the witnesses who appeared at public hearings and details of the committee's visits and inspections is at Appendix 2.

1 Submissions can be viewed at

[http://www.aph.gov.au/Senate/committee/clac\\_ctte/hearing\\_health/submissions/sublist.htm](http://www.aph.gov.au/Senate/committee/clac_ctte/hearing_health/submissions/sublist.htm)

## Background

1.6 For some time, the committee has considered that there was a need for a review of hearing services in Australia. The publication of the Access Economics report, *Listen Hear! The economic impact and cost of hearing loss in Australia* in 2006, as well as personal representations by a number of hearing impaired people, provided the impetus for the inquiry.

1.7 The committee initially considered that it would meet its original tabling date of February 2010. However as the inquiry progressed it became clear that there are many issues facing hearing impaired people which required further consideration by the committee. The committee received an extension to its tabling date from the Senate which has allowed it to consider the evidence provided more fully.

## Structure of the report

1.8 The report is structured along the lines suggested by the terms of reference. Chapter two examines the extent and causes of hearing loss in Australia. Chapter three explores the costs of hearing impairment to Australia, and chapter four looks at the implications of hearing loss for individuals and for communities. Chapter five examines the many, sometimes complex, issues surrounding access to hearing assessment and support services, and to hearing technologies. Chapter six examines existing hearing health research programs, and chapter seven considers what the evidence suggested about future hearing health education and awareness campaigns. Lastly, chapter eight examines the particular hearing health issues faced by Indigenous Australians.

1.9 The committee makes its comments at the end of each chapter, before setting out its recommendations.

## *Listen Hear!*

1.10 The committee has been fortunate to have access to *Listen Hear!* the 2006 report by Access Economics on the economic impact of hearing loss in Australia. This work was commissioned by the HEARING Cooperative Research Centre (CRC) and the Victorian Deaf Society to quantify the complex economic impact of hearing loss for the year 2005.<sup>2</sup> As the only study of its kind, *Listen Hear!* is a valuable resource for the committee and for hearing health policy makers. That it is highly regarded is reflected by the fact that nearly all submissions referred to its findings when discussing the costs of hearing health in Australia.

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2 Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia* (February 2006), p. 5.

## Acknowledgements

1.11 During public hearings the committee used the services of Auslan and tactile interpreters as well as captioning services. The committee would like to thank: Tanya Miller, Kylie Scott, Kerrie Lakeman, Gerry Shearim and Denise Lamont (Sydney); Judy Bonser and Peter Bonser (Brisbane); Dennis Witcombe, Sarah Howell, Meredith Bartlett, Kathy Leibek (Melbourne); and Elizabeth Temple (Darwin) for their assistance.

1.12 The committee visited the Royal Institute for Deaf and Blind Children, Cochlear Limited and the National Acoustics Laboratory on 12 November 2009. For taking time out of their busy days, and for their generous hospitality, the committee would like to thank John Berryman, Greg Leigh and Jan North of the Royal Institute for Deaf and Blind Children; Mark Salmon, Neville Mitchell and Georgina Sanderson from Cochlear Limited; and Harvey Dillon and Margaret Dewberry of National Acoustics Laboratory.

1.13 The committee would like to thank the many individuals and organisations who provided submissions to the inquiry. The submissions from organisations and stakeholder groups were of a high calibre, and underscored the strength of their commitment to providing high quality services and support to people with hearing impairment. The submissions from individuals often came directly from the heart, and canvassed the many day-to-day issues encountered by people with hearing impairment in Australia.

1.14 The Department of Health and Ageing provided valuable support to the committee during the conduct of the inquiry. Departmental officers provided background briefings to the committee secretariat on a range of hearing health issues, which contributed greatly to the clarity and accuracy of this report. The committee would like to sincerely thank the department for its professionalism, support and cooperation.

1.15 Finally, the committee wishes to express its appreciation for the work of the Senate Community Affairs Committee secretariat throughout this inquiry. The secretariat consistently provided professional, high quality support to the committee during the extensive hearings process, and during the preparation of this report.

## Note on references

1.16 References to the committee Hansard from 2010 may relate to the proof Hansard: page numbers may vary between the proof and the official Hansard transcript.



# CHAPTER 2

## THE EXTENT AND CAUSES OF HEARING IMPAIRMENT IN AUSTRALIA

One in six Australians is affected by hearing loss...With an ageing population, [this] is expected to increase to one in four...by 2050.

Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*,  
(February 2006), p. 5.

The most common causes of hearing loss are ageing and excessive exposure to loud sounds. The effects of age and noise exposure are additive so that noise exposure may cause hearing loss in middle age that would not otherwise occur until old age.

Department of Health and Ageing, *Submission 54*, [p. 1].

### **Introduction**

2.1 The increasing prevalence of hearing loss is due largely to an ageing population, although there are a range of factors and behaviours among other sectors of the population which will have a flow-on effect on people's hearing in later life. These factors will be canvassed in this chapter.

2.2 This chapter will consider the causes of hearing loss, aspects of the severity and impacts of different levels of hearing loss, and the current and projected prevalence of hearing loss in Australia.

2.3 The committee drew on evidence from hearing loss experts and from people with hearing loss themselves. In addition, Access Economics' report *Listen Hear!* was of great value to the committee in considering the issues raised in this chapter.

### **Severity of hearing impairment**

2.4 This section summarises some of the language and concepts around the severity of hearing loss. This will assist the reader to understand the evidence which follows about prevalence and causes of hearing loss.

2.5 There are a range of facets to hearing loss, including:

- decreased audibility, where people with hearing impairment do not hear some sounds at all, depending on the severity of hearing loss. As a consequence, a person may be unable to understand speech, as some essential parts are inaudible;
- decreased dynamic range. The dynamic range of an ear is the level of difference between the threshold of audible sound and the threshold of

- loudness discomfort. A person with a hearing impairment will have a smaller dynamic range than that of a person with normal hearing;
- decreased frequency resolution. A person with hearing impairment may have difficulty separating sounds of different frequencies. A person with normal hearing is able to separate speech from background noise; however a hearing impaired person is unable to differentiate between speech and noise where the frequencies are close together. This can also affect the intelligibility of speech in some cases; and
  - decreased temporal resolution. Intense sounds can mask weaker sounds that immediately precede or follow them, and inability to perceive the weaker sounds adversely affects speech intelligibility. The ability to hear weak sounds during fluctuating background noise gradually decreases as hearing loss worsens.<sup>1</sup>

In combination, these deficits can cause a reduction in intelligibility of speech for a hearing impaired person compared to a normal-hearing person in the same situation.

2.6 Hearing levels are determined by testing the range of sounds that can be heard and how softly one can hear such sounds. The range of sounds is measured in hertz (Hz) or waves per second and the intensity or strength of sound is measured in terms of a scale of decibels (dB).<sup>2</sup>

2.7 Figure 2.1 is a visual representation which equates different decibel levels with common noises.

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1 Department of Health and Ageing (DOHA), *Submission 54*, p. 15.

2 DOHA, *Submission 54*, p. 15.

Figure 2.1: Approximate sound levels (dB) for common types of noise exposure

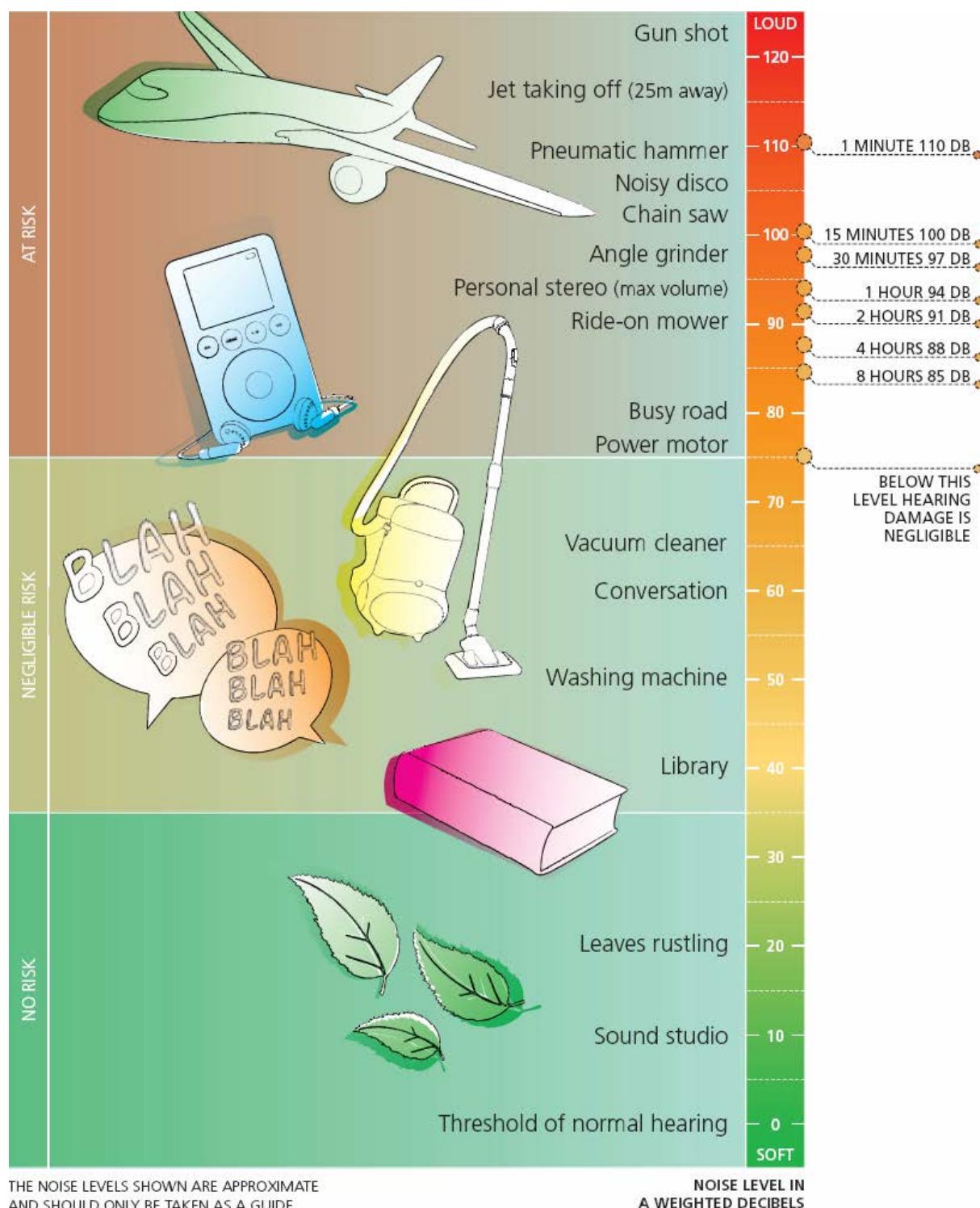


Figure by Australian Hearing, provided in DOHA, *Submission 54*, p. 16.

2.8 The severity of hearing loss is categorised as mild, moderate, severe, or profound, depending on how loud a sound has to be before a person can hear it. The severity of hearing loss is categorised differently for different age groups.<sup>3</sup>

*Table 2.1: Severity of hearing loss by decibel range and age*

Severity of hearing loss	Decibel (dB) range (< 15 years)	Decibel (dB) range ( $\geq 15$ years)
Mild	0-30dB	$\geq 25$ dB and <45dB
Moderate	31-60dB	$\leq 45$ dB and <65dB
Severe	61-90dB	$\geq 65$ dB
Profound	$\geq 91$ dB	

Source: Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*, (February 2006), p. 5.

2.9 Hearing loss is measured using either subjective tests, such as audiometric testing, or objective tests, which measure a physiological response from the individual. Newborn hearing tests are objective tests which use an auditory brain stem response technique to an acoustic stimulus.<sup>4</sup>

## **The extent of hearing impairment in Australia**

2.10 Access Economics reported extensive data on the prevalence of hearing loss amongst Australians. In 2005 around 3.55 million Australians had some hearing loss. Of these, some 99.7 per cent were aged 15 years or older.<sup>5</sup>

### ***Prevalence of hearing impairment in children***

2.11 Australian Hearing submitted that 'between nine and 12 children per 10,000 live births will be born with a moderate or greater hearing loss in both ears'. In addition, three to four children per 10,000 live births will be born with moderate hearing loss, and a further 23 per 10,000 will acquire a hearing loss that requires hearing aids by the age of 17.<sup>6</sup> This evidence suggests that 39 children in 10,000 will have some form of hearing loss by the age of 17.

2.12 Access Economics reported that the estimated severity of hearing loss in the Australian child population is currently 36.7 per cent mild, 38.3 per cent moderate, 13.3 per cent severe and 11.7 per cent profound, as seen in Figure 2.2 below.<sup>7</sup>

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3 DOHA, *Submission 54*, p. 15.

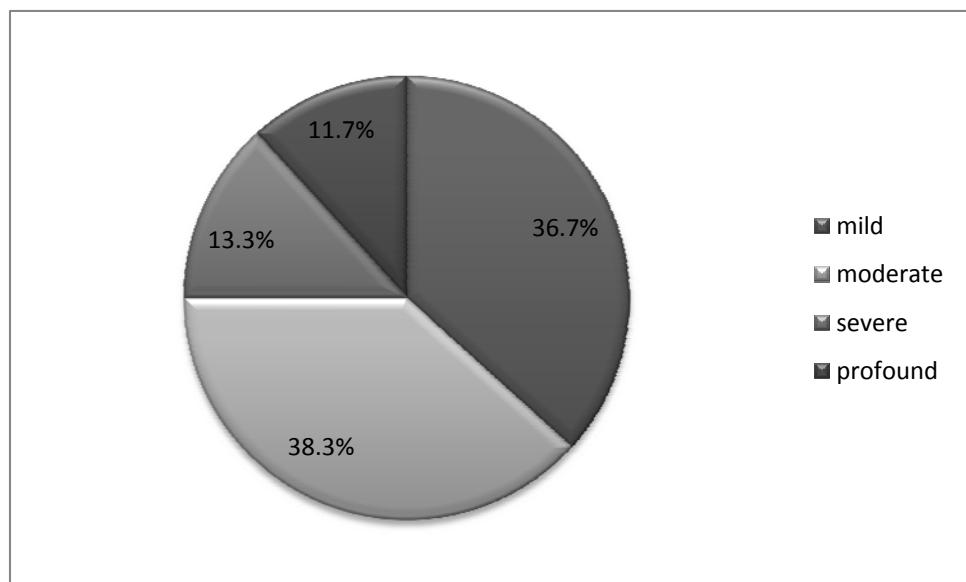
4 Access Economics, 2006, pp 12-13.

5 Access Economics, 2006, p. 33.

6 Australian Hearing, *Submission 38*, p. 7.

7 Access Economics, 2006, p. 30.

*Figure 2.2: Hearing loss in Australian children by severity, 2005 (n=10,268)*



Source: Access Economics, 2006, p. 30.

2.13 The Hear and Say Centre noted in their submission that, according to the World Health Organisation, hearing loss is the most common disability in new born children worldwide.<sup>8</sup> The Victorian Deaf Society submitted that more children are having their hearing impairment diagnosed, but fewer children are being found to have a severe-profound hearing loss. This is attributed to medical advances and more sensitive testing.<sup>9</sup>

2.14 Many submitters noted that hearing impairment in Indigenous children is particularly high. This issue is discussed in detail at chapter eight of this report.

#### ***Prevalence of hearing impairment in adults***

2.15 Access Economics reported that amongst adults, the prevalence of hearing loss varies over age groups. Table 2.2 is a summary of hearing loss among adults by age.

8 Hear and Say Centre, *Submission 153*, p. 2.

9 Victorian Deaf Society, *Submission 147*, p. 4.

*Table 2.2: Hearing loss prevalence by age group*

<b>Age group</b>	<b>Hearing loss as a proportion of all people in each age group.</b>
15 to 50 years	5 %
51 to 60 years	29 %
61 to 70 years	58 %
71 years and older	74 %

Source: Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*, (February 2006), p. 5.

2.16 The committee heard that hearing loss was more prevalent in men than women due to their higher exposure to workplace noise, though the gap reduces as people get older.<sup>10</sup> Sixty per cent of adults with a hearing loss are male, and approximately half of these men are of working age (i.e. 15 to 64 years).<sup>11</sup> The economic and social impacts of this are explored in chapters three and four of this report.

2.17 Of the 3.55 million Australian adults with hearing loss, 66 per cent had a mild loss, 23 per cent had a moderate loss and 11 per cent had a severe or profound hearing loss.<sup>12</sup>

### ***Prevalence projections***

2.18 Access Economics estimated that the prevalence of hearing impairment in children is likely to increase from 10,268 in 2005 to 11,031 by 2050, an increase of 7.5 per cent. Unlike projections for the adult population, this estimate is 'fairly static' and is based on population growth.<sup>13</sup>

2.19 Hearing loss prevalence in the adult population is expected to more than double by 2050 to one in four. For all males in Australia, hearing loss is projected to increase from 21 per cent in 2005 to 31.5 per cent (nearly one in three) in 2015. The projected increase will be largely driven by the ageing population. In the absence of a large scale prevention program, the severity of hearing loss is not expected to change. The growth in hearing loss for males is expected to increase from 21 per cent to 31.5 per cent and for females from 14 per cent to 22 per cent.<sup>14</sup>

10 Australian Hearing, *Submission 38*, p. 8.

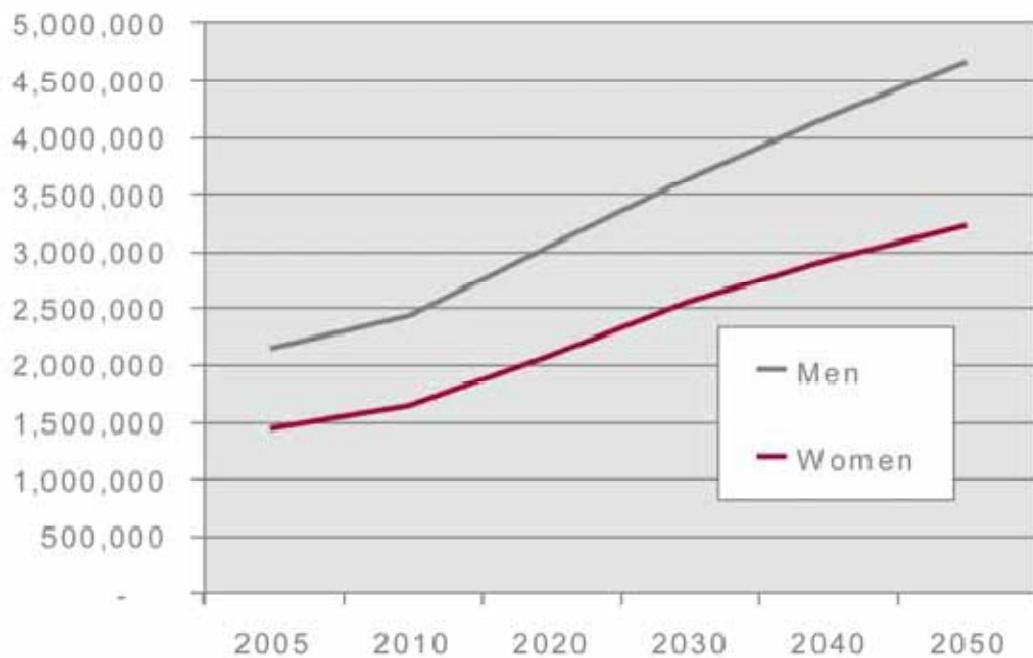
11 Access Economics, 2006, p. 31.

12 Access Economics, 2006, p. 34.

13 Access Economics, 2006, p. 39.

14 Access Economics, 2006, p. 40.

*Figure 2.2: Projected growth in hearing loss by gender (worse ear)*



Source: Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*, (February 2006), p. 41.

2.20 New South Wales (NSW) Health commented that hearing loss projections support the case for early detection and intervention programs, as well as strategies to prevent noise induced hearing loss through hearing health promotion and education.<sup>15</sup>

### **Causes of hearing loss**

2.21 As discussed above, around one in six Australians suffer from some degree of hearing impairment.<sup>16</sup> Hearing loss can be either present at birth (congenital) or occur later in life (acquired).<sup>17</sup>

2.22 There are three types of hearing loss: conductive, sensorineural or mixed.<sup>18</sup> The diagram of the parts of an ear provided below at figure 2.3 will assist to understand aspects of hearing loss.

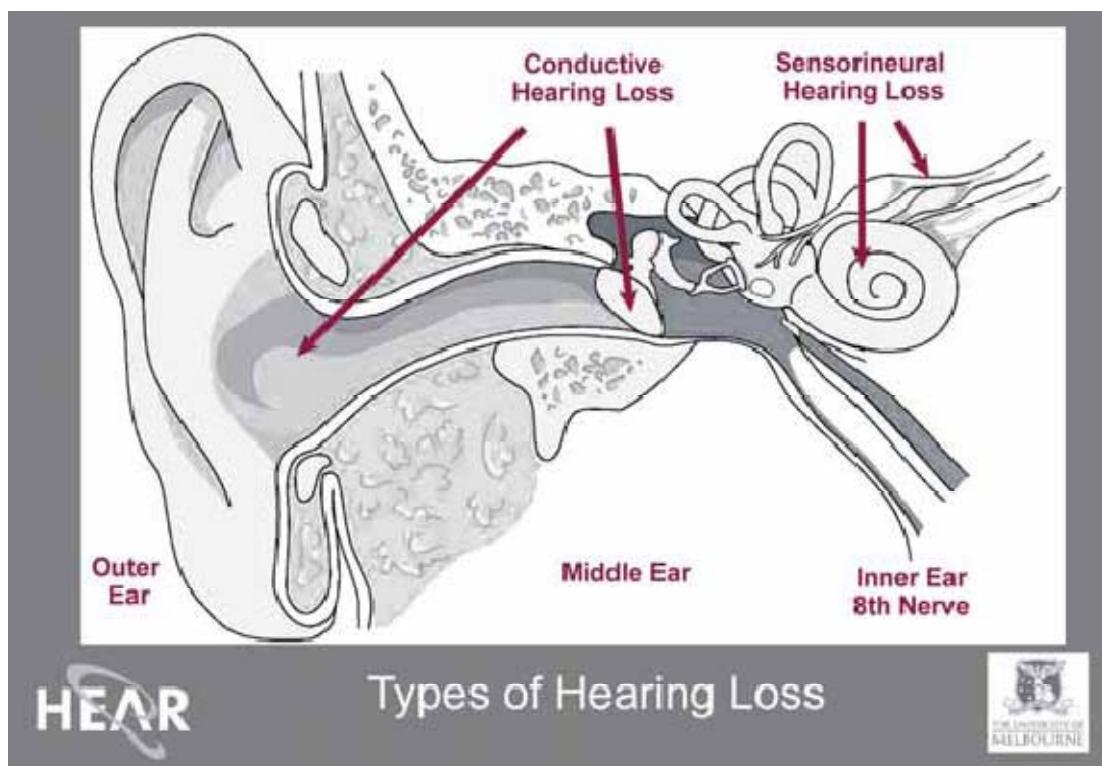
15 New South Wales (NSW) Health, *Submission 167*, p. 5.

16 Access Economics, 2006, p. 5.

17 DOHA, *Submission 54*, p. 17.

18 DOHA, *Submission 54*, p. 18.

*Figure 2.3: The hearing system*



Source: Access Economics. *Listen Hear! The economic impact and cost of hearing loss in Australia*, (February 2006), p. 15.



2.23 Conductive hearing loss occurs as a result of blockage or damage to the outer and/or middle ear, and can be either transient or permanent. The most common cause of hearing loss in children is eustachian tube dysfunction, which may affect up to 30 per cent of children during the winter months. This may lead to fluid in the middle ear, or otitis media, in which a bacterial or viral agent infects the middle ear or ear drum. Otitis media may result in perforations of the ear drum, and may over the long term cause scarring of the ear drum.<sup>19</sup>

2.24 Sensorineural loss is caused by damage to, or malfunction of, the cochlea (sensory) or the auditory nerve (neural). Damage can arise from excessive noise exposures, chemical damage such as smoking, environmental agents or medications and from the ageing process. Hearing loss can also result from damage to the auditory nerve. Sensorineural hearing loss is permanent by nature.<sup>20</sup>

19 Access Economics, 2006, p. 15.

20 Access Economics, 2006, pp 15-16.

### ***Hearing loss in children***

2.25 Most children born with a hearing loss have a sensorineural hearing loss.<sup>21</sup> The Alliance for Deaf Children noted that approximately 60 per cent of congenital deafness is due to genetics, with the remaining 40 per cent due to environmental factors or complications during pregnancy or birth. Approximately 95 per cent of children with hearing loss are born to parents with normal hearing.<sup>22</sup>

2.26 Aussie Deaf Kids reported that conductive hearing loss in children is due mainly to:

- otitis media – a middle ear infection which is usually treatable and temporary. Otitis media is particularly prevalent in Aboriginal and Torres Strait Islander populations where the disease is likely to become chronic and respond poorly to treatment, as discussed in more detail in chapter eight;
- cholesteatoma – a slow growing, non-malignant growth behind the ear drum which can result in serious damage to the middle and inner ear. It is normally the result of severe and repeated middle ear infections;
- microtia and aural atresia – a congenital deformity of the outer ear and the absence of an ear canal. Microtia and aural atresia has a reported incidence of approximately one in every 6,000 births worldwide. In most cases, microtia is also associated with aural atresia or stenosis and these children will have a conductive hearing loss.<sup>23</sup>

### ***Ageing***

2.27 As part of the ageing process there is a gradual loss of 'outer hair cell' function in the cochlea or inner ear. This diminishes the ability to distinguish similar speech sounds, or sounds heard simultaneously, such as speech in a noisy setting.<sup>24</sup> Therefore, as the committee heard many times during this inquiry, as the Australian population ages there will be increasing numbers of people with hearing loss.

### ***Noise induced hearing loss (NIHL)***

2.28 Noise induced hearing loss is associated with 37 per cent of all hearing loss.<sup>25</sup> Workplace noise and recreational noise are the most common source of noise injury and, according to the Australian Society of Otolaryngology Head and Neck Surgeons (ASOHNS), the most common form of preventable hearing loss in the western

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21 Australia New Zealand Parents of Deaf Children (ANZPOD), *Submission 24*, p. 3.

22 Alliance for Deaf Children, *Submission 58*, p. 4.

23 Aussie Deaf Kids, *Submission 16*, p. 4.

24 Government of South Australia, *Submission 145*, p. 8.

25 Access Economics, 2006, p. 18.

world.<sup>26</sup> The ASOHNS argued that it is a very important consideration in terms of maintaining the community's hearing, as its impact is felt across all ages in the community.

#### *Occupational noise induced hearing loss (ONIHL)*

2.29 An estimated one million employees in Australia may be exposed to dangerous levels of noise at work. Sound and pressure was the stated cause for over 96 per cent of workers' compensation claims for hearing loss in 2001-02. Risk of hearing impairment in the workplace may also arise through exposure to occupational ototoxins (these include solvents, fuels, metals, fertilisers, herbicides and pharmaceuticals, as discussed further in chapter six). Damage is more likely if a person is exposed to a combination of substances and noise.<sup>27</sup>

2.30 The Department of Health and Ageing (DOHA) submitted that the principle characteristics of ONIHL are that:

- the hearing loss is usually on both sides as most noise exposures are symmetric;
- symptoms may include gradual loss of hearing, hearing sensitivity and tinnitus (the experience of noise or ringing in the ears where no external physical noise is present);
- noise exposure alone does not usually produce a loss greater than 75dB at high frequencies and 40 dB at low frequencies, however hearing impairment may be worse where age-related losses are superimposed; and
- the rate of hearing loss due to chronic noise exposure is greatest during the first 10–15 years of exposure.<sup>28</sup>

2.31 Safe Work Australia provided evidence to the committee that each year there are an average of 3,400 successful workers' compensation claims for ONIHL in Australia. The nature of hearing loss is that it has a long latency, and there is often difficulty determining whether a loss is work related. Therefore Safe Work Australia believes that these figures are probably understated.<sup>29</sup>

2.32 Analysis of workers' compensation claims for hearing loss indicate that three occupational groups (labourers and related workers; tradespersons and related workers; and intermediate production and transport workers) account for 88 per cent of claims. The three highest industry sectors affected by occupational hearing loss are

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26 The Australian Society of Otolaryngology Head and Neck Surgeons (ASOHNS), *Submission 137*, p. 3.

27 Safe Work Australia, *Submission 5*, p. 1.

28 DOHA, *Submission 54*, p. 20.

29 Safe Work Australia, *Submission 5*, [p. 1].

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the manufacturing, construction, transport and storage industries. The highest incidence rates were in mining; construction; and electricity, gas and water supply.<sup>30</sup>

2.33 Dr Fleur Champion de Crespigny of Safe Work Australia outlined for the committee some of the highlights of the *National Hazard Exposure Worker Surveillance (NHEWS) Survey, 2008*:

The main findings of the research are [that between] 28 and 32 per cent of Australian workers are likely to work in an environment where they are exposed to non-trivial loud noise. Workers' sex, age, night work, industry and occupation all affected the likelihood of a worker reporting exposure to loud noise. Of these, male workers, young workers and night workers all had increased risk of exposure to loud noise. [Excluding the mining industry], [m]anufacturing and construction workers had the greatest risk of being exposed to loud noise...Technicians and trades workers, machinery operators and drivers and labourers were the occupations with the greatest odds of reporting exposure to loud noise.<sup>31</sup>

#### *Farmers and hearing loss*

2.34 The agricultural sector also reports high levels of hearing loss among farmers. 65 per cent of Australian farmers have a measurable hearing loss, compared to 22-27 per cent of the general population. Hearing loss is also high among young farmers compared to the general population.<sup>32</sup> A 2002 study found that of the farmers surveyed, the average hearing loss commenced earlier and remained much greater than that expected for an otologically normal population.<sup>33</sup>

2.35 The loss of hearing in the farming sector is due to noisy activities such as using a chainsaw, operating noisy workshop equipment, operating firearms or driving tractors which do not have a cabin over a sustained period. While education programs have been conducted to improve hearing protection for farm workers, the 2009 Rural Noise Injury Program assessment found that:

- only around one third of farmers reported adoption of higher order noise reduction strategies, such as upgrading to quieter equipment and dissipating workshop noise;
- farmers aged 35-44 years had significantly worse hearing in their left ears (the ear closest to the tractor engine when the farmer is turned around watching behind him); and

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30 Australian Institute of Occupational Hygienists (AIOH), *Submission 157*, p. 6.

31 Dr Fleur Champion de Crespigny, Safe Work Australia, *Committee Hansard*, 19 March 2010, p. 2.

32 Farmsafe Australia, *Submission 33*, p. 4.

33 Vicdeaf, *Submission 147*, p. 5.

- younger farmers who always used hearing protection had significantly better hearing than those who did not.<sup>34</sup>

2.36 Data collected predominantly from the Rural Noise Injury Program (1994–2008), which includes over 8,000 hearing assessments of mostly NSW farmers, indicate that there has been an improvement in the hearing of farmers, with the proportion of farmers with 'normal hearing' increasing over the period. For younger farmers 15–24 years, those with normal hearing increased from 57.3 per cent in 1994–2001 to 77.0 per cent for the 2002–2008 period.<sup>35</sup>

*The difficulties of relying on workers' compensation data to determine the prevalence of ONIHL*

2.37 Most discussion of the prevalence of ONIHL in Australia relies on workers' compensation data. However, there are a number of factors which may indicate that workers' compensation data do not provide a reliable measure of ONIHL.

2.38 For a worker to access compensation for ONIHL, the hearing loss must reach a minimum threshold. The minimum threshold differs across jurisdictions, but the Heads of Workers' Compensation Authorities recommended a threshold of 10 per cent hearing loss in 1997.<sup>36</sup> Access Economics commented that a fall in workers' compensation claims arising from ONIHL in recent years is most likely due to the introduction of minimum thresholds. Dr Warwick Williams commented that thresholds in effect hide the real incidence of hearing loss in the community.<sup>37</sup>

2.39 The Australian Safety and Compensation Council (ASCC) reported in 2006 on work-related hearing loss in Australia and stated that compensation statistics do not fully reflect the true incidence and cost of industrial deafness:

Whilst it is a positive sign, an improvement (reduction) in the number of claims being made does not necessarily correlate with an improvement in the prevention of NIHL. But they provide good indicators and useful trends for further examination.<sup>38</sup>

2.40 Factors contributing to this understatement include:

- not all employees make claims, or are eligible to make claims, due to differing criteria;
- there is a need to establish that the disease is work-related;

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34 Farmsafe Australia, *Submission 33*, p. 5.

35 Farmsafe Australia, *Submission 33*, p. 4.

36 Access Economics, 2006, p. 19.

37 Dr Warwick Williams, *Submission 14*, p. 1.

38 Australian Safety and Compensation Council (ASCC), *Work-related Noise Induced Hearing Loss in Australia*, 2008, p. 15.

- the industrial deafness threshold is not the same across all jurisdictions;
- industries in which employees are known to be at high risk of ONIHL are not all identified by the analysis of compensation claims (e.g. the music entertainment industry);
- the analysis focuses on industries with the largest number of claims. There may be smaller industries with not many claims, but a very high rate of claims per employee;
- employees move between jobs, so the resulting hearing condition may be due to a combination of activities; and
- employees may feel under pressure not to claim (e.g. if they think it may impact on their security of employment).<sup>39</sup>

2.41 In the agricultural sector the reasons for the underestimate include:

- only around 54 per cent of the estimated 375,000 strong agricultural workforce are actually 'employees'. Most farms are small family owned businesses with no employees;
- 'employees' within agriculture are a relatively young demographic. Noise injury is often not apparent for a number of years and job movement of young workers can be high so young workers are less likely to be able to establish a claim; and
- hearing screening services in rural areas are often lacking, and small family-owned farm businesses can not provide hearing screening services themselves. This means baseline and periodic hearing assessment to establish noise injury is difficult.<sup>40</sup>

2.42 While legislation in all Australian jurisdictions seeks to protect employees from exposure to dangerous levels of noise, the evidence indicates that problems remain in the implementation and acceptance of hearing protection.<sup>41</sup> The findings of the *NHEWS Survey, 2008* with regard to training and provision of safety equipment in noisy workplaces, revealed some areas of concern, as Dr Champion de Crespigny explained:

Training on how to prevent hearing damage appears to be underprovided in Australian workplaces. Only 41 per cent of exposed workers reported receiving any training in how to prevent hearing damage. There also appears to be a reliance on the provision of personal protective equipment for reducing exposure to loud noise. The provision of control measures in workplaces was affected by industry, occupation and workplace size. But, with a few exceptions, in general, industries and occupations with high

39 ASCC, 2008, p. 16.

40 Farmsafe Australia, Additional information, 12 November 2009, p. 2.

41 University of Melbourne, Audiology and Speech Sciences, *Submission 9*, p. 1.

odds of exposure to loud noise also seemed to have high odds of providing control measures...On the other hand, smaller workplaces—workplaces of a range of sizes but with fewer than 200 workers—were less likely to provide comprehensive noise control measures.<sup>42</sup>

2.43 Safe Work Australia told the committee about the *Getting Heard* report, which has been funded by DOHA, and which is due to be launched during Hearing Week in August 2010. Mr Wayne Creaser of Safe Work Australia explained that the *Getting Heard* project:

...is intended to look at what impacts on the effective prevention of hazardous occupational noise and what the attitudinal and institutional barriers are to effective control measures being put in place.<sup>43</sup>

2.44 Access Economics reported that there is no nationally coordinated ONIHL prevention campaign.<sup>44</sup> This issue is examined in detail in chapter seven of this report.

2.45 ASOHNS argued the need for reform of noise regulations to implement an evidence-based standard that can be shown to be effective in preventing or minimising ONIHL. ASOHNS added that current regulations do not provide for overarching guidance, supervision, education or the provision of information for employees and employers. The ASOHNS recommended that government should implement policy regarding occupational noise induced hearing loss that provides:

- evidence-based guidance and education to employers and employees with regard to ONIHL; and
- a nationally agreed benchmark method for assessing occupational hearing loss.<sup>45</sup>

2.46 In relation to the comments by ASOHNS concerning research, the committee notes that DOHA was unable to source data linking a reduction in the incidence of work related noise induced hearing loss to prevention activities.<sup>46</sup>

#### *Acoustic shock and acoustic trauma*

2.47 Two further sources of preventable hearing loss, commonly associated with the workplace, are acoustic shock and acoustic trauma.

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42 Dr Fleur Champion de Crespigny, Safe Work Australia, *Committee Hansard*, 19 March 2010, pp 2-3.

43 Wayne Creaser, *Committee Hansard*, 19 March 2010, p. 3.

44 Access Economics, 2006, p. 20.

45 ASOHNS, *Submission 137*, p. 5.

46 DOHA, answer to question on notice, 12 October 2009 (received 16 November 2009), Question 4.

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2.48 Acoustic shock describes the physiological and psychological symptoms that can be experienced following an unexpected burst of loud noise through a telephone headset or handset, and which most often occurs in call centres.<sup>47</sup>

2.49 Acoustic trauma refers to the physiological and psychological symptoms that can be experienced following exposure to very loud noises for a short period of time such as a bomb explosion, localised alarm systems, or artillery fire. Some incidents of both acoustic shock and acoustic trauma may result in temporary hearing loss, however research is not currently available to determine the contribution to permanent hearing loss.<sup>48</sup>

2.50 Of further interest for research into the long-term effects of acoustic shock is the occurrence of tinnitus and a possible relationship with the onset of Meniere's disease.<sup>49</sup>

#### *Recreational hearing loss (RHL)*

2.51 Hearing loss due to recreational activities was seen as a real and increasing issue. Concerns were voiced about the lack of regulatory controls on noise exposures for audiences at music and vehicle racing events, patrons in restaurants and bars and for the use of personal music players. Witnesses also commented on increased use of personal music players such as iPods. Personal music players are a growing source of concern for hearing health, with Apple indicating that there are 28 million iPods in use worldwide.<sup>50</sup>

2.52 Self Help for Hard of Hearing people Australia (SHHH) argued that recreational hearing damage is now at 'epidemic' levels through the use of personal music players and commented 'We don't appreciate it yet, but researchers know that young people are losing their hearing at a rate never before experienced'.<sup>51</sup> Mr Daniel Lalor went further, stating that personal music players 'will be the cigarettes and asbestos of Generation Y'.<sup>52</sup>

2.53 The University of Melbourne Audiology and Speech Sciences commented:

It is clear that recreational noise exposure reaches levels that are known to be dangerous. It is not well-established how much this recreational exposure is contributing to significant hearing loss in later life and the burden of disease and economic costs. Other recreational activities such as

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47 DOHA, *Submission 54*, p. 20.

48 DOHA, *Submission 54*, p. 20.

49 Access Economics, 2006, p. 20; DOHA, *Submission 54*, p. 20.

50 Access Economics, 2006, p. 18.

51 Self Help for Hard of Hearing people (SHHH Australia), *Submission 72*, p. 2.

52 Mr Daniel Lalor, *Submission 116*, p. 2.

shooting, motor sport and the use of power tools may also be contributing to the levels of hearing loss in the community.<sup>53</sup>

2.54 There were differing views concerning recreational exposure to noise on hearing loss. Access Economics stated that there is no epidemiological data that systematically examines RHL. While studies have shown short term or minor hearing damage resulting from personal music players and music exposure generally, there are no studies available that document exposure outcomes that result in permanent measurable and significant hearing loss. Access Economics went on to state that researchers have not reached consensus on the contribution of RHL makes to the overall prevalence of hearing loss.<sup>54</sup>

2.55 Dr Warwick Williams has found that recreational noise can be loud enough to cause damage if the length of noise exposure is long enough. Dr Williams argued that dangerous recreational noise exposure occurs at a particular stage of life (i.e. among young people), and there is no evidence that people are exposed for long enough periods to do damage.<sup>55</sup>

2.56 The Deaf Society of Victoria commented that past research had not been able to draw a conclusive link between personal music players and hearing loss, but noted a recent (2009) study which suggested there was a link.<sup>56</sup> The Society also commented that, in its experience, more adolescents and young people are exhibiting signs of hearing damage:

...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...This development has also been evidenced in recent hearing screenings undertaken by Vicdeaf.<sup>57</sup>

2.57 Other witnesses provided similar evidence arising from their direct contact with young people. Mr John Gimpel of the Hearing Industry Association commented that the experience of people undertaking hearing testing indicated that:

...the prevalence of high-end loss in people in their late 20s is really starting to come through, and these people have had absolutely no exposure to any noise in the workplace—all they have ever had is the doof-doof in their ears.<sup>58</sup>

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53 The University of Melbourne, Audiology and Speech Sciences, *Submission 9*, p. 2.

54 Access Economics, 2006, p. 18.

55 Access Economics, 2006, p. 19.

56 Victorian Deaf Society, *Submission 147*, p. 6.

57 Victorian Deaf Society, *Submission 147*, p. 6.

58 Mr John Gimpel, Hearing Industry Association, *Committee Hansard*, 11 November 2009, p. 112.

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2.58 Mrs Noeleen Bieske of the Deafness Foundation commented:

The seal of the iPod is so tight in the ear that it is just giving that full blast going into the hearing mechanism. These young people are not aware. I take calls from people saying, 'I've got this shocking ringing in my ears.' When I say, 'What have you been doing?' they say, 'I've been wearing my iPod for a minimum of three to four hours a day, I play in a band, I don't wear musician plugs and I also work in a bar in a pub.' These kids are 30 maybe or in their late 20s and they are saying, 'Now I can't hear properly. What am I going to do?'.<sup>59</sup>

2.59 Other witnesses pointed to developments overseas. In 2008, the European Union Scientific Committee on Emerging and Newly Identified Health Risks on Personal Music Players and Hearing published a report which warned that listening to personal music players at a high volume over a sustained period can lead to permanent hearing damage. It was reported that five to 10 per cent of listeners risk permanent hearing loss. These are people typically listening to music for over one hour a day at high volume control settings. It estimated that up to 10 million people in the European Union may be at risk.

2.60 In September 2009, the European Commission sought to establish new technical safety standards that would set default settings of players at a safe level and allow consumers to override these only after receiving clear warnings so they know the risks they are taking. Dr Burgess indicated that the Product Safety Section of the Australian Competition and Consumer Commission (ACCC) has been alerted to these developments, and that they have established a project to look at these issues.<sup>60</sup>

2.61 In France the noise level of personal music players has been limited to 95dB.<sup>61</sup> In Switzerland, limits on audience exposure at venues with amplified music have been set with a 93 dB(A) limit for events for under 16 year olds and a 100 dB(A) limit for other events plus a requirement to inform and supply free hearing protectors when over 93 dB(A).<sup>62</sup>

### ***Causes and prevalence of deafblindness***

2.62 The committee heard evidence about the particular challenges faced by Australians who are deaf and blind (deafblind). The Australian DeafBlind Council stated that there are some 300,000 people in Australia who are deafblind (if people with a mild hearing loss are included). Of these 7,000 to 9,000 are under 65 and

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59 Ms Noeleen Bieske, Deafness Foundation, *Committee Hansard*, 8 December 2009, p. 100.

60 Dr Marion Burgess and colleagues, Acoustics and Vibration Unit, University of NSW, *Submission 172*, p. 3.

61 Professor Harvey Coates, *Committee Hansard*, 9 December 2009, p. 22.

62 Dr Marion Burgess and colleagues, Acoustics and Vibration Unit, University of NSW, *Submission 172*, p. 3.

281,000 (or 93.7 per cent) are 65 years of age and over.<sup>63</sup> The Senses Foundation provided evidence that in Western Australia (WA) 63 per cent of deafblind people were male.

2.63 The causes of congenital deafblindness include infections such as Cytomegalovirus (CMV) and Congenital Rubella Syndrome (CRS), chromosomal abnormalities, genetic disorders and premature birth.

2.64 Senses Foundation indicated that the incidence of deafblindness arising from CRS is relatively rare due to the introduction of widespread vaccination against rubella. In Australia there were no reported cases of CRS between 1997 and 2002. However, Senses noted that concerns have been expressed about the maintenance of the level of immunisation required to stop the spread of rubella. In particular, the lower immunisation levels in Indigenous communities may not provide adequate immunity.<sup>64</sup>

2.65 There are a number of chromosomal conditions and syndromes which may lead to deafblindness. The incidence of two, Usher's syndrome and CHARGE syndrome, have increased in recent years. Usher's syndrome is the most common disease associated with hearing loss and eye disorders.

2.66 Deafblindness is also associated with prematurity and Foetal Alcohol Spectrum Disorder (FASD). The evidence indicates that there appears to be a strong relationship between poverty and the incidence of FASD.

2.67 Acquired deafblindness may be from illnesses such as meningitis, encephalitis and brain tumours, and trauma such as head injuries and ageing.

2.68 The Australian DeafBlind Council stated that there is a lack of 'appropriately qualified interpreters' to assist deafblind people to access health services and community support, and that this causes distress for those most affected.<sup>65</sup>

### **Committee comment**

2.69 The evidence provided to the committee clearly indicates that hearing impairment is a major issue in Australia, with one in six Australians suffering from some degree of hearing loss. While much of the expected increase in hearing impairment over the coming decades is due to the ageing of the population, a significant proportion of hearing loss is due to noise damage which is preventable.

2.70 Governments have recognised the dangers that workplaces can pose to hearing, and have legislated to enforce safety measures, and implemented prevention

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63 Australian DeafBlind Council, *Submission 69*, p. 3.

64 Senses Foundation, *Submission 59*, p. 6.

65 Australian DeafBlind Council, *Submission 69*, p. 9.

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strategies. However, analysis of workers' compensation data indicate that working in many industry sectors still poses a risk to hearing health. Evidence was received that the workers' compensation data may not be revealing the full extent of ONIHL.

2.71 Evidence also indicates that recreational activities may be an increasing cause of hearing impairment. Whilst the scientific proof is still ambiguous, the committee believes that there may be some connection between hearing loss and the extensive use of personal music players. The committee notes the evidence of hearing services which have observed emerging patterns of the detrimental impacts of recreational noise among young people.

2.72 The committee also notes that overseas there have been moves to limit noise levels on personal music players as well as limiting audience exposure at music venues. The committee considers that the problem of recreational hearing loss should be targeted in two ways: awareness campaigns directed at young people (see chapter seven for recommendations); and introducing limits to exposure to recreational noise.

2.73 The committee heard that the ACCC is already investigating the future application of noise limitations for personal music players sold in Australia.

2.74 Whilst their support needs are often acute, the particular issues facing deafblind people in Australia broadly reflect the issues facing all people with a hearing impairment, namely: access to services and support; forecast increased prevalence; and the need for greater understanding about causes of deafblindness. The committee offers its encouragement to the Australian Deafblind Council in their efforts to represent and advocate for deafblind people. The committee has made recommendations at chapters five and six which, if implemented, will benefit deafblind people.

## **Recommendation 1**

2.75 **The committee recommends that the Department of Health and Ageing work with the appropriate agencies and authorities to devise recreational noise safety regulations for entertainment venues. Specifically, where music is expected to be louder than a recommended safe level, that the venues be required to:**

- (a) post prominent notices warning patrons that the noise level at that venue may be loud enough to cause hearing damage; and**
- (b) make ear plugs freely available to all patrons.**



# **CHAPTER 3**

## **THE COSTS OF HEARING IMPAIRMENT IN AUSTRALIA**

In 2005, the real financial cost of hearing loss [in Australia] was 11.75 billion dollars or 1.4% of [Gross Domestic Product].

Access Economics, Listen Hear! The economic impact and cost of hearing loss in Australia (February 2006), p. 5.

### **Introduction**

3.1 This chapter will examine the costs of hearing loss to Australia. These include the costs of providing government services, and lost productivity due to hearing loss.

3.2 The financial costs of hearing loss to individuals, such as clinical costs and the purchase and maintenance of hearing devices, are discussed below in chapter four.

3.3 The total cost of hearing loss for 2005, as calculated by Access Economics, was \$11.75 billion. This figure is broken down at Table 3.1. Line items are explained in further detail in the following sections of this report.

*Table 3.1: Hearing Loss, Financial Cost Summary, 2005 (\$m)*

Cost element	Real cost <sup>1</sup>	Transfer payment <sup>2</sup>
<i>Direct Costs</i>		
Total health costs plus hearing aids and implants (direct costs)	674	315
<i>Indirect Costs</i>		
Lost earnings (people with a hearing loss)	6,667	
Tax foregone (people with a hearing loss)		1,333
Value of carers	3,168	
Welfare payments		1,328
Education, support and aids	191	
Deadweight losses	1,048	
Sub-total, indirect costs	11,073	
<b>Total financial costs</b>	<b>11,748</b>	<b>2,662</b>

Access Economics, 2006, p. 68.

3.4 The committee notes that the greatest cost to Australia of hearing loss is lost earnings of hearing impaired people, at 56.8 per cent of the total. The causes of lost productivity due to hearing loss are examined in chapter four of this report.

3.5 Access Economics noted that this cost translates to an annual cost of \$578 for every Australian, or \$3,314 for each person with hearing loss.<sup>3</sup> According to Deafness Forum Australia, this figure can be contrasted with government spending on hearing loss of \$62 per person with hearing loss.<sup>4</sup> The Hearing Care Industry Association (HCIA) claimed that this compares with \$10,904 per person with cancer and \$42,064

1 A 'real cost' in this context is one which uses real resources (such as capital or labour), or which reduces the capacity of the economy to produce goods and services.

2 A 'transfer payment' involves making a payment from one agency to another, such as disability support pension or tax revenue.

3 Access Economics, 2006, p. 68.

4 Deafness Forum of Australia, *Submission 34*, p. 13.

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per person with mental illness.<sup>5</sup> Hearing loss accounts for only 0.35% of total recurrent health expenditure in Australia.<sup>6</sup>

3.6 The Department of Health and Ageing (DOHA) gave evidence that hearing services represents 0.6 per cent of its 2009-10 health budget of \$55.3 billion. DOHA noted that hearing health expenditure growth is consistent with overall health expenditure growth. Health cost growth is largely driven by an ageing population, and is tipped to be seven per cent of Gross Domestic Product by 2046-47 (up three points from four per cent in 2006-07).<sup>7</sup>

## **Direct costs of hearing loss**

3.7 Access Economics calculated the direct costs of hearing health in 2005 at \$674 million (excluding transfer payments).<sup>8</sup> Direct costs include health system costs and the costs of hearing aids and implants, and represent both public and private expenditure.<sup>9</sup>

### ***Health system costs***

3.8 The direct cost of hearing health to health systems in 2005 was \$247.5 million. Health system costs include the following elements:

- (a) Allied health (including audiology and speech therapy);
- (b) Outpatient expenditures (ear examinations, advanced assessment of ear disease, and minor procedures such as ear wax removal);
- (c) Medical specialist care;
- (d) Inpatient costs (corrective surgeries, clinical costs of implant surgery);
- (e) Health research;
- (f) Pharmaceuticals;
- (g) GPs;
- (h) Aged care homes; and
- (i) Diagnostic imaging and pathology.<sup>10</sup>

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5 Hearing Care Industry Association (HCIA), *Submission 62*, p. 7.

6 Access Economics, 2006, p. 48.

7 Department of Health and Ageing (DOHA), *Submission 54*, pp 26-27.

8 Access Economics, 2006, p. 68.

9 Access Economics, 2006, p. 44.

10 Access Economics, 2006, pp 45-46.

3.9 Table 3.2 shows the cost of each of these elements of health system expenditure on hearing loss from highest to lowest.

*Table 3.2: Hearing Loss, Cost to Health Systems, 2005*

Health system cost item	Cost in 2005 (\$m)	Proportion of total cost (%)
Allied health	130.2	52.6
Outpatient expenditures	45.7	18.5
Medical specialist care	32.9	13.3
Pharmaceuticals	13.2	5.3
Health research	10.2	4.1
Inpatient costs	8.8	3.6
GPs	3.5	1.4
Aged care homes	2.7	1.1
Diagnostic imaging and pathology	0.4	0.2
<b>Total</b>	<b>247.5</b>	<b>100</b>

Access Economics, 2006, p. 46.

### ***Hearing aids and cochlear implants***

3.10 The cost to health systems of providing hearing aids and cochlear implants in 2005 was \$376.7 million. This represented the largest single cost of hearing health to health systems.<sup>11</sup>

### ***Hearing aids and related interventions***

3.11 Access Economics has calculated the cost to the Office of Hearing Services (OHS) of providing hearing services as \$243 million. These services include more than just the provision of hearing aids. They include hearing tests and audiological interventions.<sup>12</sup> As noted in *Listen Hear!* the majority of vouchers provided under the voucher program are used for hearing aids (in 2004-05, of 192,149 vouchers issued 161,849, or 84.2 per cent, were used for hearing aids).<sup>13</sup>

11 Access Economics, 2006, p. 49.

12 DOHA, viewed 23 April 2010,  
<http://www.health.gov.au/internet/main/publishing.nsf/Content/health-hear-applic.htm>

13 Access Economics, 2006, p. 49.

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3.12 DOHA noted the rise in real costs (i.e. adjusted for inflation) of OHS programs over the past decade. The voucher program (which provides hearing services and devices to eligible recipients via a voucher – see chapter five for more details) costs have risen by 75 per cent since 2000-01 (from \$154.1 million to \$268.9 million in 2008-09), and the Community Service Obligation (CSO) program costs rose by 23 per cent over the same period (from \$36.2 million to \$45.9 million).<sup>14</sup>

### *Cochlear implants*

3.13 The annual cost of cochlear implant technology in 2005 was estimated at \$10 million.<sup>15</sup> This figure does not include the clinical cost of the implants, which was captured under recurrent health costs above. This cost will grow as a proportion of hearing health costs as the technology improves, and the eligibility conditions for implantees widens.<sup>16</sup> The Sydney Cochlear Implant Centre estimated that whilst there are 6,000 implantees today, as many as 84,000 more people might benefit from a cochlear implant.<sup>17</sup>

## **Indirect costs of hearing loss**

### *Lost earnings*

3.14 As noted in *Listen Hear!:*

Hearing loss can have an impact on a person's capacity to work. If employment rates are lower for people with hearing loss, this loss in productivity represents a real cost to the economy.<sup>18</sup>

3.15 Lost earnings due to hearing loss has been inferred from employment data about hearing impaired people, which was controlled for other variables such as gender, age and other disability.<sup>19</sup> It has also been shown that people with a hearing impairment are less likely to earn a high income than people with normal hearing.<sup>20</sup> Access Economics estimated the cost of lost earnings due to hearing loss in 2005 as \$6.67 billion.<sup>21</sup>

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14 DOHA, *Submission 54*, p. 28.

15 Access Economics, 2006, p. 50.

16 Professor Harvey Dillon, Director, National Acoustic Laboratory (NAL), *Committee Hansard*, 19 March 2010, p. 11.

17 Sydney Cochlear Implant Clinic, *Submission 28*, [p. 6].

18 Access Economics, 2006, p. 52.

19 Access Economics, 2006, pp 52-54.

20 Access Economics, 2006, p. 52.

21 Access Economics, 2006, p. 54.

### **Tax foregone**

3.16 There are two aspects to the impact of hearing loss on taxation revenue for the government. Lower workforce participation, absenteeism and premature death mean that the people affected are contributing less income tax revenue. Lower income levels among the hearing impaired mean lower capacity to consume goods and services than people with normal hearing. Reduced consumption of goods and services means reduced consumption tax contributions.<sup>22</sup>

3.17 Access Economics calculated that the cost of tax foregone in 2005, based on the premises set out above, was \$2 billion. Of this, \$1.33 billion (67 per cent) represents lost income tax revenue and \$0.67 billion (33 per cent) is lost consumption tax.

### **Value of carers**

3.18 The cost of carers in this context represents the financial impact of 'informal care'. *Listen Hear!* provides a description of what this care may look like:

Informal care, in a hearing loss context, can encompass repeating what has just been said for a person, buying a train ticket for them, making telephone calls, taking notes in a meeting at work or in a classroom, or assisting with communication at a medical appointment. Such care is usually provided by a family member or close friend. By example, the reader may recall the scene in *Four Weddings and a Funeral* where the lead [character] Charles (Hugh Grant) was required to interpret in sign language for his brother at a job interview.<sup>23</sup>

3.19 For the purpose of its report, Access Economics chose to estimate the cost of informal care for people with hearing loss by placing a value on the cost of buying a similar amount and type of services from the formal care sector.<sup>24</sup>

3.20 Whilst acknowledging that their methodology may underestimate the 'true cost' of informal care for people with a hearing loss, Access Economics estimated the cost of informal care in 2005 at \$3.17 billion.<sup>25</sup>

### **Welfare payments**

3.21 Welfare payments are transfer costs, as opposed to 'real' costs.

3.22 The cost of welfare payments from hearing loss was based on the number of people in receipt of welfare payments who are thought to be not working due to

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22 Access Economics, 2006, p. 55.

23 Access Economics, 2006, p. 64.

24 Access Economics, 2006, p. 65.

25 Access Economics, 2006, p. 65.

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hearing loss. Access Economics estimated the cost of welfare payments due to hearing loss in 2005 at \$1,328.3 million.<sup>26</sup>

### ***Education support and aids***

3.23 There are several cost components to this item, which are explained below. In total they were estimated to cost \$191 million in 2005.

#### *Early intervention services*

3.24 Early intervention describes the hearing impairment services available for children less than five years of age. These include newborn hearing screening, early intervention programs for children diagnosed with hearing loss, and pre-school preparation and education programs.<sup>27</sup>

3.25 Access Economics estimated the total cost of these services in 2005 at \$20.8 million. The committee notes that universal newborn hearing screening is being implemented during 2010, and therefore early intervention costs are likely to increase as a result of increased diagnoses. This issue is discussed in chapter five.

#### *Primary and secondary education services*

3.26 The services provided for education can include a range of things, such as additional teaching and teacher aid staff, interpreters, and the cost of fitting out classrooms as well as other specialised teaching and support equipment.

3.27 Drawing on international economic models, and in the absence of reliable data about hearing impaired students in Australian schools, Access Economics estimated that the 'extra' cost of educating children with hearing loss in 2005 was \$117.2 million.<sup>28</sup>

#### *Post school education services*

3.28 People with a hearing loss undertaking study after compulsory schooling also often require additional support. This often takes the form of note-takers or interpreters who can assist the person with a hearing loss access lectures and other oral delivery methods.

3.29 Access Economics estimated the cost of supporting tertiary students with hearing loss in 2005 at \$2.6 million.<sup>29</sup>

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26 Access Economics, 2006, pp 65-66.

27 Access Economics, 2006, p. 56.

28 Access Economics, 2006, p. 59.

29 Access Economics, 2006, pp 59-60.

*Other support services*

3.30 There are a range of support services available to people with a hearing impairment in Australia, many of which are discussed in more detail in chapter five. These services can include interpreter services, captioning, and the services provided by support and volunteer organisations.

3.31 Access Economics estimated the value of these services in 2005 at \$36.2 million.<sup>30</sup>

*Communication devices*

3.32 The cost of communication devices in this section excludes hearing aids and cochlear implants, which have been discussed previously. Access Economics has considered a wide range of communication devices and their costs. Devices allowed for here include fax machines, specialised phones, telephone relay services and even pads and pencils.

3.33 Access Economics estimated the cost of these devices in 2005 at \$13.8 million.<sup>31</sup>

***Deadweight losses***

3.34 'Deadweight losses' is the last cost item at Table 3.1. A deadweight loss in this context is the cost of the 'taxation needed to finance the welfare payments' described above. The deadweight losses in 2005 generated by hearing loss in Australia was estimated at \$1.048 billion.<sup>32</sup>

**Other issues of cost**

3.35 Whilst the Access Economics report provided the most comprehensive summary of the economic costs of hearing loss in Australia available to the committee, submissions raised other issues of relevance to cost.

3.36 As was noted in chapter two, each year there are around 3,400 successful workers' compensation claims for occupational noise induced hearing loss (ONIHL) in Australia. The direct cost of these claims is \$41 million in payments each year, though as was also noted earlier this figure is likely to be understated.<sup>33</sup>

3.37 The ONIHL issues confronting farm workers were also noted in chapter two. Based on rural populations and the prevalence of hearing loss among farm workers,

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30 Access Economics, 2006, pp 60-61.

31 Access Economics, 2006, pp 62-64.

32 Access Economics, 2006, p. 67.

33 Safe Work Australia, *Submission 5*, [p. 1].

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Farmsafe Australia provided the committee with a rough estimate of the costs of hearing health in rural Australia at \$517 million per year.<sup>34</sup>

3.38 Deafness Forum of Australia noted in their submission that early diagnosis, intervention and management of hearing impairment is 'highly cost effective', as it reduces the need for remedial programs later in life.<sup>35</sup> New South Wales Health also noted this issue:

Given the predicted increase in hearing loss incidence, the real financial cost of hearing loss is set to grow. The best protection for individuals, communities and the economy is to provide timely, appropriate services and management of hearing losses at the earliest opportunity.<sup>36</sup>

3.39 Access Economics found that although children up to the age of 14 years represent less than one per cent of all people with a hearing loss, 27 per cent of health expenditure is directed at this age group.<sup>37</sup>

3.40 As noted in chapter two, and again in chapter eight with particular regard to Indigenous people, otitis media is a common condition among children. With the exception of Indigenous children, as discussed in chapter eight, otitis media is usually self-limiting, and does not cause permanent damage. Nevertheless there are still costs associated with treating and managing the condition, including General Practitioner (GP) consultations and pharmaceuticals. These costs were estimated by one study to be in the range of \$100 million to \$400 million in 2008.<sup>38</sup>

### **Committee comment**

3.41 The economic cost of hearing health to Australia is high. In future years, as our population ages, costs will become higher still.

3.42 Many submitters and witnesses discussed the non-financial costs of hearing loss to Australia. The committee has addressed these concerns separately in other chapters of this report, particularly in chapter four.

3.43 The committee is pleased that Access Economics assigned an economic value to the role of carers in supporting people with hearing loss. The committee agrees that the estimate is probably low, for the reasons that Access Economics noted, however to recognise the value of volunteer and family support is very important in a field rich with the contributions of volunteers.

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34 Farmsafe Australia, *Submission 33*, p. 5.

35 Deafness Forum Australia, *Submission 34*, p. 11.

36 New South Wales (NSW) Health, *Submission 167*, p. 6.

37 Access Economics, 2006, p. 47.

38 GlaxoSmithKline, *Submission 43*, p. 5.

3.44 The cost to Australia of lost productivity through hearing loss is of great concern to the committee. This is the largest real cost of hearing loss. The committee is convinced by the evidence that early intervention and habilitation of people with a hearing loss will pay society back in the long term with higher workforce participation and the associated spin-off economic benefits.

3.45 The committee also believes that all governments should make every effort to attract, support and retain people with a hearing loss in the workforce, and has made recommendations which address this in chapter four of this report.

3.46 The committee notes the relatively low expenditure by governments on hearing health compared to other areas of health. The committee believes that this relatively low expenditure is reflected in the nature and tone of many submissions to this inquiry around lack of access to hearing health support by a large section of the Australian community. The committee has made recommendations in chapter five of this report to expand the eligibility criteria for Office of Hearing Services support, which may increase the per person expenditure levels in future years.

## CHAPTER 4

### THE IMPLICATIONS OF HEARING IMPAIRMENT FOR INDIVIDUALS AND THE COMMUNITY

Though endowed with a passionate and lively temperament and even fond of the distraction offered by society, I was soon obliged to seclude myself and live in solitude...if I appear in company I am overcome by a burning anxiety, a fear that I am running the risk of letting people know my condition...such experiences have almost made me despair, and I was on the point of putting an end to my life – the only thing that held me back was my art.

Beethoven on his increasing deafness, Heiligenstadt Statement, 6 October 1802.

...[hearing loss] annoys me as I don't enjoy things as much. Music is dull, going out is too much noise, eating and...socialising in cafes is difficult, I miss the birds and the sound of the sea.

Ms Erica Smith, *Submission 79*, [p. 1].

#### **Introduction**

4.1 The committee heard about many implications of hearing impairment during the course of this inquiry. Evidence about its effect on the lives of individual people made a strong impression. Dozens of people shared their often personal and emotional experiences, and the committee was deeply moved by their passion and their courage.

4.2 What was less obvious, though in some ways just as powerful, was the impact of hearing loss on the broader Australian community. Hearing loss can lead people to isolate themselves and deny the rest of society their talents and creative ideas. The lost productivity and revenue caused by early retirement or under-employment is a tangible loss to all Australians, as was discussed above in chapter three.

4.3 This chapter examines the personal, social, economic and other costs of hearing impairment for individuals and the community in Australia.

#### **The impact of hearing loss on individuals**

##### *Emotional and physical wellbeing*

4.4 Evidence was presented to the committee that hearing loss can have a profound impact on a person's emotional wellbeing. The particular impact differs according to whether hearing loss occurs early or later in life, and its severity.<sup>1</sup> The

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1 Department of Health and Ageing (DOHA), *Submission 54*, pp 20-21.

common factor when considering the impact of hearing loss on individuals appears to be its impact on people's capacity to communicate.

4.5 The committee received evidence about the psychological and other health implications of hearing loss.<sup>2</sup> The Department of Health and Ageing (DOHA) noted that the effects of hearing loss can include isolation, depression, anxiety, paranoia, loss of intimacy and anger.<sup>3</sup> Whilst provision of hearing assistance devices and rehabilitation support can mitigate negative experiences<sup>4</sup>, the committee is in no doubt that, as the University of Melbourne Audiology and Speech Sciences put it:

...once a hearing loss reaches the severe level (a point where people are unlikely to be able to use the telephone successfully), the effects on vocational, social and educational activities are often truly devastating.<sup>5</sup>

4.6 Most evidence received by the committee was practical and constructive in nature. A large quantity of evidence was also received which testifies to the impact of hearing loss on individuals. The following statements are typical of the range of very personal, emotional experiences shared with the committee by hearing impaired Australians:

I have been profoundly deaf since the age of seven. I am now seventy-one. During that time I have operated on the periphery of what goes on every day, and I often feel confused and vulnerable. Due to my hearing impairment, I cannot make accurate judgments about verbal events which affect me constantly. In attempting to interact with people, I frequently experience significant levels of stress, through not knowing if my judgment or responses to situations are accurate, and if these judgments or responses are going to result in adverse outcomes.<sup>6</sup>

It [hearing impairment] feels as though we're punished for something that is out of our control...I certainly never asked to be hearing impaired.<sup>7</sup>

The cost of hearing Impairment is great, but not in the dollars, it's with the individual. Can anyone put a price on the importance of good hearing? Can you put a price on hearing your daughters, mother, fathers, sons voices? Can you put a price on the feeling and complete loss?<sup>8</sup>

The experience of the loss of one's hearing is invariably a negative one.<sup>9</sup>

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2 See also Dr Aaron Groves, Director of Mental Health, Queensland Health, Select Committee on Regional and Remote Indigenous Communities, *Committee Hansard*, 15 April 2010, p. 70.

3 DOHA, *Submission 54*, p. 20.

4 DOHA, *Submission 54*, p. 20.

5 University of Melbourne, Audiology and Speech Sciences, *Submission 9*, p. 2.

6 Mr Peter Lindley, *Submission 106*, p. 5.

7 Ms Hilda Sutcliffe, *Submission 118*, [p. 1].

8 Ms Sandra Nelson, *Submission 151*, [p. 2]

9 Ms Margaret Robertson, *Submission 1*, p. 1.

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I just stay home now and keep my garden. I don't go out [because] I can't hear.<sup>10</sup>

4.7 One of the more confronting accounts provided to the committee was included as a case study in Hearing Impaired and Deaf Kindred Organisation Network (HIDKON)'s submission to the inquiry:

I am 35 years old and live in rural SA. Farming is a tough slog at the moment. I can't hear well due to the years I have been around farm machinery. It has damaged my hearing. I have significant tinnitus which impacts on my communication and state of mind. I [can't] concentrate to do the [Business Activity Statement] and my hearing loss means that I have difficulty when [I] attend lectures to learn how. My GP sent me to an ENT, I had to drive 3 [hours] to Adelaide all for him...to say there was nothing he could do. This left me on the shelf...I tried to do the right thing and I have investigated hearing aids and after paying for another hearing test...I found out they would cost a couple of thousand dollars – at a minimum. I've gone down hill in the past year. I'm now on antidepressants and anti-anxiety medication. I feel like I'm giving up. I don't go to meetings any longer, don't attend church and avoid social situations [because] I can't hear. Communication with my family is very difficult and I know it is causing relationship breakdown. Sometimes it would be easier to end it all...I learnt a few years back at a field day about noise and hearing loss and now wear ear muffs all the time to protect them. But it's too late.<sup>11</sup>

4.8 Several hearing impaired submitters commented on the difficulty they have accessing public announcements,<sup>12</sup> particularly where there are no visual clues to reinforce spoken announcements:

I cannot hear train announcements as when the person is speaking the sound distorts and it sounds to me like Donald Duck. As a consequence I have missed trains, gotten lost, and couldn't use a phone to call a cab to get home.<sup>13</sup>

One watches other passengers cocking their heads to hear the announcements, then reacting (rolling their eyes or tut-tutting or making mobile phone calls), and if one is confident, chooses a friendly-looking passenger to ask their advice. (However, sometimes it feels risky to make...one's hearing-impaired status known to strangers.) If there are no other passengers in the carriage or station whom I feel comfortable approaching, I can only hope the cause of the disruption is nothing life-

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10 Quoted in Hearing Impaired and Deaf Kindred Organisation Network (HIDKON), *Submission 41*, p. 12.

11 Quoted in HIDKON, *Submission 41*, p. 12.

12 See for example Ms Shona Fennell, *Submission 108*, [p. 1].

13 Mrs Shirley Edwards, *Submission 81*, p. 1.

threatening, and that the delay will not be so long as to cause me to miss a critical appointment.<sup>14</sup>

4.9 The committee also received evidence that hearing impairment has an effect on people around the person who is hearing impaired. The finding of one study was quoted by Phoenix Consulting in their submission:

Hearing loss affects both the individual who has it and those with whom he or she interacts. If the listener is hard of hearing and does not understand what is being said, the person speaking will also experience a communication problem. In the same way, speakers, as well as listeners who are hard of hearing, share responsibility for preventing or reducing communication problems related to hearing loss... (listeners) cannot prevent or resolve communication problems by themselves; they often need the co-operation of those with whom they communicate.<sup>15</sup>

4.10 Connect Hearing remarked on the way people without hearing impairment perceive people with a hearing impairment in everyday life, noting that individuals with hearing impairment can be variously considered 'stupid' (because they answer questions incorrectly or respond inappropriately), 'senile' (among elderly due to lack of response or engagement), or 'aloof' (perceived as arrogant when they don't respond).<sup>16</sup> Or, in the words of Michael Uniacke: '...for most people, blind people arouse concern, but deaf people arouse impatience'.<sup>17</sup>

4.11 Whilst the most common impacts of hearing loss on adult health are social and emotional, hearing loss in adults is also associated with an increased risk for a variety of physical health conditions including diabetes, stroke, heart attack, and elevated blood pressure.<sup>18</sup>

4.12 Margaret Robertson noted in her submission a Swedish study which reported findings from research into the association between hearing loss and increased risk of other diseases:

Frustration, irritation and perceived inferiority in social interactions were mentioned frequently by the subjects. The psychophysical effects of stress are known to elevate output of stress hormones, leading to increased risk of diseases.<sup>19</sup>

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14 Jill, 42, quoted in Deafness Forum of Australia, *Submission 34*, pp 24-25.

15 Quoted in Phoenix Consulting, *Submission 112*, p. 21.

16 Connect Hearing, *Submission 23*, p. 2.

17 Mr Michael Uniacke, *Submission 168*, p. 3.

18 DOHA, *Submission 54*, p. 22; Access Economics, 2006, p. 23.

19 Mrs Margaret Robinson, *Submission 1*, p. 4.

## ***Employment***

4.13 Access Economics has shown that people with a hearing loss are less likely to be employed than other Australians.<sup>20</sup> Furthermore, people with a hearing impairment in the workforce are 25 per cent less likely to be earning higher incomes.<sup>21</sup> This under-employment results in lost productivity, as noted already in chapter three. Lost productivity costs will grow in the future. Australian Hearing stated: 'The impact of hearing loss on workforce participation will become greater as the population ages, and the pension entitlement age increases'.<sup>22</sup>

4.14 The broader economic implications of this were explored in chapter three of this report, however the psychological and emotional burden of lower levels of employment are part of the impact of hearing health on individuals.

4.15 One submitter remarked on this aspect of the impact of hearing loss that 'Having a hearing loss has meant that I can't work in my trained and experienced field, therefore I have a lower paid job'.<sup>23</sup> Another submitter commented that they also were no longer working at their former level:

I cannot any longer take full part in meetings, undertake lecturing or teaching or run community consultation, all work I used to do...I am still in paid work but am only able to be so because of the patience and consideration of my colleagues, and because I work in a quiet environment.<sup>24</sup>

4.16 The committee heard from one hearing impaired person that being willing to work and study to improve their chances in life is not always enough:

It is hard to find jobs too when [you] have a hearing impairment...I can't work in anything that requires the use of a phone, or face to face customer interaction, and I'm even prevented from studying to broaden my career aspects, due to the lack of interpreters available, so I miss out greatly on getting anywhere in life. I have dropped out of 3 TAFE courses over the years due to not being able to get enough interpreters. As a result, I have no way of funding earmoulds or hearing aids when the need arises.<sup>25</sup>

4.17 Deafness Forum Australia commented on some of the barriers that might be faced by employers wanting to engage hearing impaired staff:

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20 Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*, February 2006, pp 52-53.

21 Access Economics, 2006, p. 52.

22 Australian Hearing, *Submission 38*, p. 8.

23 Ms Erica Smith, *Submission 71*, [p. 1].

24 Dr Andrea Lindsay, *Submission 155*, p. 1.

25 Ms Hilda Sutcliffe, *Submission 118*, [p. 1].

...without adequate support in the workforce, why would an employer hire someone with greater support needs, with greater costs to the employer? For example, to bring in interpreters for weekly section meetings at up to \$120 per hour is a considerable expense for a small business, one which government programs [do] not go far enough to cover. For meetings over 2 hours' duration, two interpreters are required for OHS reasons, making a cost of up to \$240 per hour.<sup>26</sup>

4.18 The issue of early retirement or disengagement due to hearing loss was raised by many people, and is central to Access Economics' 2006 economic analysis of hearing loss in Australia.<sup>27</sup> The following quotes from Deafness Forum Australia's submission to this inquiry illustrate the human face of early retirement:

At the age of 46 I was in my office, I was having a conversation with one of my PhD students, and I realised I was not hearing what she said. It was quiet, I had my hearing aid up, I could not hear a lot of what was being said. And so I thought, 'OK, this is time to retire'.<sup>28</sup>

I had to leave my job as I could no longer cope with struggling to hear what was being said in meetings.<sup>29</sup>

4.19 It is recognised that employment provides people with the ability to earn an income to support themselves and, importantly, employment provides a sense of contribution, achievement and community. Submissions received by the committee indicate that hearing impairment can have a considerable impact on a person's working life, and is a key factor in the socio-economic impact of hearing loss.<sup>30</sup>

4.20 Access Economics outlines research which:

...suggests that people with hearing loss are on the margins of the workplace and struggle to maintain their employment. Key problems include equally participating in meetings, coping with background noise and discrimination, keeping up to date with informal conversations, negotiating reasonable communication accommodations and being able to participate in spontaneous but critical workplace conversations.<sup>31</sup>

4.21 National Disability Services suggested that with the help of appropriate technological assistance and the support that disability employment services for

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26 Deafness Forum Australia, *Submission 34*, pp 21-22.

27 Access Economics, 2006.

28 Professor Jennie Brand Miller, New South Wales (NSW), quoted in Deafness Forum Australia, *Submission 34*, p. 22.

29 Margaret, aged 62, Melbourne, quoted in Deafness Forum Australia, *Submission 34*, p. 22.

30 New South Wales (NSW) Health, *Submission 167*, p. 17; Access Economics, 2006, p. 81; National Disability Services, *Submission 46*, pp 1, 3.

31 Access Economics, 2006, p. 82 (citing Hogan A, Giles E, Stewart M, 2002, 'It's a whole new ball game: patient perceived employment benefits related to cochlear implants', *Cochlear Implants International* 3(1): 56-69).

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people who are hearing impaired, challenges in the workplaces can be overcome.<sup>32</sup> However, further research is necessary to clearly identify the current employment participation and economic productivity of people who are hearing impaired, the extent of their difficulties within the workplace and, subsequently, the development of innovative and effective ways to overcome these challenges and ensure that the economic productivity of those who are hearing impaired is improved.<sup>33</sup>

### ***Imprisonment***

4.22 The committee heard some evidence which suggests that people with a hearing impairment experience higher rates of imprisonment than other Australians.<sup>34</sup> The causal relationship between hearing loss and criminal activity is that hearing loss can impact on an individual's education, and importantly on their language and behaviour development. These factors then become part of a complex pattern of behaviours in individuals, sometimes including social dislocation and high levels of unemployment, which may contribute to higher levels of engagement with the criminal justice system.<sup>35</sup>

4.23 The particular criminal justice system issues affecting Indigenous people with a hearing impairment are discussed in detail at chapter eight.

### ***Children and education***

4.24 It is crucial that children who have been diagnosed with hearing loss in the early stages of life receive appropriate support and intervention if their language and communication skills are to develop at a comparable rate to children who do not have hearing impairment.<sup>36</sup> It has been shown that children who have had their hearing impairment diagnosed in their first six months develop language skills at 80 per cent of the rate of non-hearing impaired children, compared to 60 per cent for children diagnosed after 6 months.<sup>37</sup> Early results of the Longitudinal Outcomes of Children with a Hearing Impairment (LOCHI) study also show the importance of early intervention in language and communication skills development later in life.<sup>38</sup>

4.25 Professor Richard Dowell remarked on the nature of language acquisition for children who are born deaf:

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32 National Disability Services, *Submission 46*, p. 3.

33 NSW Health, *Submission 167*, p. 19; Access Economics, 2006, pp 46, 82.

34 See for example Better Hearing Australia, *Submission 7*, p. 6; Hearing Link Tasmania, *Submission 144*, [p. 3]; Australian Hearing, *Submission 38*, p. 9; Ms Ann Jacobs, *Committee Hansard*, 9 December 2009, p. 54.

35 Australian Hearing, *Submission 38*, p. 9.

36 DOHA, *Submission 54*, p. 21.

37 DOHA, *Submission 54*, p. 21.

38 DOHA, *Submission 54*, p. 21.

For children born deaf they may never learn to speak intelligibly and often do not develop language skills to a level beyond early primary school...This is the real educational problem for hearing impaired children – their language skills lag continually behind their hearing peers. This gap grows over time such that very few are in a position to gain an adequate secondary education.<sup>39</sup>

4.26 A number of parents of hearing impaired children told the committee that they had worked hard to ensure their children acquired and developed language and communication skills at a comparable rate with other children.<sup>40</sup>

4.27 The committee notes in chapter five that 95 per cent of children born with hearing loss are born to parents who have no experience of deafness, and who do not have a hearing loss themselves.

4.28 The committee received many submissions from educational experts and parents on the range of pedagogical approaches for teaching deaf children in Australia. Hear The Mums stated that the approach a family takes will depend on their decision about the communication options they want for their child:

Parents initially need to decide the mode of communication they believe is the most appropriate for their family and their child. The choices that are generally made are Auditory-Verbal, Auditory-Oral, Auslan, Total Communication or Bilingual – sign/spoken language. The mode of communication chosen will then often determine the early intervention program that the family will enrol in as most organisations specialise in providing a specific type of intervention.<sup>41</sup>

4.29 The committee heard evidence that as technology is currently available to allow the vast majority of children with severe hearing impairment the ability to hear, it should be the first choice for hearing impaired children. While the success of technologies such as cochlear implants is undoubted, other witnesses argued that there should be an absolute choice for families.

4.30 Mr Christopher Rehn, Sydney Cochlear Implant Centre, commented that while he supported funding for universal access to cochlear implants, the decision for a child to have implants, requires families to fully understand the procedures and outcomes. Mr Rehn went on to state:

We really do believe that in partnering up with the family that the family make an informed decision and that informed decision is about the choices for the child's life, irrespective of what that looks like.<sup>42</sup>

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39 University of Melbourne Audiology and Speech Sciences, *Submission 9*, pp 2-3.

40 See for example Mrs Mary Ryan, *Submission 133*, [p. 1].

41 Hear The Mums, *Submission 71*, [p. 2].

42 Mr Christopher Rehn, *Committee Hansard*, 13 October 2009, p. 10.

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4.31 Ms Leonie Jackson also argued that there was a need for choice and that all options should be considered by families as 'there is no one size fits all for hearing impaired children'. Ms Jackson stated:

It is my very strong belief that there is not one approach that will suit everyone. As a country, we need to stop promoting that one approach is better than another. We need to promote the fact that cochlear implants are not necessarily better than hearing aids; nor is it the other way around, in fact. All deaf children are individuals, so we need to think about what the best fit for that child is. It may be that neither a cochlear implant nor hearing aids are the best fit for that child; it may be better for them to learn signing so that they are able to communicate.<sup>43</sup>

4.32 Mr Alex Jones provided the committee with this comment on the need to focus on the individual child:

So it is about the approach and fitting best with each individual. You cannot have one size fitting all. You cannot just close your eyes and hope for the best; you absolutely cannot. You need to look at each individual child and what their needs are, where they are living, how their parents can support.<sup>44</sup>

4.33 Ms Jackson commented that perhaps hearing impaired children should use both speech and sign language. However, it was noted that services are not always available in schools and that some governments were not supporting the use of Auslan in education. For example, Ms Kate Nelson, Deaf Society of NSW, stated that the NSW education department 'is quite actively dismissive of Auslan and they are focusing on mainstreaming deaf children'. In addition, because of the advances in technology, many believe that Auslan is no longer needed. Ms Nelson went on to argue that this will 'never happen' and that children should be able to access the school curriculum via Auslan as technology will not be the solution for all children.<sup>45</sup>

4.34 Ms Nelson noted that if specialist staff in schools do not have the skills then language development, whether it be in English or Auslan, will be further delayed. Ms Nelson commented:

As a deaf child, obviously your access to English is limited or possibly nonexistent. Sign language is a more obvious language. It is a visual language and it is the way you would be able to learn language. By having a proficient level of sign language, Auslan, you are then able to learn English. Later on in life, students have the choice of using either or both of these languages. These children are falling through the gaps. That is probably the best way of saying it.<sup>46</sup>

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43 Ms Leonie Jackson, *Committee Hansard*, 13 October 2009, p. 61.

44 Mr Alex Jones, *Committee Hansard*, 13 October 2009, p. 62.

45 Ms Kate Nelson, Deaf Australia New South Wales (NSW), *Committee Hansard*, November 2009, p. 31. 11

46 Ms Kate Nelson, Deaf Australia (NSW), *Committee Hansard*, 11 November 2009, p. 32.

4.35 The Royal Institute for Deaf and Blind Children (RIDBC) drew to the committee's attention changes in the training for teachers of deaf and hearing impaired children. Whilst teachers need to know more about working with deaf children than ever before, the RIDBC stated that the qualification requirements for teachers have become less intensive and more generalised. Among other changes, the number of hours of dedicated coursework required by trainee teachers of children with hearing loss has declined from 325 in 1989 to 144 now.<sup>47</sup> This does not compare favourably with international practice, as RIDBC commented:

Notably in that same period of time, the average contact hours dedicated to education of the deaf in programs in North America has risen. The benchmark program at Washington University, for example, requires 660 contact hours and the program at York University in Canada requires 432 contact hours in deafness and hearing impairment related coursework.<sup>48</sup>

4.36 The committee received evidence that children who are hearing impaired receive in-classroom support to participate in mainstream schooling, however there was concern expressed that the availability of teacher's aides to assist these children is not sufficient, and that children should be afforded more support.<sup>49</sup>

4.37 The social experiences of children with hearing loss in a hearing world can be confusing and isolating, as several witnesses testified:

...it is heart breaking to see my [profoundly deaf] daughter being excluded from conversations because it is so difficult [for her] to understand through noisy situations, and situations where groups gather.<sup>50</sup>

I was born with a hearing loss and fitted [with hearing aids] at an early age, however going to a mainstream primary and secondary school meant there was a lack of support to cope academically and socially. There was no education given to other hearing students to understand and accept how to deal with peers who have a hearing loss. Being the only one throughout my schooling days meant I was constantly bullied and depressed.<sup>51</sup>

4.38 The impact of hearing loss on individual children was often raised by witnesses and submitters. A frequent comment heard by the committee was that people who suffered from undiagnosed hearing loss at school felt stupid or dumb. The following description is typical:

[My hearing impaired son] would come home and tell me that he was stupid...it was very emotional to have a 12-year-old kid tell you that they are dumb, that they are stupid and that they should not be alive. That was

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47 Royal Institute for Deaf and Blind Children (RIDBC), *Submission 67*, p. 10.

48 RIDBC, *Submission 67*, p. 10.

49 See for example, Ms Roslee Fyfe, *Submission 121*, [p. 1], Ms Yvonne Batterham, *Submission 129*, p. 5.

50 Mrs Mary Ryan, *Submission 133*, [p. 3].

51 Ms Susanna Carter, *Submission 102*, [p. 1].

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my experience but I have found out that it is also the experience in a lot of other communities with children who have that. They come back and say that they are dumb and they are stupid...He did not want to go to school. He thought the teachers hated him. It was simply because they would yell at him when he did not understand what they said, but they did not realise that the more they yelled at him the less he understood. He was in a vicious cycle that made him become depressed.<sup>52</sup>

### **Costs**

4.39 The committee notes that the broader issue of economic costs to the Australian economy are discussed at chapter three of this report. Whilst the focus in this section is on the financial costs of hearing impairment to individual people, some duplication was unavoidable.

4.40 Many submitters and witnesses raised with the committee the cost to individuals of hearing impairment. Of particular concern was the lack of funding and insurance options available to non-Office of Hearing Services (OHS) clients. Many of the issues connected with eligibility for OHS services are dealt with in chapter five of this report.

4.41 The cost of hearing aids is between \$3,000 and \$10,000 per pair.<sup>53</sup> Many submitters remarked on the financial hardship caused by having to meet these costs every few years. For example:

When I was unemployed and a student, I had to buy new hearing aids for \$8,000, and I had to get a personal loan to pay for it, and then I had to go on Centrelink payments as well, because I had trouble paying my rent.<sup>54</sup>

4.42 The impact of these costs is particularly felt by young people, who are often low income earners, as is neatly illustrated by this remark from a young Canberra woman: 'My friends are saving up for an overseas trip. I am saving up for my next hearing aids'.<sup>55</sup>

4.43 Some people commented on the perpetual strain of worrying about the cost of replacing damaged hearing aids. In Ms Hilda Sutcliffe's words: 'I live in fear of the day my hearing aids die and I can't afford to have them replaced'.<sup>56</sup>

4.44 Maureen from Victoria stated that the cost of buying new hearing aids means she can only afford one aid, though she really needs two to hear well:

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52 Ms Sandra Nelson, *Committee Hansard*, 16 February 2010, p. 74.

53 Australian Hearing, *Submission 38*, pp 13-14.

54 Ms Kate Locke, *Submission 82*, [p. 1].

55 Kirsten, quoted in Deafness Forum of Australia, *Submission 34*, p. 27.

56 Ms Hilda Sutcliffe, *Submission 118*, [p. 1].

It is a recurrent cost every four to five years for the replacement of a hearing aid. I really need two, but at \$4,000+ for an aid, I function on a single hearing aid, which I use for approximately 18 hours of every day. Without the aid, I hear absolutely nothing as I have a severe to profound loss, as a result of pre-lingual measles. Added to this is the cost of batteries and it is expensive having to pay for having what is termed a disability.<sup>57</sup>

4.45 Evidence was provided in connection to the high cost of maintaining and replacing cochlear implant speech processors. This issue is discussed in detail below.

### ***Other costs of living for people with a hearing impairment***

4.46 Additional costs of living for people with a hearing impairment are not limited to purchasing aids or processors. The following comment captures a sense of the many other costs that non-hearing impaired Australians do not have to factor into their lives:

I have 5 children all of whom have been afforded the same educational and social opportunities...My deaf 21 year old son, however, must always factor extra 'disability' costs into his life – he must always have funds available for regular audiological and ENT assessment, hearing aid maintenance and replacement, hearing aid batteries and essential safety devices. It will always cost him more than his siblings to work 'normally'.<sup>58</sup>

4.47 The cost of maintaining hearing aids, including batteries, can also mount up. These costs are subsidised for OHS clients, who pay a small annual maintenance fee.<sup>59</sup> For others, the costs of maintenance can be significant:

...batteries for the Cochlear Implant can be an expensive item...Currently I use 3 batteries every 6 days and a packet of 4 batteries can be up to \$9 [\$400 per year].<sup>60</sup>

4.48 Numerous submissions commented on the costs of hearing assistive devices to individuals. The sorts of devices that people with a hearing impairment may need day to day include specialised alarm systems, visual smoke alarms, teletype phones, captioning decoders for televisions, visual doorbells, special alarm clocks, and FM systems.<sup>61</sup>

### ***Private Health Insurance and hearing devices***

4.49 People with a hearing impairment provided evidence to the committee that some cover for hearing aids, including speech processors, is available under private

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57 Maureen, quoted in Deafness Forum of Australia, *Submission 34*, p. 29.

58 Quoted in the Australian and New Zealand Parents of Deaf Children (ANZPOD), *Submission 24*, pp 5-6.

59 Australian Hearing, *Submission 38*, p. 12.

60 Ms Nikki Haseldine, *Submission 165*, [p.1].

61 DOHA, *Submission 54*, p. 50.

health insurance. Cover for hearing devices is available under some ancillary (or 'extras') packages, and the level of cover varies according to the health insurance provider and the level of cover taken out by the individual. The committee also notes that private health insurance extras packages include some level of cover on a range of health items in addition to hearing devices, including such things as dental, optical and health management costs.

4.50 Numerous submissions commented that they perceived the level of benefit available for hearing devices to be very low when compared to the costs. Mr Isaac Marcus elaborated on this in his submission:

...[my] current level of health cover does not provide for hearing aids. My private health insurer advises that the next level of cover which provides for hearing aids costs an additional \$40 per fortnight. The coverage extends to \$1,000 per hearing aid, with a three-year waiting period for making a claim and three-year intervals. While the next level of cover also results in some level of increases for other extras such as major dental, optical and physiotherapy, the benefit for hearing aids does not justify the increase in premium payments. An additional \$40 per week over three years amounts to \$3,120 for possibly claiming \$2,000.<sup>62</sup>

4.51 Another submission remarked that the benefits payable for hearing devices under private health insurance do not justify the cost of premiums:

...we have a drought-stricken farm and [hearing aids are] just another cost we simply have to shoulder. Private health insurance for hearing aids makes it very hard to claim on extra benefits, and so little is paid back we didn't even bother trying.<sup>63</sup>

4.52 DOHA advised the committee that private health insurers are under no obligation to provide cover for hearing aids. Private health insurers may offer some coverage for hearing aids, however the amount of cover is a decision for the insurer.<sup>64</sup>

4.53 There are some circumstances where the private health insurer has an obligation to provide coverage for cochlear implant speech processors, such as when the processor was provided as part of a hospital treatment which was covered by the private health insurance policy. However in other circumstances any coverage of processors will depend on a person's insurer and the level of cover they have taken out.<sup>65</sup>

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62 Mr Isaac Marcus, *Submission 162*, [p. 1].

63 Ms Janice Evans, *Submission 132*, [p. 1].

64 DOHA, answer to question on notice 19 March 2010 (received 6 May 2010), Question 21.

65 DOHA, answer to question on notice 19 March 2010 (received 6 May 2010), Question 21.

## The impact of hearing loss on communities

4.54 It was noted above that hearing impairment affects a person's ability to communicate, and the impact of this for individuals can affect their mental and physical wellbeing. The impact on the broader Australian community is also great, as measured by reduced contribution and increased reliance on social welfare support.<sup>66</sup>

4.55 As has been mentioned above, the economic impact of hearing loss on the broader community has been estimated by Access Economics at nearly \$12 billion per year. This cost was reckoned in terms of lost earnings due to early retirement and workplace separation, cost of carers, foregone taxation revenue, health system costs, education support and aids, and increased reliance on social welfare.<sup>67</sup> The 2003 Disability Census suggests that 81 per cent of people with a hearing loss receive welfare benefits.<sup>68</sup>

4.56 Evidence before the committee is that one effect of people with hearing loss withdrawing from socialising and employment is that the community as a whole could be missing out on their contributions: 'Systematic exclusion of people who cannot hear from Australian society means that we all miss out on the potential contributions of these talented individuals...'<sup>69</sup>

4.57 The level of awareness about hearing loss among both people with a hearing impairment themselves and all Australians is low. As Better Hearing Australia commented in their submission:

Despite being the most widespread disability in the community, hearing loss is also the most misunderstood by the many Australians who have a hearing loss. Far too many hearing impaired Australians simply do not know or take the trouble to discover the support services that are available to help them. Rehabilitation services and assistive listening devices can greatly improve quality of life and assist in managing hearing loss. Families, friends and colleagues are also often unaware of the implications and damaging effect of hearing loss.<sup>70</sup>

4.58 Australian and New Zealand Parents of Deaf Children (ANZPOD) noted the impact hearing impairment can have on family members:

Hearing impacts on the whole family not just the individual with the loss. There is a higher level of marriage breakdown where parents are dealing with the emotional and financial implications of raising a child with a disability. Similarly siblings of children with a hearing loss often resent the

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66 DOHA, *Submission 54*, p. 23.

67 Access Economics, 2006.

68 Cited in DOHA, *Submission 54*, p. 23; see also Access Economics, 2006, p. 66.

69 Access Innovation Media, *Submission 44*, p. 5.

70 Better Hearing Australia, *Submission 7*, p. 3.

extra time and attention provided to their sibling which can lead to behavioural issues.<sup>71</sup>

4.59 Several submitters provided the committee with a copy of the prose piece 'Welcome to Holland' by US writer Emily Perl Kingsley. The piece was written about the author's experience with her son Jason, who was born with Down Syndrome, yet many submitters felt that it could just as easily apply to families of a baby diagnosed with a hearing loss. 'Welcome to Holland' is reproduced in full below.

### **Welcome to Holland**

**By Emily Perl Kingsley**

I am often asked to describe the experience of raising a child with a disability - to try to help people who have not shared that unique experience to understand it, to imagine how it would feel. It's like this.....

When you're going to have a baby, it's like planning a fabulous vacation trip - to Italy. You buy a bunch of guide books and make your wonderful plans. The Coliseum. The Michelangelo David. The gondolas in Venice. You may learn some handy phrases in Italian. It's all very exciting.

After months of eager anticipation, the day finally arrives. You pack your bags and off you go. Several hours later, the plane lands. The stewardess comes in and says, "Welcome to Holland."

"Holland?!?" you say. "What do you mean Holland?? I signed up for Italy! I'm supposed to be in Italy. All my life I've dreamed of going to Italy."

But there's been a change in the flight plan. They've landed in Holland and there you must stay. The important thing is that they haven't taken you to a horrible, disgusting, filthy place, full of pestilence, famine and disease. It's just a different place.

So you must go out and buy new guide books. And you must learn a whole new language. And you will meet a whole new group of people you would never have met.

It's just a different place. It's slower-paced than Italy, less flashy than Italy. But after you've been there for a while and you catch your breath, you look around...and you begin to notice that Holland has windmills... and Holland has tulips. Holland even has Rembrandts.

But everyone you know is busy coming and going from Italy...and they're all bragging about what a wonderful time they had there. And for the rest of your life, you will say "Yes, that's where I was supposed to go. That's what I had planned."

And the pain of that will never, ever, ever, ever go away..because the loss of that dream is a very very significant loss. But...if you spend your life mourning the fact that you didn't get to Italy, you may never be free to enjoy the very special, the very lovely things...about Holland.

Provided by North Shore Deaf Children's Association, *Submission 39*.

4.60 Many submissions referred to hearing impairment as an 'invisible' disability in that, unlike the vision impaired or the physically disabled, hearing impairment is not obvious to the casual observer. However Deaf Children Australia argued that the 'invisibility' of people with a hearing impairment in the Australian community may result in part from lack of effort by the hearing community to engage:

It would appear that exclusion of people with a hearing loss is implicitly accepted as part of Australian community life. For example: Federal state and local Governments continue to produce information on DVDs without captions, Parliaments meet without ongoing provision for interpreters and most mainstream community events are neither Auslan interpreted or captioned. Other examples include public transport systems failing to address the fact that people standing on the train platform may have a hearing loss and therefore not hear public announcements and cinemas not allowing the screening of captions. All of these are simple examples of the widespread community exclusion of people with a hearing loss. The exclusion of children, young people and adults with a hearing loss appears to be widely accepted and endemic.<sup>72</sup>

### **Committee comment**

4.61 The committee understands that with hearing impairment projected to grow along with Australia's ageing population, it is crucial to make changes now that will improve the way people with a hearing impairment are supported before the system has to manage the increased volume of demand for services and support.

4.62 The committee was moved by the individual experiences which hearing impaired Australians shared during this inquiry. Their sense of disempowerment and isolation came through clearly from the evidence.

4.63 The committee was concerned at the psychological and other health impacts of hearing loss for Australians, and accepts that the ability to communicate with others is central to a person's health and wellbeing.

4.64 The committee heard about the different approaches to communication and education available for children with severe hearing impairment, and believes that it is important that parents be informed about what those choices are, and will be equally supported regardless of the choice they may make for their child.

4.65 The committee is concerned at evidence about a decline in training standards for teachers of children with hearing loss, and agrees with the RIDBC that a more sophisticated understanding of hearing loss education should be reflected in specialist teacher preparation programs. The committee believes that there is a need for agreed Australian national qualification standards for teachers of children with hearing impairment, and these should be benchmarked against international best practice.

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72 Deaf Children Australia, *Submission 176*, [p. 13].

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4.66 The committee is concerned by evidence which suggests that children with hearing impairment in mainstream classrooms may not be receiving adequate levels of in-class support. It would be valuable for states and territories to review support arrangements, to ensure children in mainstream classrooms are given every chance of success.

4.67 The committee notes the tremendous effort required by families seeking to support their children successfully through their education and on to fulfilling lives.

4.68 The committee notes that hearing loss may lead to higher engagement with the criminal justice system. Recommendations have been made in chapter eight around this issue.

4.69 Hearing impairment results in a cost burden for some members of our society, often at very vulnerable points in their life. Private health insurance cover is not enough to completely offset the high cost of hearing devices, which need replacing regularly. The committee has made recommendations in chapter five which aim to expand access to Australian Government Hearing Services Program support.

4.70 People with a hearing impairment leave the workforce earlier, earn less money, and are more likely to be unemployed than people without hearing impairment. The committee notes that the largest economic cost of hearing impairment is due to lost productivity. The committee believes that the Australian Government is well placed to lead development of a long term policy that seeks to better support people with a hearing impairment in the workplace, to the benefit of all Australians.

## **Recommendations**

### **Recommendation 2**

**4.71 The committee recommends that the Department of Education, Employment and Workplace Relations engage with state and territory jurisdictions, and with employment and hearing loss peak bodies, to develop a 10 year strategy to better support, engage and retain hearing impaired Australians in the workforce. The strategy should be made publicly available, and detail annual performance targets and the level of resources committed to achieving them.**

### **Recommendation 3**

**4.72 The committee recommends that the Department of Education, Employment and Workplace Relations engages with state and territory education systems, higher education providers of training for teachers of children with hearing impairment, and major stakeholders (including the Royal Institute for Deaf and Blind Children and parent representative bodies), to develop and implement an agreed national qualification standard for teachers of children with hearing impairment. This standard is to be benchmarked against international best practice.**



## CHAPTER 5

### **ADEQUACY OF ACCESS TO HEARING SERVICES**

The family are dreading Nicole turning 21 when she will lose Australian Hearing support...

Quoted in Quota International of the Leisure Coast, *Submission 22*, p. 2.

#### **Introduction**

5.1 This chapter examines the adequacy of access to hearing services in Australia, including assessment and support services, and hearing technologies.

5.2 The issue of access is at the heart of everyday challenges for people with a hearing impairment. From access to audiological and clinical help, to obtaining the most appropriate assistive technology, to watching television, the committee understands that access issues of all sorts are never far from the consciousness of people with a hearing impairment.

5.3 The single most common issue raised with the committee during this inquiry was the eligibility criteria for Australian Government Hearing Services Program services and support, and in particular the eligibility cut off age of twenty-one years. The committee heard evidence of the distress and financial hardship this policy can cause, as well as other unintended consequences, such as people having to go without hearing aids and specialist audiological support.

5.4 Evidence was presented to the inquiry from both hearing health practitioners and their clients about accessibility to, and quality standards of, hearing assessments in Australia. The committee also heard concerns about the level of support that is available to assist people with a hearing impairment and their families adjust to life with hearing loss.

5.5 The committee heard about the issues some sectors of the community have experienced accessing the different technologies that are available to hearing impaired Australians. Evidence was also raised about the difficulties people with a hearing impairment sometimes have accessing services which other Australians take for granted, such as television and movies.

#### **Access to hearing services**

##### ***Eligibility for Australian Government Hearing Services Program support***

5.6 As has already been noted, the issue of access to government services, and particularly to Australian Government hearing services, was of interest to most people making submissions to this inquiry.

5.7 The Australian Government provides hearing services through the Office of Hearing Services (OHS). Support is available to eligible Australians under the Hearing Services (Voucher) Payments and the Community Service Obligation (CSO) programs.<sup>1</sup>

## **Australian Government Hearing Services Program**

### **Hearing Services (Voucher) Payments:**

Payments are made to hearing service providers for the delivery of services under the voucher system to eligible clients. The services include hearing assessments, the cost of the hearing device and its fitting, and the government contribution to the maintenance and repair of hearing devices.

Eligibility requirements to receive the services are as follows:

Australian Citizens and Permanent Residents 21 years or older and:

- the holder of a Centrelink or Department of Veterans Affairs (DVA) Pensioner Concession Card;
- the holder of a Gold Repatriation Health Card (DVA) issued for all conditions;
- receiving Sickness Allowance from Centrelink;
- the holder of a White Repatriation Health Card (DVA) issued for conditions that include hearing loss;
- a dependent of a person in one of the above categories;
- a member of the Australian Defence Force; or
- undergoing an Australian Government funded vocational rehabilitation service and referred by their service provider.

### **Community Service Obligation (CSO):**

Funds are allocated to Australian Hearing for the delivery of services under the CSO to meet the hearing needs of special needs groups. The CSO program, including National Acoustic Laboratories (NAL), is provided by Australian Hearing under an agreement with the Australian Government.<sup>2</sup>

Clients under these categories receive the same services as those provided to voucher clients but receive additional services to address their specific needs.

Special needs groups include:

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1 Department of Health and Ageing (DOHA), *Submission 54*, pp 32-38.

2 DOHA, *Submission 54*, p. 35.

- all children and young adults under 21 years of age (including replacement of cochlear implant speech processors);
- eligible complex adult clients;
- eligible Indigenous clients;
- eligible clients who live in remote areas; and
- an Aboriginal person or Torres Strait Islander who is over 50 years; or a participant in a Community Development Employment Projects Program.

Program details from the Department of Health and Ageing website, viewed 8 April 2010, <http://www.health.gov.au/hear>

5.8 State and territory governments provide some hearing health services, such as screening, prevention activities, hearing assessments through community health centres, workers' compensation services and cochlear implantation at public hospitals.<sup>3</sup>

### ***Eligibility for Australian Government Hearing Services among 21 to 65 year olds***

5.9 Many submitters raised in evidence the fact that Australian Government Hearing Services Program support is available to all Australians up to 21 years of age and then, with the exception of people living on a Disability Support Pension, they are cut off. The committee heard that approximately 700 people lose their eligibility each year when they turn 21.<sup>4</sup>

5.10 The general view expressed to the committee could be summarised by this submitter:

[For people aged between 21 and 65 who are ineligible for Office of Hearing Services support] hearing aids are treated like luxury devices...they are not, they are essential requirements...If a pair of glasses cost the same as hearing aids, would the [eligibility] policy be the same?<sup>5</sup>

5.11 The committee heard about a number of issues facing former clients of Australian Hearing when they turn 21. Australian and New Zealand Parents of Deaf Children (ANZPOD) explained in their submission that the nature of private audiological practice is different to that of government services:

[Former Australian Hearing clients turning 21] need to find an audiologist in the private sector who understands the issues of congenital deafness and has the knowledge and skills in the complexities of their needs. Most

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3 DOHA, *Submission 54*, p. 8.

4 Let Us Hear, *Submission 20*, p. 4.

5 Name Withheld, *Submission 78*, [p. 1].

private audiologists are experienced in acquired hearing loss and the appropriate audiologist is almost impossible for our children to find.<sup>6</sup>

5.12 The experience of another submitter also picked up on this point:

[When I turned 21] I enquired from all my deaf friends of audiologists they used, but most people went without the support of an audiologist for as long as possible after losing the services of [Australian Hearing].<sup>7</sup>

5.13 One former Australian Hearing client related her feelings on losing the support of Australian Hearing at age 21:

Suddenly at the age of 21 years old, I found it difficult to find the means to obtain batteries and maintaining my cochlear implant equipment on...my own. A piece of rechargeable cochlear implant battery can cost up to \$500 or a couple of hundreds if I need to replace a part...At only 23 years old, this is a lifelong commitment, and in order to remain integrated with the Hearing world, it is expensive and perhaps a little unfair that I should have to pay when a normal hearing person does not have to deal with those emotional and financial issues.<sup>8</sup>

5.14 Another person shared her experiences:

Suddenly at the age of 21, just when I was unemployed and studying full time at university, I was told I could no longer get any services through Australian Hearing; I developed extremely low self esteem and avoided social situations. I was constantly worried and panicky which affected those around me such as my parents and friends. When my hearing aids broke during crucial situations I felt like giving up because there was no one to turn to and no money to cover the cost of new ones.<sup>9</sup>

5.15 The greatest challenge facing 21 year olds is that they are not yet established in their careers, and indeed are often studying or in low paid jobs. Losing access to Australian Hearing support could have long term consequences for individuals and for society at large, as one witness told the committee:

I think it [i.e. cutting off Australian Hearing services at age 21] constitutes a disservice to Australia and the Australian community simply because, after all, if people cannot participate effectively in the workplace then you have lost production, lost opportunities and lost ability to function in the wider community. This has a very significant flow-on effect.<sup>10</sup>

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6 Australian and New Zealand Parents of Deaf Children (ANZPOD), *Submission 24*, p. 7; see also Parents of Hearing Impaired of South Australia (PHISA), *Submission 25*, [p. 2].

7 Ms Julie-Anne Kiyega, *Submission 88*, [p. 1].

8 Ms Adelaide Ryan, *Submission 100*, [p. 1].

9 Ms Susanna Carter, *Submission 102*, [p. 1].

10 Mr Peter Lindley, *Committee Hansard*, 7 December 2009, p. 28.

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5.16 The Shepherd Centre was passionate in their remarks to the committee on this issue:

If this committee can achieve anything the one group that needs really special attention—and you are beginning to hear it—is young adults who go through Australian Hearing until they are 21 and are then left to their own devices to find their way through their education and their vocation unaided in terms of any financial support. If they had a degree of hearing loss that warranted considerable support from Australian Hearing for 21 years then it seems to me to follow that they need some support to get themselves established in their careers. It seems to me to be a travesty that these children are unable to get any support whatsoever unless they end up as a pensioner, which is not really where you want them to be...It is in society's interest to keep those young adults performing to their peak and self-realising.<sup>11</sup>

5.17 People with hearing loss aged between 21 and 65 who are not eligible for Australian Government Hearing Services Program support have the option of taking out private health insurance to help meet the costs of purchasing and maintaining hearing devices. The committee noted in chapter four that the cost of private health insurance for hearing devices is high and benefits are perceived to be low, which does little to ease the cost issues faced by young people and retirees.<sup>12</sup>

5.18 The committee heard from Mr Tony Abrahams that a no-fault National Disability Insurance Scheme could hold part of the answer for hearing impaired Australians who are ineligible for Australian Government support:

The basic principles behind a no-fault national disability insurance scheme are that we as a community would provide any individual with impairment...a voucher to exchange for access services that that individual was able to choose from a free market, [which] will enable them to participate in the workforce, get a job, earn an income, get off the disability support pension and pay tax—and they will pay it back.<sup>13</sup>

5.19 Evidence suggests that many former clients of Australian Hearing would be willing to pay a fee for Australian Hearing services after they turn 21 to continue the quality of care and the professional relationships they had built up, sometimes over their lifetime.<sup>14</sup>

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11 Ms Anthea Green, The Shepherd Centre, *Committee Hansard*, 12 October 2009, p. 72.

12 See for example Ms Glenda Froyland, *Submission 96*, p. [1]; and Mr Isaac Marcus, *Submission 162*, [p. 1].

13 Mr Tony Abrahams, CEO, Ai Media, *Committee Hansard*, 7 December 2009, p. 47. The committee notes that the Productivity Commission will report on the feasibility of a no-fault National Disability Insurance Scheme in July 2011. For further information go to <http://www.pc.gov.au/projects/inquiry/disability-support/terms-of-reference>

14 See Let Us Hear, *Submission 20*, [p. 1]; Ms Lily Kordic, *Submission 91*, [p. 1]; and Mr Michael Lockrey, *Submission 98*, [p. 1].

5.20 The committee would like to note that many people testified to the high quality of service they and their families receive from Australian Hearing, and that their issue was with eligibility conditions and not the service itself. The following comments from one individual submission are typical:

...I cannot speak highly enough of the hearing services offered to [my 15 year old daughter] as a child living in Melbourne. At all points along the pathway from her diagnosis of a profound hearing loss just before her first birthday until now, we have been helped by caring professionals and supported financially by the Australian Government through Australian Hearing and the Cochlear Implant Clinic at the Royal Victorian Eye and Ear Hospital.<sup>15</sup>

5.21 The committee heard evidence that increasing access to OHS support for older workers would have economic benefits for those individuals and for the country in general. The Hearing Care Industry Association (HCIA) noted that employment rates for people with a hearing impairment between the ages of 45 and 65 are up to 20 per cent lower than for non-hearing people.<sup>16</sup> As has been noted in chapter three of this report, lost earnings is the biggest single cost of hearing impairment to Australia at around \$6.7 billion per year.<sup>17</sup>

5.22 HCIA added that:

If Australia were to move towards world's best practice, it should examine uncoupling access to hearing services and the pension age, so that people in the 45 to 64 age group (or part of that age group) could access hearing services at a time when they are highly motivated to use such services and thus remain productive for as long as they can.<sup>18</sup>

5.23 The National Seniors Association (NSA) also argued that lost productivity among older Australians could be eased if eligibility to OHS support was extended to those younger than 65 years,<sup>19</sup> as did Services for Australian Rural and Remote Allied Health (SARRAH)<sup>20</sup> and Deafness Forum of Australia.<sup>21</sup>

### ***Access to hearing services in regional and remote areas***

5.24 Another prominent issue arising from the evidence in regard to accessing hearing services was the difficulty of accessing services outside urban centres. The

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15 Ms Barbara Hockridge, *Submission 92*, [p. 1].

16 Hearing Care Industry Association (HCIA), *Submission 62*, p. 7.

17 Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*, February 2006, p. 67.

18 HCIA, *Submission 62*, p. 9.

19 National Seniors Association (NSA), *Submission 175*, p. 6.

20 Services for Australian Rural and Remote Allied Health (SARRAH), *Submission 29*, p. 8.

21 Deafness Forum of Australia, *Submission 34*, p. 12.

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committee heard evidence that one of the main obstacles to provision of hearing services in regional and remote areas was attracting and retaining qualified staff. Connect Hearing claimed in their submission that:

The spread of hearing services is unbalanced between regional and metropolitan areas. This is in part due to the difficulties attracting and retaining hearing care professionals in regional and rural areas and also due to socio-economic factors making servicing rural areas less attractive to hearing service providers. Within Connect Hearing, there is currently a three month waiting list for services in regional New South Wales (NSW), but in Sydney 95 per cent of services could be provided within 5 working days.<sup>22</sup>

**5.25** Attracting and retaining qualified staff is a major issue in Central Australia, according to audiologist Rebecca Allnutt:

[Audiology] is a master's degree now. It is two years and it is very expensive—when I did it, it was only one year and it was a postgrad degree. There are very limited places, and new grads are tending to stay in the cities. We are competing with a very productive private market that [is] offering new graduates a lot of money to stay in town. We are dealing with hearing aid companies that are very wealthy. Trying to get young grads to come out and work here [i.e. Central Australia], we are finding very difficult.<sup>23</sup>

**5.26** Dr Stuart Miller, President of the Australian Society of Otolaryngology Head and Neck Surgery (ASOHNS) noted that attracting Ear, Nose and Throat (ENT) surgeons and other hearing health professionals to regional areas should be a priority for policy makers.<sup>24</sup> Professor Robert Cowan of the HEARING Cooperative Research Centre (CRC) in Victoria agreed that placing qualified audiologists in regional areas is an issue:

...part of the problem is the regional disparity. This is a phenomenon in Australia: everyone wants to work in the cities; no-one wants to work in the country. Rural audiology services cry out for people. If any funding was going to go to scholarships for people to train with audiologists, I would think they should then be linked to country service.<sup>25</sup>

**5.27** Farmsafe Australia noted that public hearing health services in remote and rural areas focus on children and Indigenous Australians. Whilst acknowledging that this focus is 'important and appropriate', Farmsafe pointed out that 'it has left a

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22 Connect Hearing, *Submission 23*, [p. 2].

23 Mrs Rebecca Allnutt, *Committee Hansard*, 18 February 2010, p. 14.

24 Dr Stuart Miller, President of the Australian Society of Otolaryngology Head and Neck Surgery (ASOHNS), *Committee Hansard*, 9 December 2009, p. 1.

25 Professor Robert Cowan, CEO HEARING Cooperative Research Centre (CRC), *Committee Hansard*, 8 December 2009, p. 12.

considerable cohort of individuals within the agricultural sector and rural communities more broadly, under serviced.<sup>26</sup>

5.28 While there have been some assessment programs for the agricultural sector in New South Wales (NSW), South Australia, Tasmania and Queensland, only NSW through the Rural Noise Injury Prevention Program is currently functional. Farmsafe Australia proposed that the extension of such a program is crucial to efforts to prevent hearing loss in the agriculture sector, and that a core feature of this program must be the provision of screening and preventive advice in localities that are farmer-friendly, such as agricultural shows.<sup>27</sup> Further, the Hearing Impaired and Deaf Kindred Organisation Network (HIDKON) reported that the Farm Noise and Hearing Network which involves hearing screenings and information provision at rural field days, country shows and events is on the brink of folding due to a lack of funding and support.<sup>28</sup>

5.29 Recognising that services are difficult to access in regional areas, Mr Patrick Gallagher of Attune Hearing described to the committee different ways that organisation provides regional services:

At the moment...we are in the process of developing a model that will enable us to take services to communities. For example, we were recently in Bamaga, in North Queensland, as a pro bono initiative. In fact my colleague Jenny Stevens, who is an audiologist, went there with one of our surgeons and others from the health sector to provide services on a visiting basis.

To give another example, in Longreach we provide training, on our time, to Indigenous health workers. We travel to provide that service because we do not yet have a stand-alone clinic in Longreach. We see that as part of our provision of support back to the community.<sup>29</sup>

5.30 Other initiatives which aim to provide services in remote areas include the Deadly Ears project in Queensland<sup>30</sup> and the Earbus initiative in Western Australia.<sup>31</sup> These initiatives are discussed in detail in chapter eight of this report.

5.31 The committee heard evidence that hearing services provided by state and territory governments are sometimes provided on a very small scale, making them hard to access. For example:

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26 Farmsafe Australia, *Submission 33*, p. 8.

27 Farmsafe Australia, *Submission 33*, pp 8-9

28 Hearing Impaired and Deaf Kindred Organisation Network (HIDKON), *Submission 41*, [p. 6]

29 Mr Patrick Gallagher, Executive Chairman, Attune Hearing, *Committee Hansard*, 7 December 2009, p. 34.

30 See Dr Chris Perry, Clinical Director, Deadly Ears Program, *Committee Hansard*, 7 December 2009.

31 See Telethon Speech and Hearing, *Submission 11*.

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Publicly funded audiology services are very limited in Tasmania. Audiology services are provided one day a week at the Royal Hobart Hospital in the south of the State. With the exception of a cochlear implant clinic, no other audiology assessment or rehabilitation services are provided in the [state] public sector.<sup>32</sup>

5.32 Some services previously offered in other states are being reduced. For example one submission claimed whilst audiology services in NSW are still provided, the number of audiology departments has been reduced, and hours of staffing reduced also.<sup>33</sup> In Victoria too, there was evidence that services have been reduced:

Audiology departments in many regional hospitals have been closed for several years now and, although some hospitals are now reinstating paediatric audiological services, there are still large areas of Victoria with no service within a reasonable travelling distance.<sup>34</sup>

5.33 Another issue that was raised with the committee in relation to rural and remote access was the lack of access to patient assisted travel schemes for people consulting audiologists.<sup>35</sup>

5.34 Australian Hearing noted that whilst 'Most States have programs to meet the cost of travel for families who need to access diagnostic services if their infant fails the initial hearing screening' that support does not extend to the families of older children who have to travel to attend audiological diagnoses.<sup>36</sup>

5.35 The committee heard evidence that the Patient Assisted Travel Scheme (PATS) does not provide assistance with travel for allied health appointments, including audiologists.<sup>37</sup> PATS is available for medical practitioner appointments however, and the committee heard that where possible appointments with audiologists are made to coincide with medical practitioner appointments so that patients can have access to PATS assistance.<sup>38</sup>

5.36 The problems of accessing suitable services for hearing impaired children living in remote and rural areas were highlighted during the inquiry. Children with

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32 Tasmanian Department of Health and Human Services, *Submission 138*, p. 2.

33 New South Wales (NSW) Hospital Audiologists and Allied Audiologists, *Submission 32*, [p. 1]; see also Audiology Australia, *Submission 74*, p. 68.

34 Southern Health Audiology Department, *Submission 47*, [p. 1]; see also Better Hearing Australia (Victoria) Inc., *Submission 113*, p. 2.

35 See for example Ms Lynn Polson, Meniere's Australia, *Committee Hansard*, 8 December 2009, p. 59; and Professor Robert Cowan, HEARING CRC, *Committee Hansard*, 8 December 2009, p. 13.

36 Australian Hearing, *Submission 38*, p. 11.

37 Ms Margaret Dewberry, Australian Hearing, *Committee Hansard*, 11 November 2009, p. 90.

38 Ms Margaret Dewberry, Australian Hearing, *Committee Hansard*, 11 November 2009, pp 90-91.

hearing impairment may require a range of services including speech therapy and instruction in Auslan, as well as support for the family. There are major difficulties in providing these services outside large population centres. Ms Sheena Walters, Deaf Society of NSW, commented:

I think the service models that would be required in urban areas or where there are large populations compared to regional areas would be completely different. I think that realistically to expect that the services or the skills will be available in those areas is difficult in Australia, but certainly using technology is something that is becoming more and more prevalent and advantageous for kids out in those areas.<sup>39</sup>

5.37 In Sydney the committee visited the Royal Institute of Deaf and Blind Children (RIDBC) at North Rocks. The RIDBC is Australia's largest and oldest private provider of educational services to deaf children. It is also a major player in developing innovative educational programs to fill the gaps in the education of children who are deaf or blind and also those with additional disabilities. One of those innovative programs is the use of remote service delivery technologies. This program was pioneered by the RIDBC and currently serves more than 150 children and families in remote locations through the Teleschool program. That program provides for the delivery of both early intervention and specialist school age services through a range of video-conferencing and remote access technologies.<sup>40</sup>

5.38 Professor Gregory Leigh, Chair, RIDBC, stated that the Teleschool operates 'on the premise that children need good access, particularly at the early intervention level, to quality intervention regardless of where they happen to be'.<sup>41</sup> Children with hearing impairment are able to access high quality therapeutic and educational intervention based in Sydney through one of a number of different technologies such as ISDN based point-to-point technologies, and internet-based protocols. This has enabled a large number of families to access the Sydney centre with video conferencing equipment installed in their homes, cellular network based video conferencing technology and satellite technology. Over 150 children in various rural, typically remote areas of Australia are now receiving regular – weekly or fortnightly – early intervention that is analogous to the early intervention they would receive were they located in Sydney. In addition, RIDBC supports some children internationally because of an arrangement with the Sydney Cochlear Implant Centre.

5.39 Professor Leigh commented:

It has been very, very successful. Matched with the fact that the organisation provides for those families to visit Sydney at least once a year, that means that the quality of intervention that those families are receiving

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39 Ms Sheena Walters, Deaf Society of NSW, *Committee Hansard*, 13 October 2009, p. 84.

40 Royal Institute of Deaf and Blind Children (RIDBC), *Submission 67*, p. 4.

41 Professor Gregory Leigh, *Committee Hansard*, RIDBC, 13 October 2009, pp 94-95.

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has really been brought up to a level much, much more similar, if not arguably in some cases better than their city based counterparts.<sup>42</sup>

5.40 Professor Leigh noted that the RIDBC if funded mainly through donation with about one quarter of its funds being provided by the Commonwealth and state governments.<sup>43</sup>

#### ***Access to hearing services for people from non-English speaking background***

5.41 The National Ethnic Disability Alliance (NEDA) raised with the committee several issues that impact on people from non-English speaking backgrounds (NESB) who are attempting to access hearing health support services.<sup>44</sup>

5.42 The first of these issues is that existing support services are often provided only in English, and in written form. This can be a barrier for people who have poor English comprehension and literacy skills.<sup>45</sup>

5.43 NEDA also claimed that some people experience a lack of cultural sensitivity among healthcare professionals generally.<sup>46</sup> Insensitivity was also identified specifically in relation to parents of deaf children. NEDA pointed to a report for the Victorian Deaf Society which:

...claims that NESB parents of deaf children have been advised by health professionals not to teach their child their mother tongue. This has resulted in the cultural and linguistic isolation of deaf children from their family and ethnic community. The report heavily emphasizes that NESB children who are deaf be taught their mother tongue as well as English.<sup>47</sup>

5.44 NEDA also noted that poverty is a common experience for new immigrants to Australia, and that many are unable to access government support, including health and welfare support. The extra costs associated with hearing loss are a particular burden on these vulnerable members of the community.<sup>48</sup>

5.45 Dr Louisa Willoughby of the Victorian Deaf Society commented that whilst the situation for non-English speaking deaf people newly arrived in Australia is hard,

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42 Professor Gregory Leigh, RIDBC, *Committee Hansard*, 13 October 2009, pp 94-95.

43 Professor Gregory Leigh, RIDBC, *Committee Hansard* 13 October 2009, p 100.

44 Please note that the particular issues facing Indigenous Australians from non-English speaking backgrounds are discussed at chapter eight of this report.

45 National Ethnic Disability Alliance (NEDA), *Submission 109*, [p. 2].

46 NEDA, *Submission 109*, [p. 3]

47 NEDA, *Submission 109*, [p. 3].

48 NEDA, *Submission 109*, [pp 3-4].

in fact many are able to access support and hearing devices through philanthropic organisations.<sup>49</sup>

5.46 Australian Hearing provides support and resources to assist non-English speaking people to access their services. These include provision of interpreters at no cost to the client, provision of resource material in ten languages, engagement with organisations representing non-English speaking Australians and training for Australian Hearing staff in working with clients from other cultures.<sup>50</sup>

## Access to assessment services

### *Universal screening for newborns*

5.47 Many people providing evidence to this inquiry were highly supportive of the Council of Australian Governments (COAG) commitment to introduce universal newborn hearing screening by the end of 2010. The rationale behind the initiative is that children who are diagnosed and receive intervention within the first six months of life achieve better speech and language skills than children who are diagnosed after six months.<sup>51</sup>

5.48 Professor Harvey Coates cited research from South Australia which suggests that there is a:

...\$1.2 million saving for each baby detected with bilateral severe or profound sensor neural hearing loss and habilitated before the age of 6 months. These savings [are] in future community costs particularly in education and to a lesser degree in health and in savings in the provisions of pensions and other special care programs.

In Western Australia for example since the first universal newborn hearing program commenced in February 2000 over 120,000 babies have been screened and the savings of the 130 babies detected with bilateral severe or profound sensorineurial hearing loss to the community has been in the order of \$140 million. If this is extrapolated ten times to the population of Australia of its birth cohort then the savings of the universal newborn hearing screening [initiative]...by the end of 2010 will be enormous.<sup>52</sup>

5.49 Deafness Forum of Australia also noted the benefits of universal newborn hearing screening:

In those areas and communities where newborn hearing screening is available, it has had a very positive impact in the community (both amongst

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49 Dr Louisa Willoughby, Victorian Deaf Society, *Committee Hansard*, 8 December 2009, p. 82.

50 Australian Hearing, *Submission 38*, pp 16-17.

51 See for example Better Hearing Australia, *Submission 7*, p. 2; Department of Health and Ageing, *Submission 54*, p 40; and Australian Newborn Hearing Screening Committee, *Submission 68*, p. 9.

52 Professor Harvey Coates, *Submission 4*, [p. 1].

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parents/families and professionals) in raising the awareness of potential hearing loss in infants.<sup>53</sup>

5.50 Professor Harvey Dillon gave evidence that the real proof that universal newborn screening is having the desired impact was in the age take-up rate of hearing aids for children:

We are pleased to say that the age at which there are more children receiving a hearing aid for the first time than at any other age is less than one year, which is showing how well universal screening is working in the places where it is, which is now most of Australia.<sup>54</sup>

5.51 Whilst supportive of the principle of universal hearing screening for newborns, some submissions questioned the possibility of achieving such a goal for all Australians in all parts of the country. Audiology Australia expressed the view that 'regional inequities due to lack of qualified staff and equipment' will impact on the extent and effectiveness of the initiative.<sup>55</sup>

5.52 The committee also heard that even where universal newborn screening is achieved, there are concerns about the capacity of systems to provide the follow up necessary for the additional diagnoses and support for hearing impaired children:

It is imperative that appropriate services to follow up and manage the children diagnosed [under universal newborn screening] are also provided.<sup>56</sup>

5.53 One witness commented that resources for follow up diagnostics are not provided in Victoria:

Audiological services in Victoria (and indeed across Australia) are being asked to support Universal Neonatal Hearing Screening...without ...funding for the diagnostic component. Currently newly born babies are screened for hearing loss in hospitals and...those that do not pass screening, are referred for full diagnostic follow up. The screening component is fully funded by the state of Victoria. The follow up diagnostic component receives no funding and public audiology clinics support this important initiative without any provision of resources.<sup>57</sup>

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53 Deafness Forum of Australia, *Submission 34*, p. 30.

54 Professor Harvey Dillon, Director, National Acoustic Laboratory (NAL), *Committee Hansard*, 19 March 2010, p. 10.

55 Audiology Australia, *Submission 74*, p. 4.

56 Ms Barbara Nudd, *Submission 128*, [p. 3].

57 Ms Melissa Dourlay, *Submission 35*, [p. 2].

### ***Universal hearing screening for children on commencement of school***

5.54 The committee heard from a number of people and organisations about the importance of screening children regularly during their early development years. Professor Harvey Coates informed the committee that:

It is well known that [the rate of] permanent hearing loss doubles by age five and triples by age 10 with acquired and progressive sensorineural hearing loss. Therefore, at-risk children should not only have the newborn hearing screening test, they should also have a test at six months, a year and then annually until they go to school. For children who are ‘normal’ then the newborn hearing test, one at age one, one at three and then the school tests would be adequate.<sup>58</sup>

5.55 One witness expressed concern that universal newborn screening is drawing resources away from screening other age groups:

I think [universal newborn screening] is fantastic; it is what has been needed for a long time. But what I am noticing now is that the community service—the nurses who used to provide that in the preschool year—seems to be dropping off... And there are a lot of hearing losses in children that develop from birth to year 4 or 5. So that screening component should not be dropped.<sup>59</sup>

5.56 Another witness commented that hearing screenings for older children seem to have declined since the implementation of universal newborn hearing screening:

Since the advent of newborn hearing screening programs, there seems to be less support of other hearing screening programs. Since newborn hearing screening will only identify approximately one third of children who will eventually require hearing aid fitting it is essential that access to primary hearing screening services be readily available. As a high proportion of children are identified around ages 5-6 years it would be highly beneficial if the school hearing screening program was reinstated or if the child health check undertaken at age 4 years included an objective hearing assessment...<sup>60</sup>

5.57 This view was reinforced by Australian Hearing, which commented that 'most states no longer have school hearing programs'.<sup>61</sup> Professor Harvey Dillon explained to the committee the importance of screening children as they start their schooling:

Typically, these children [i.e. hearing impaired children aged six, seven and eight years of age who have not been previously diagnosed] will be picked up because basically they are not doing well at school and someone will

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58 Professor Harvey Coates, *Committee Hansard*, 9 December 2009, p. 15.

59 Mrs Jennifer Stevens, Clinical Director, Attune Hearing, *Committee Hansard*, 7 December 2009, p. 42.

60 Ms Genelle Cook, *Submission 21*, [p. 1].

61 Australian Hearing, *Submission 38*, p. 11.

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notice they are having trouble coping in the classroom. That reinforces for us how much better it would be if these children could be picked up in preschool or right at the start of kindergarten, so they do not have that first bad experience of one, two or three years of not coping. In fact, the number who were picked up in those three age ranges is more than twice the number who are picked up by universal [newborn] screening. That is because with some of them the loss is too mild to have been able to be detected when they are a baby. For others it will be a case of a progressive loss and for others there will be hearing losses that have occurred through illness or injury during the intervening years.<sup>62</sup>

5.58 This view, that children should be screened again prior to, or on commencement of, their first year of schooling, was shared by other witnesses including ASOHNS<sup>63</sup>, the Australian Newborn Hearing Screening Committee<sup>64</sup> and Audiology Australia.<sup>65</sup>

#### ***Access to the Australian Government Hearing Services Program for people in custody***

5.59 The connection between hearing loss and increased engagement with the criminal justice system has been noted at chapter four of this report. This issue is of particular relevance for Indigenous Australians, for whom hearing issues may be compounded by cultural and language communication issues, as discussed in detail at chapter eight.

5.60 At the time of their submission to this inquiry (October 2009), Australian Hearing remarked that young Australians in juvenile custody did not receive Australian Hearing services. The Department of Health and Ageing (DOHA) has since updated its advice on this issue. People who were already in receipt of Commonwealth funded hearing services at the time they were incarcerated may continue to receive these services. However when a person in custody is diagnosed with hearing loss after their incarceration, the costs of intervention and support are to be borne by the state or territory government.<sup>66</sup>

#### ***Quality standards for hearing assessments in the private sector***

5.61 A number of people gave evidence that the absence of agreed standards in audiological assessment may lead to incomplete diagnoses. Furthermore, according to evidence before the committee, whilst most Australians would be able to access free

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62 Professor Harvey Dillon, Director, NAL, *Committee Hansard* , 19 March 2010, p. 10.

63 ASOHNS, *Submission 137*, p. 5.

64 Australian Newborn Hearing Screening Committee, *Submission 68*, p. 2.

65 Mr James Brown, President, Audiology Australia, *Committee Hansard*, 8 December 2009, p. 73.

66 DOHA, answer to question on notice, 19 March 2010 (received 3 May 2010).

hearing screenings in the private hearing health sector, they should be aware of the level of assessment they will receive:

There are claims of a ‘diagnostic assessment’ when it is just a screening test...When you perform a hearing test, there are five components to the hearing test: air conduction, bone conduction, middle ear, acoustic reflex and speech discrimination. All those components may come together to identify an underlying medical problem...If you do one component of that test it is very limiting and only identifies hearing loss...It just says, ‘Yes, you’ve got hearing loss.’ If you do not perform the full range of that diagnostic assessment then you could miss some underlying medical pathology that is causing that hearing loss.<sup>67</sup>

5.62 In one example presented to the committee, a person claimed to have received poor quality care, and been left out of pocket for her trouble:

I had to find a private audiologist [when I turned 21], three of whom were not very good, and I bought hearing aids from each of them when one would have been enough. Each hearing aid is about \$3500 to \$4000. One of them also convinced me to buy an FM system for \$1500 which I have never used, because it was not correct for my hearing loss.<sup>68</sup>

5.63 Donna Staunton, CEO of the HCIA, wrote to the committee condemning such practices:

I...wish to place on record the Hearing Care Industry Association’s total opposition to this kind of unethical and exploitative behaviour. Our members aim to deliver world-class hearing healthcare to all Australians. It has at the core of its mission, its clients and it aims to help all Australians who are suffering from hearing loss to achieve a better quality of life. In particular the Association’s members do not prescribe or provide hearing aids unsuitable or unnecessary for particular clients. They prescribe according to the client’s need, not their own and they do this after making a fully informed, professional judgement.<sup>69</sup>

5.64 Many submitters made a connection between the provision of free hearing screenings and the sale of hearing aids.

In my [hearing impaired] husband’s experience, most private audiology practices are aligned with a particular brand (or brands) of hearing aids and therefore their advice is heavily influenced by the need to promote and sell those particular products. That means the client is rarely receiving advice which is in his / her best interests or which meets his / her needs.<sup>70</sup>

5.65 In a similar vein, the committee heard from one witness:

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67 Mrs Jennifer Stevens, *Committee Hansard*, 7 December 2009, pp 35-36.

68 Ms Kate Locke, *Submission 82*, [p. 1].

69 HCIA, *Submission 180*, [p. 2].

70 Ms Eleanor Kennett-Smith, *Submission 141*, [p. 1].

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...I think [it] is very wrong is that, in a lot of instances, the hearing aid industry indulge in a lot of misleading advertising. To people who really do not know anything about hearing loss and people who are just starting to lose their hearing, these advertisements give the impression that if they get a hearing aid everything is going to be just right. I know a lot of people who have done that and have then discarded the hearing aid because it does not meet their expectation. I think all this advertising really needs to be modified so that the situation is a little bit more realistic, rather than just selling hearing aids for purely commercial purposes.<sup>71</sup>

5.66 The committee heard evidence from Better Hearing Australia (Victoria) that people with a hearing impairment are concerned about the independence of advice they receive from hearing aid practitioners:

Many hearing aid practitioners offer free hearing tests, but our experience with, and feedback from the public is that they have concerns about engaging with an organisation that they believe wants to sell them a hearing aid. This means that individuals are more inclined to delay having their hearing checked until it becomes much worse, or they are “persuaded” to do so by a family member. Easier access to free, and just as importantly independent, hearing checks for all Australians would encourage people to take action sooner.<sup>72</sup>

5.67 Attune Hearing suggested that the nature of audiology practice in Australia had changed:

The hearing industry today is vastly different to what it was 3-5 years ago. A once small, privately owned ‘audiology’ industry has been replaced by a corporately consolidated, hearing aid product driven industry.<sup>73</sup>

5.68 Better Hearing Australia (Victoria) also commented that the culture of selling products sometimes prevails over quality advice and service:

There seems to be a culture of selling products rather than helping people deal with their problems...An inquiry about how much a hearing aid would cost, netted the response, “How much can you afford”, and another client was quoted a price which seemed very high so went elsewhere. When the original practitioner called to see why he hadn’t been back, he explained that he had [found] the same product for \$2000 less, and was told they would match the price! He asked the “sales person” if he was selling health services or used cars.<sup>74</sup>

5.69 Attune Hearing provided the committee with a list of possible consequences of free hearing screenings conducted inexpertly:

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71 Mr Peter Lindley, *Committee Hansard*, 7 December 2009, p. 30.

72 Better Hearing Australia (Victoria), *Submission 113*, p. 3.

73 Attune Hearing, *Submission 134*, [p. 2].

74 Better Hearing Australia (Victoria), *Submission 113*, p. 4.

...At great cost to the Commonwealth, many consumers have been fitted with hearing aids in circumstances where they will never benefit from them...Consumers have not been properly, diagnostically examined, such that serious medical indicators have been missed with resulting serious medical consequences for the patient...Consumers often do not maintain use of hearing aids because they did not receive adequate professional counselling prior to fitting, or adequate follow up service or support (if any).<sup>75</sup>

5.70 Evidence was provided to the committee that access to independent and high quality audiological assessment would improve if audiologists were given more capacity to provide audiological services under Medicare than is currently the case.<sup>76</sup>

5.71 A number of submitters remarked that a set of agreed standards for audiological assessments would help healthcare consumers make more informed choices about the services they need.<sup>77</sup> Nationally agreed standards may also help improve the overall quality of audiological services and assessments currently provided. As Patrick Gallagher of Attune Hearing stated to the committee:

I think [it is necessary to have] a properly regulated industry with appropriate quality standards, so that there is an even playing field. This industry is unregulated. I can sell a hearing aid on the street downstairs. ...We are a business that provides services for a profit. We do not hide behind that. We also provide services to clients in the medical community that we struggle to support in financial terms. We are not here to cry poor but we advocate a regulated set of standards in the for-profit sector so that there is a level playing field. The bar needs to be raised...The industry has become product focused. We are not knocking those that do it. We are not here to knock the manufacturers...But our business is in the market competing for members of the public. It is difficult to differentiate yourself in that market as a smaller business when there are no appropriate standards. So we say, 'Raise the bar.' We say that a diagnostic test is a diagnostic test, not a screen.<sup>78</sup>

## Access to support services

5.72 The committee heard that diagnosis of hearing impairment at any age can be a traumatic experience for the hearing impaired person and for the people around them.<sup>79</sup> Access to appropriate support and advice at this time is very important, and may have some bearing on the success of any subsequent intervention. However many

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75 Attune Hearing, *Submission 134*, [p.3].

76 Audiology Australia, *Submission 74*, p. 38.

77 Attune Hearing, *Submission 134*, p. 3.

78 Mr Patrick Gallagher, Executive Chairman, Attune Hearing, *Committee Hansard*, 7 December 2009, p. 39.

79 Canberra Deaf Children's Association, *Submission 27*, [p. 1].

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witnesses and submitters explained to the committee that they received little support and resources to assist them, and would like to see this aspect of hearing health improved.

### ***Counselling support at the time of hearing loss diagnosis***

5.73 The North Shore Deaf Children's Association stated that 'Approximately 90% of children with a hearing loss are born to parents with little or no experience of deafness'.<sup>80</sup> The committee heard that for these parents there is a great need for independent support and advice at the time of birth, after the diagnosis appointment, and as they consider intervention options after the diagnosis.<sup>81</sup>

5.74 One submission commented that they found little support or advice to assist them:

The [Australian Hearing] audiologists were very nice but there was no follow-up to assist us with the shock of being told [that their 8 month old son was hearing impaired]. There was no program to get us into early intervention – no case worker support, no counselling – we were on our own. It was some time before we could even discuss our son's disability without being emotional.<sup>82</sup>

5.75 The evidence suggests that the shock of hearing loss diagnosis, and subsequent need for quality support and advice, is no less when made later in life for both the hearing impaired person and for their families:

My hearing loss was first discovered at age 11, and I was given hearing aids without any sort of rehabilitation or support. It took me ages to get used to them and to wear them. It was a traumatising experience as a child.<sup>83</sup>

When my daughter was first diagnosed [with hearing loss in both ears] I asked many departments for information for [her] teachers, and the only pamphlet I was given was so old it suggested pipes and cigarettes be removed from the teacher's mouths when talking to deaf children.<sup>84</sup>

5.76 One organisation commented on the link between universal newborn hearing screening, increased diagnoses of hearing loss, and the increased need for support:

Parents fully support newborn hearing screening and appreciate knowing that their child has a hearing loss early but they then need guidance and support and access to services to ensure the best outcomes for their child.<sup>85</sup>

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80 North Shore Deaf Children's Association, *Submission 39*, [p. 3].

81 The Shepherd Centre, *Submission 53*, [p. 9].

82 Name withheld, *Submission 150*, p. 1.

83 Ms Kate Locke, *Submission 82*, [p. 1].

84 Ms Roslee Fyfe, *Submission 121*, [p. 1].

85 Aussie Deaf Kids, *Submission 16*, p. 5.

5.77 Parents of children newly diagnosed with hearing loss are provided with '*Choices*', a booklet produced by Australian Hearing.<sup>86</sup> The booklet presents information about the issues parents of children newly diagnosed with hearing loss may be experiencing, and the things they may be feeling. '*Choices*' also provides practical information about the sorts of testing the parents should anticipate, and the choices they will have for their children.<sup>87</sup>

5.78 One submitter expressed their opinion that audiologists are not well trained to provide support for people to adjust to the changes their condition requires, particularly around access to services and specialised equipment.<sup>88</sup>

5.79 Support services in Australia are usually provided by volunteer organisations, often run by parents of hearing impaired children. This arrangement means that parents are most likely receiving the advice from people who have been through a similar experience, and who will understand. However there may be down sides, as Connect Hearing pointed out:

Support services are typically provided by volunteer groups such as Better Hearing Australia or SHHH or by service groups such as Quota. Because of this arrangement, support services are not universally available or of a universal minimum standard.<sup>89</sup>

5.80 The University of Melbourne Audiology and Speech Sciences department suggested that families would benefit from the support of a single case manager to help them navigate the services available.

There is a current gap in the clinical pathway for families of children with diagnosed hearing loss. The diagnosis itself is often a devastating and emotional experience and families are often left grieving while they are given sometimes conflicting advice from up to seven agencies or professionals that may claim part "ownership" of the case.

Many countries have established a family support scheme where a case-manager becomes the main point of contact and helps coordinate the necessary assessments and consultations until a degree of stability is reached. It is generally agreed that this is a service that needs to be established in the Australian context. Not many will agree, however, about who or how it should be achieved.<sup>90</sup>

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86 '*Choices*' can be downloaded from the Australian Hearing website at [http://www.hearing.com.au/digitalAssets/4712\\_1173929249618\\_Choices%20national.pdf](http://www.hearing.com.au/digitalAssets/4712_1173929249618_Choices%20national.pdf)

87 Australian Hearing, *Choices* (2005), viewed 13 April 2010, [http://www.hearing.com.au/digitalAssets/4712\\_1173929249618\\_Choices%20national.pdf](http://www.hearing.com.au/digitalAssets/4712_1173929249618_Choices%20national.pdf)

88 Deaf Access Victoria Gippsland Region, *Submission 37*, [p. 1].

89 Connect Hearing, *Submission 23*, [p. 3].

90 University of Melbourne Audiology and Speech Sciences, *Submission 9*, p. 6.

## ***Interpreters***

5.81 For many people with hearing loss, interpreters can assist them to access services and advice in a hearing world. Interpreters are not a panacea however, as there are a range of issues that can impact on their accessibility and applicability.

5.82 To access interpreter support a person needs to be fluent in both English and Auslan, which is not always the case, sometimes to the embarrassment of people with a hearing impairment:

I don't use sign language, don't understand it, and I am always embarrassed when I have a medical appointment and the staff (if they know I am hearing-impaired) assume I know sign language and get an interpreter in.<sup>91</sup>

5.83 Interpreter services, like so many hearing health services, are not as accessible in rural and regional areas as they are in the cities.<sup>92</sup>

5.84 Another obstacle for widespread use of interpreters is the cost. The Australian DeafBlind Council told the committee that they have little funding to support their advocacy program, and that the cost of interpreters is their greatest expense:

We received a special one-off funding grant from the Department of Human Services. It was \$12,000 to cover the costs for interpreters, as we require interpreters and they are the most expensive expense we have.<sup>93</sup>

5.85 The committee heard a considerable body of evidence about the particular issues that arise when interpreters are used in an educational setting. A major concern raised was the lack of required interpreter standards in Australia for people interpreting in classrooms:

There is not actually any specific training for interpreters to work in an educational setting. Currently, the department pays a teacher's aide, and they are not necessarily professionally qualified as interpreters, or even fluent in Auslan. They have some degree of signing, however it is not necessarily proficient signing, and there is no testing on their level of proficiency.<sup>94</sup>

5.86 Inexpert translation can be frustrating for hearing impaired students, as one mother of a hearing impaired child explained:

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91 Ms Shirley Edwards, *Submission 81*, [p. 1].

92 Audiology Australia, *Submission 74*, p. 55.

93 Ms Carla Anderson, Australian DeafBlind Council, *Committee Hansard*, 8 December 2009, p. 43.

94 Ms Kate Nelson, Program Officer, Deaf Society of NSW, *Committee Hansard*, 13 October 2009, p. 31.

One of the teachers has very poor limited sign skills and my daughter is so frustrated in class, because she looks around and [knows] that the other (hearing) students are going ahead with their work and she isn't.<sup>95</sup>

5.87 Deaf Australia NSW suggested a professional standard that could be applied:

The solution we propose is the adoption of a benchmark for fluency for staff employed to work with children who access the curriculum using Auslan, whether teacher aides, learning support officers, interpreters or teachers of the deaf. This benchmark should be [National Accreditation Authority for Translators and Interpreters] Paraprofessional level accreditation or [National Auslan Interpreter Booking & Payment Service / Australian Sign Language Interpreters Association] Deaf Relay Interpreter Certification as a minimum.<sup>96</sup>

5.88 The Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) drew the committee's attention to its National Auslan Interpreter Booking and Payment Service (NABS). Under this scheme, accredited Auslan interpreters are provided to assist with any private medical consultation which attracts a Medicare rebate, at no charge to the deaf person.<sup>97</sup>

5.89 FaHCSIA also noted that not all deaf people use Auslan to communicate. According to their submission, there are over 500 interpreters available under NABS, and they have provided interpreters for over 60,000 private medical and healthcare appointments since January 2005.<sup>98</sup>

5.90 One submitter called for the establishment of:

...training, employment and government funding initiatives to provide more Auslan qualified interpreters/aides for schools, hospitals and government services and encourage uptake by [the] private sector where it is most beneficial (i.e. counter staff, call centres, sales floors).<sup>99</sup>

5.91 The issue of more general professional development for teachers with hearing impaired students in their classroom is discussed, and recommendations made, at chapter six of this report.

5.92 The committee also heard evidence about the use of interpreters to assist people to access legal services. This issue is dealt with in chapter eight.

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95 Parent Council for Deaf Education, *Submission 63*, p. 1.

96 Deaf Australia NSW, *Submission 19*, [p. 2].

97 Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), *Submission 50*, p. 4.

98 FaHCSIA, *Submission 50*, p. 4.

99 Barnaby Lund, *Submission 169*, [p. 3].

## Access to hearing technologies

### *A note on the scope of this inquiry with regard to technologies*

5.93 The committee would like to note that it is inquiring into issues which impact on the ability of people with a hearing impairment to access appropriate hearing technologies. A comprehensive survey of the many types of technologies available would be a huge task in itself, and is beyond the scope of this report. Information and clarifications about different technologies are provided only where necessary to report on issues of access.

### *Hearing aids*

#### *Under usage of hearing aids*

5.94 According to the HCIA, 24 per cent of Australians who would benefit from a hearing aid have one.<sup>100</sup> The association states this is 'quite good by international standards', but falls short of international best practice levels enjoyed by Denmark, which has 45 per cent.<sup>101</sup>

5.95 The committee heard that around 350,000 hearing aids are sold in Australia each year, and that 75 per cent of those are paid for with public funding.<sup>102</sup> Whilst provision of hearing aids may be high, the committee heard evidence that usage may be low. The rate of non- or under-usage of hearing aids was estimated by witnesses at between 20 and 40 per cent of all hearing aids provided with public funding [therefore between 65,625 and 78,750 hearing aids may be under-used].<sup>103</sup>

5.96 Catherine Westacott of Deafness Forum Australia emphasised the importance of properly educating and counselling people when they are being fitted with hearing aids, and believes this will increase usage levels.<sup>104</sup>

5.97 Professor Robert Cowan suggested that inappropriate expectations may be behind low hearing aid usage rates:

Everyone talks about hearing aids being in the top drawer, and you would have heard that. The reason is that either people do not really understand at the outset what the limitations of a hearing aid are or the person who has fitted the device for them has not understood what their needs are. A

100 HCIA, *Submission 61*, p. 9.

101 HCIA, *Submission 62*, p. 9.

102 Hearing Aid Manufacturers and Distributors Association of Australia, *Submission 61*, p. 1.

103 DOHA, answer to question on notice, 19 March 2010 (received 23 April 2010); see also Mr John Gimpel and Ms Donna Staunton, HCIA, *Committee Hansard*, 11 November 2009, p. 103.

104 Mrs Catherine Westacott, Deputy Chair, Deafness Forum Board, Deafness Council of Australia, *Committee Hansard*, 12 October 2009, p. 26.

holistic approach addresses needs at the outset. Someone might not need a hearing aid.<sup>105</sup>

5.98 Professor Harvey Dillon agreed that motivation was a critical part of improving usage levels, and that this be incorporated into hearing aid assessments:

We suggested that there be an element of testing of the motivation of the person before they become eligible to get a hearing aid. In fact, the Office of Hearing Services is in the process of putting that into place. I believe it is going to start in July.<sup>106</sup>

5.99 Neil and Susan Clutterbuck state in their submission that, in terms of hearing aid performance, the hearing aid industry has been 'over-promising and under-delivering' for a long time, and that this creates an unrealistic expectation of performance which, when it is not met, reinforces negative perceptions.<sup>107</sup>

5.100 The Clutterbucks are also sceptical about the extent to which the stigma of wearing hearing aids discourages use, citing research which shows that more people were unhappy about hearing aid performance than were concerned about stigma.<sup>108</sup>

5.101 The committee heard evidence that the structure of Australian Government Hearing Services Program funding has encouraged the sale and supply of hearing aids, rather than targeting the needs of people with a hearing impairment. For example Patrick Gallagher commented in his evidence that:

...a lot of this debate about hearing aids sitting in drawers can be drawn from [lack of an outcomes focus to provision of hearing aids under public funding]. If it is [only] about [selling] the product, it is about: how do you get people on a seat to be fitted with a hearing aid? It doesn't matter [about outcomes]: it is a product sale. Firstly, if...a proper diagnostic test [is] done as part of that process, people who need a hearing aid will get a hearing aid. Secondly, if there is an interest post sale in providing ongoing services...then there will be fewer hearing aids in drawers.<sup>109</sup>

5.102 One audiologist who made a submission to the inquiry also remarked on the need to emphasise counselling and rehabilitation in addressing hearing loss, arguing that at present there is a 'device focus' in the OHS programs:

Whilst OHS has always allowed patients to opt for counselling instead of a hearing device, such counselling is limited and restricts access to devices. The counselling option results in only a small fee being paid to the service provider. OHS does not currently allow any gap fee for services, only for

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105 Professor Robert Cowan, CEO, HEARing CRC, *Committee Hansard*, 8 December 2009, p. 7.

106 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 19 March 2010, p. 13.

107 Neil and Susan Clutterbuck, *Submission 36*, [p. 3].

108 Neil and Susan Clutterbuck, *Submission 36*, [p. 3].

109 Mr Patrick Gallagher, Executive Chairman, Attune Hearing, *Committee Hansard*, p. 39.

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devices under the [top-up] scheme, making the offering of counselling services a less financially viable option to [service] providers.<sup>110</sup>

5.103 The Office of Hearing Services gave evidence to the committee that the voucher program is being amended so that it will better target provision of hearing aids to those in need. With the introduction of a Minimum Hearing Loss Threshold from 1 July 2010, for the first time hearing aids will only be provided to those with significant hearing loss:

The intention of the [Minimum Hearing Loss Threshold] measure was to direct hearing services and...devices to people who have significant hearing loss...That is so the devices, which are quite expensive to provide, are not directed to [people with normal hearing]. We can redirect them to those who really need a hearing device.<sup>111</sup>

#### *Top-ups*

5.104 The committee heard evidence that some people are concerned about the 'top-up' aspect of the voucher program, and in particular that people accessing hearing services under the voucher program may be being pushed into taking out top-up options unnecessarily.

5.105 Clients of the voucher program are able to access a wide range of technologies at no cost to themselves.<sup>112</sup> The department, in consultation with a range of industry stakeholders, reviews the list of approved hearing devices every 18 months to incorporate technological advances.<sup>113</sup> In addition, clients have the option to purchase additional features to the free aids at their own expense, known as 'topping up'. Additional features might include enhanced user preferences, blue tooth connectivity or adaptable directional microphones.<sup>114</sup>

5.106 As was noted above, some audiologists were critical of the voucher scheme, arguing that it encourages hearing aid sales but not quality hearing health care. The top-up option creates another incentive for hearing aid manufacturers to push sales, as one submitter argued:

The voucher scheme has created a competitive marketplace for large hearing aid providers to make large profits from this government funding...it is disturbing to see large hearing aid providers 'cold calling' pensioners to entice them to their clinic for a hearing test (paid for by the federal government, whether or not it is indicated). Once the contacted person attends for a hearing test, these companies will often also have sales

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110 Dr Louise Collingridge, *Submission 17*, p. 2.

111 Ms Teressa Ward, National Manager, Office of Hearing Services (OHS), *Committee Hansard*, 19 March 2010, p. 43.

112 For a summary of the type of devices available see DOHA, *Submission 54*, pp 43-48.

113 DOHA, *Submission 54*, p. 48.

114 DOHA, *Submission 54*, p. 49.

targets both for the number of people they manage to fit with hearing aids and for the level of hearing aid (how expensive) they are able to sell the person (as top-up aids with the additional contribution being made by the pensioner). I feel these practises have had a negative impact on how hearing professionals are viewed by the public.<sup>115</sup>

- 5.107 Noeleen Bieske of the Deafness Foundation gave evidence that people who are sold top-ups often do not need them:

The audiologists are just fitting hearing aids...and a lot of them are also saying, 'The government hearing aids are no good; you need the top-up.' But...these people...really cannot afford to spend \$2,000 or \$3,000 extra to top-up, and they do not need it. The government hearing aids are very good for most of these people.<sup>116</sup>

- 5.108 This view was shared by Self Help for Hard of Hearing People (SHHH) Australia, which commented that:

The hearing devices available on the 'free list' are all high quality products, and we wonder about the benefits of the 'top-up' regime, where older people are pushed into buying expensive 'top-up' aids that may not provide them with a better hearing outcome.<sup>117</sup>

- 5.109 DVA also made a submission to the inquiry on the issue of veterans being sold unnecessary top-ups:

DVA receives numerous queries or complaints from the veteran community regarding the purchase of top-up hearing aids, that is aids which have additional features that are not essential to meet clinical needs...it appears that top-up devices are sometimes provided unnecessarily...DVA is concerned about the unnecessary up-selling of hearing aids.<sup>118</sup>

- 5.110 Professor Brian Pyman, also of the Deafness Foundation, added that in his view:

An audiologist earns their income on the basis of the number of hearing aids that they sell...<sup>119</sup>

- 5.111 The HCIA defended the practice of hearing aid retailers in regard to top-ups, claiming that the voucher program would not be viable without the extra income top-ups provide:

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115 Mr Derek Moule, *Submission 103*, [p. 1].

116 Ms Noeleen Bieske, Director, Deafness Foundation, *Committee Hansard*, 8 December 2009, p. 95.

117 Self Help for the Hard of Hearing (SHHH) Australia, *Submission 72*, [p. 6].

118 Department of Veterans' Affairs (DVA), *Submission 135*, [p. 2].

119 Associate Professor Brian Pyman, Board Member, Deafness Foundation, *Committee Hansard*, 8 December 2009, p. 95.

In practice, manufacturers and retailers use the 'top-ups' as a cross subsidy. In other words, without a certain minimum percentage of 'top-up' clients, the voucher system would not be viable or sustainable for providers to provide "free to client" services. In general, providers in Australia need to see around twice as many clients compared to providers in other industrialized countries to operate a sustainable business given the current reimbursement system and the split between 'top-ups' and 'free to client' devices.<sup>120</sup>

5.112 Extending this point at a public hearing, Mr John Gimpel of the HCIA added that '...if we were in business fitting [hearing devices supplied solely under OHS] vouchers all day long we would not be in business'.<sup>121</sup>

5.113 One audiologist gave evidence that the restricted eligibility to Office of Hearing Services support is part of the reason the voucher scheme is not viable on its own:

We are encouraged to create top-up revenue because we cannot make up the revenue in private sales, [I]f we were able to create this larger client base [i.e. by expanding program eligibility] we would not need to be pushing so hard to make sales from low-income earners.<sup>122</sup>

### *Hearing Aid Banks*

5.114 Hearing aid banks are one avenue for people on low incomes who are not eligible for OHS vouchers to obtain reconditioned hearing aids at little or no cost. These are usually run on a small scale by volunteer or charity organisations, such as Better Hearing Australia's Victorian branch, which explained that:

This free community assistance scheme aims to provide assistance to people who require hearing aids, but are not in a position to access the private system, and are ineligible for the Australian Government Scheme through the Office of Hearing Services. Many low income people are helped, including refugees and people who are unemployed. The resources are limited as we rely on donations of behind the ear hearing aids, which are then cleaned, reconditioned and fitted by a volunteer hearing aid practitioner.<sup>123</sup>

5.115 The committee understands that the following organisations run hearing aid banks in Australia:

- Better Hearing Australia (Victoria) – Victoria;
- H.E.A.R Services (Vicdeaf) – Victoria;

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120 HCIA, *Submission 62*, p. 4.

121 Mr John Gimpel, Director, HCIA, *Committee Hansard*, 13 October 2009, p. 105.

122 Quoted in CPSU, *Submission 77*, p. 3.

123 Better Hearing Australia (Victoria), *Submission 113*, p. 1.

- Self Help for Hard of Hearing – New South Wales;
- Princess Alexandra Hospital – Queensland;
- Deafness Association – Northern Territory;
- Central Australian Aboriginal Congress – Northern Territory;
- Royal Adelaide Hospital – South Australia; and
- Hearinglink (Tasmanian Deaf Society) – Tasmania.<sup>124</sup>

5.116 Professor Harvey Coates gave evidence that hearing bank-like activities also take place in Western Australia (WA), though its coverage and extent are not clear:

So we started an ear alliance hearing aid bank, and we have used hearing aids, some of which are from [the Office of Aboriginal and Torres Strait Islander Health] and other groups, like the Office of Hearing Services...who have sent them to us. We then distribute them to these communities so people who would otherwise miss out have hearing aids.<sup>125</sup>

5.117 NSA provided evidence about the limitations of the service:

Hearing aid banks face a range of challenges including keeping up with the demand for services, maintaining and updating equipment required for testing and reconditioning of hearing aids and building awareness for the need for second hand hearing aids. Hearing aid banks play a small, but pivotal role in assisting consumers who are otherwise ineligible to access free or subsidised hearing aids. However hearing aid bank services are limited by supply factors, with services generally unable to cope with increases in demand. Additional funding is required for hearing aid banks to develop awareness about the opportunity for people to hand in their second hand hearing aids, and to assist hearing aid banks to keep up with technology demands.<sup>126</sup>

5.118 SHHH Australia, whose hearing aid bank marked its 21st birthday in 2009, explained that Health Care Card holders and low income earners are eligible for hearing aids under its system, and that applicants pay \$100 towards the cost of the hearing aid.<sup>127</sup> This service provides 30 to 40 aids a year and does not advertise in an attempt to reduce demand.<sup>128</sup>

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124 DOHA website, viewed 15 April 2010,  
<http://www.health.gov.au/internet/main/publishing.nsf/Content/health-hear-client11.htm>

125 Professor Harvey Coates, *Committee Hansard*, 9 December 2010, p. 22.

126 NSA, *Submission 175*, pp 6-7.

127 SHHH Australia, *Submission 72*, [p. 11].

128 Mr Richard Brading, Chair, SHHH Australia, *Committee Hansard*, 11 November 2009, p. 41.

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5.119 Rebecca Allnutt, an Alice Springs-based audiologist, told the committee that hearing impaired prisoners in the Alice Springs Correctional Centre have benefited from the hearing aid bank service run by Central Australian Aboriginal Congress.<sup>129</sup>

5.120 SHHH Australia commented that in NSW demand for hearing aid bank services far outstrips supply. In Queensland too, demand for hearing bank services is higher than can be met. The hearing aid bank at the Princess Alexandra Hospital remarked in Audiology Australia's submission that 'We are only able to fit [approximately two] people per month and we have a 12-15 month waiting list which has remained fairly constant for many years'.<sup>130</sup>

5.121 Australian Hearing noted in its submission the existence of hearing aid banks, and commented that:

The hearing aids are donated, usually by people who no longer use their devices. Therefore the range of devices available through hearing aid banks is limited and knowledge about the existence of these schemes amongst those who could benefit is limited.<sup>131</sup>

5.122 SHHH Australia commented that some of their donated hearing aids come from deceased estates.<sup>132</sup> The committee notes that the Australian Hearing website directs visitors wishing to donate old hearing aids to the nearest hearing aid bank.<sup>133</sup>

5.123 Whilst most evidence was supportive of hearing aid banks, there were some criticisms. These were mostly criticisms of a health system which makes a hearing aid bank necessary, and of the obvious limitations of having to adapt to an aid that was fitted to someone else, rather than criticisms of the service itself. For example:

The Macquarie University Audiology Clinic runs a hearing aid bank providing second hand hearing aids for sale. We feel this is a third world solution because the aids cannot be tailored to the individual hearing loss.<sup>134</sup>

### ***Cochlear Implant Speech Processors***

5.124 Many submitters remarked on the fact that cochlear implant speech processors, the externally worn part of the cochlear implant, must be replaced every

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129 Mrs Rebecca Allnutt, *Committee Hansard*, 18 February 2010, p. 14.

130 Audiology Australia, *Submission 74*, p. 40.

131 Australian Hearing, *Submission 38*, p. 14.

132 Mr Richard Brading, Chair, SHHH Australia, *Committee Hansard*, 11 November 2009, p. 44.

133 Australian Hearing website, viewed 15 April 2010, <http://www.hearing.com.au/faq#14>

134 Let Us Hear, *Submission 20*, p. 5.

five to 10 years.<sup>135</sup> Speech processors are estimated to cost between \$8,000 and \$10,000.<sup>136</sup>

5.125 The committee heard evidence of an apparent inequity in the way the Australian Government funds speech processors. All Australians under 21 years of age are entitled to receive free replacements for lost, damaged or stolen speech processors, and free upgrades based on clinical need. However adults who are eligible for OHS services, by definition pensioners on low incomes, are not entitled to replacement or upgrade processors, and must pay for them out of their own pockets.<sup>137</sup>

5.126 Australian Hearing noted that whilst they are not able to provide replacement or upgrade speech processors to eligible adults, they are able to provide maintenance and replacement parts for their existing processors.<sup>138</sup>

5.127 The Cochlear Implant Clinic at the Royal Victorian Eye and Ear Hospital pointed out in its submission that whilst hearing aids are replaced on a clinical needs basis for those over 65, the same condition does not apply for speech processors:

Adult clients of [Office of Hearing Services] are expected to fund replacement themselves, and since all are pensioners this is not a realistic or a fair request. This may lead to a situation where some patients could be left without adequate hearing. The current cost of replacing a speech processor is at least \$8050. Most pensioners do not have access to this lump sum given their limited finances.<sup>139</sup>

5.128 ENT Cochlear Implant Surgeons Queensland noted the impact of a broken speech processor on individual implantees:

...the reality of a broken speech processor for a cochlear implantee, is that they have no auditory function at all, or to be blunt, they are stone deaf.<sup>140</sup>

5.129 Australian Hearing noted in its submission that Cochlear Ltd had recently announced that four models of cochlear implant speech processors were now considered obsolete.<sup>141</sup>

5.130 One submitter estimated the life-long cost to a 21 year old person with one implant averages out to \$60 to \$80 per week,<sup>142</sup> which is an unwelcome financial burden on low income earners.

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135 See for example Mr Peter Demmery, *Submission 3*; Ms Genelle Cook, *Submission 21*; Ms Glenda Froyland, *Submission 96*.

136 Australian Hearing, *Submission 38*, pp 13-14.

137 Melbourne Cochlear Implant Clinic, *Submission 42*, [p. 1].

138 Australian Hearing, *Submission 38*, p. 16.

139 Melbourne Cochlear Implant Clinic, *Submission 42*, [p. 1].

140 ENT Cochlear Implant Surgeons Qld, *Submission 49*, p. 8.

141 Australian Hearing, *Submission 38*, p. 16.

5.131 The burden for people with two implants is even greater:

As a bilateral cochlear implantee I was facing an outlay of approximately \$17,000 every 5 years. How many people can afford this just to be able to communicate in a society where the spoken word is the accepted form of communication?<sup>143</sup>

5.132 Australian Hearing gave evidence that the clinical costs associated with cochlear implants, including the initial implant and ongoing clinical costs, are covered by Medicare for all Australians, though clinical services connected to hearing aids are only covered by Medicare for clients of the Australian Government Hearing Services Program.<sup>144</sup>

### ***Accessing media***

#### *Closed captioning on television and DVDs*

5.133 The committee heard evidence about the limited extent that captioning is available to help people with hearing loss access television and DVDs.

5.134 Many submitters complained about the limited captioning currently provided with television services in Australia. One submitter claimed that relying on captioned television programs meant:

Only being able to watch TV between the hours of 5:30pm and 10:30pm as these are the only times that television networks are required to caption programs. Not being able to watch all DVDs as they don't have English captions.<sup>145</sup>

5.135 Media Access Australia provided some useful data to the committee around the extent of captioning in Australia:

Closed captioning, while at increasing levels on some free-to-air television is too low to enable viewing of video for people with hearing impairments in a number of areas:

- Overnight free-to-air television is rarely closed captioned.
- Almost no digital multi-channel programming is closed...captioned.
- Sports television programming is rarely closed captioned.
- Subscription television is closed captioned at a very low level. Only 44% of subscription television content, including repeats, is closed captioned.
- Only 55% of DVD video is closed captioned.

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142 Mr Peter Demmery, *Submission 3*, [p. 1].

143 Ms Glenda Froyland, *Submission 96*, [p. 1].

144 Australian Hearing, *Submission 38*, p. 10.

145 Ben Obermayer, *Submission 101*, [p. 1].

- Only 24 out of around 500 cinemas in Australia show closed captioned sessions.<sup>146</sup>

5.136 According to advice provided on the website of the Department of Broadband, Communications and the Digital Economy (DBCDE):

The *Broadcasting Services Act 1992* (BSA) requires each commercial television broadcasting licensee and each national broadcaster to provide a captioning service for television programs transmitted during prime viewing hours (6.00 pm until 10.30 pm) and television news or current affairs programs transmitted outside prime viewing hours.

A number of types of programming are exempt from this requirement. These include:

- television programs that are not in English or mainly not in English
- non-vocal music-only programs and incidental or background music
- live sport coverage with unscheduled extended coverage that displaces a news program
- programs broadcast on a digital multi-channel during the simulcast period (unless previously broadcast with captions on the broadcasters core/simulcast channel).

Codes of practice developed by sections of the broadcasting industry in consultation with the broadcasting regulator, the Australian Communications and Media Authority (ACMA), also require broadcasters to clearly identify which programs have captions in their television guides and other consumer information.<sup>147</sup>

5.137 In a discussion report about access to electronic media for the hearing and vision impaired, DBCDE noted that by December 2011, under agreements between the free to air television broadcasters and the Australian Human Rights Commission, 85 per cent of content broadcast between 6 am and midnight will be captioned.<sup>148</sup>

5.138 One submitter related his frustration at the inaccessibility of many DVDs due to lack of captioning:

...not all DVDs are captioned. It can be a daunting experience when my son wants a DVD to watch and for me put it back on the shelf at the video store.

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146 Media Access Australia, *Submission 30*, [p. 2].

147 Department of Broadband, Communications and the Digital Economy (DBCDE), viewed 14 April 2010,  
[http://www.dbcde.gov.au/television/television\\_captioning/television\\_captioning\\_background](http://www.dbcde.gov.au/television/television_captioning/television_captioning_background)

148 DBCDE, 2009, *Access to Electronic Media for the Hearing and Vision Impaired: Approaches for Consideration – Discussion Report*, p. 16. viewed 14 April 2010,  
[http://www.dbcde.gov.au/\\_data/assets/pdf\\_file/0004/123187/Media\\_Access\\_Review\\_Discussion\\_Report.pdf](http://www.dbcde.gov.au/_data/assets/pdf_file/0004/123187/Media_Access_Review_Discussion_Report.pdf)

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For him to throw a tantrum and for me to explain that this DVD is not accessible. This should not happen. It is not fair on my son.<sup>149</sup>

5.139 The committee notes that since 1 July 2007 all film and television productions that receive public funding through Screen Australia have been required to provide captioning for theatrical and DVD releases.<sup>150</sup> The committee further notes that since 1 January 2010, this requirement has also applied to all Australian films which receive film investment funding.<sup>151</sup>

5.140 One submitter argued the case for all publicly funded education and information DVDs to have closed captions, as without them a significant proportion of the population is unable to access public information.<sup>152</sup> The Deafness Forum of Australia added that 'research has shown that captioning of educational materials not only improves communication access for deaf and hearing impaired, but also improves literacy for all students'.<sup>153</sup>

5.141 FaHCSIA drew the committee's attention to its Captioning Services Program, which funds a service provider to deliver captioning and distribution of community service and education DVDs for the hearing impaired.<sup>154</sup>

5.142 In 2006 Access Economics estimated the annual cost of captioning in Australia to be \$18 million, with the largest element by far (at \$14 million) being free to air television captioning services.<sup>155</sup>

#### *Captions in cinemas*

5.143 The committee heard evidence that people with a hearing impairment have difficulty accessing movies because only very few cinemas provide captioning on very few films. Ms Leonie Jackson summed up the frustration of many in her submission:

I enjoy going to the movies. In order to access movies, I need to wait until the cinema in the city is showing a film with open captions. Most of the time, I miss out because they...pick films I do not want to see or films are scheduled at times when I cannot attend as I work full time. Last month, I

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149 Alex Jones, *Submission 80*, [p. 3].

150 DBCDE, 2009, *Access to Electronic Media for the Hearing and Vision Impaired: Approaches for Consideration – Discussion Report*, p. 32; and Screen Australia, *Program guidelines: Production Financing March 2010*, p. 8.

151 DBCDE, 2009, *Access to Electronic Media for the Hearing and Vision Impaired: Approaches for Consideration – Discussion Report*, p. 32.

152 U.N. Bahti, *Submission 178*, p. 1.

153 Deafness Forum of Australia, *Submission 34*, p. 20.

154 FaHCSIA, *Submission 50*, p. 4.

155 Access Economics, *Listen Hear! The economic impact and cost of hearing loss in Australia*, February 2006, p. 61.

was excited to see that the local cinema...[was] showing an English-speaking film with open captions and audio description. I went to see Public Enemy and enjoyed the experience like others. So you can imagine my disappointment when a mere two weeks later, the cinema stopped advertising films with open captions.<sup>156</sup>

- 5.144 Another person was quoted in a similar vein by Deafness Forum Australia:

My friends have stopped asking me to go to the movies with them because I can't hear what is being said at our local cinema, and they don't want to drive all the way to George St to go to the movies.<sup>157</sup>

- 5.145 Under a proposed voluntary agreement between Australian cinema owners and the Australian Human Rights Commission, cinema owners sought a suspension of the *Disability Discrimination Act 1992* under section 55 of the Act while cinemas are upgraded so that the number of Australian screens capable of delivering captions can be increased to 35.<sup>158</sup> Critics noted that this target represents just 0.3 per cent of all movies screened each week in Australia.<sup>159</sup>

- 5.146 Protest group Action on Cinema Access staged a national rally on 13 February 2010 to protest against the proposed suspension of their capacity to lodge complaints about restricted access to cinemas under the *Disability Discrimination Act 1992*. Protestors also called for full captioning and audio description for all movies shown in Australia.<sup>160</sup>

- 5.147 The committee notes that on 16 April 2009 the Human Rights Commission decided that it would not grant an exemption under section 55 of the *Disability Discrimination Act 1992*, as requested by cinema company owners. No further details were available at the time this report was tabled.

### ***Other assistive technologies***

- 5.148 The committee heard that there are many other technologies available to assist people with a hearing impairment.

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156 Ms Leonie Jackson, *Submission 26*, [p. 1].

157 Ruth, 67, quoted in Deafness Forum of Australia, *Submission 34*, p. 23.

158 DBCDE, 2009, *Access to Electronic Media for the Hearing and Vision Impaired: Approaches for Consideration – Discussion Report*, p. 16; see also Deaf Children Australia website *Cinema access: background*, viewed 14 April 2010,  
[http://www.deafchildrenaustralia.org.au/cinema\\_access\\_background](http://www.deafchildrenaustralia.org.au/cinema_access_background)

159 Deaf Children Australia website *Cinema access: background*, viewed 14 April 2010,  
[http://www.deafchildrenaustralia.org.au/cinema\\_access\\_background](http://www.deafchildrenaustralia.org.au/cinema_access_background)

160 ABC News, *Cinema Captions Rally*, 13 February 2010, viewed 20 April 2010  
[http://www.deafchildrenaustralia.org.au/ActionOnCinemaAccess\\_Community\\_Protest\\_on\\_AB\\_C\\_News](http://www.deafchildrenaustralia.org.au/ActionOnCinemaAccess_Community_Protest_on_AB_C_News)

5.149 Assistive devices, such as specialised alarm clocks and fire alarms are essential in the day to day lives of those with hearing loss. In the words of one hearing impaired man quoted by a submitter:

How soundly would you sleep in your hotel room if you knew you would not be woken if the fire alarm went off?<sup>161</sup>

5.150 DOHA noted that there is no funding assistance available for assistive devices under the Australian Government Hearing Services Program.<sup>162</sup> The cost to individuals of assistive devices was drawn to the committee's attention:

Apart from hearing aids, essential assistive devices are expensive. These should have a tax deductible allowance for working people and be at a minimal cost to those who are on pensions.<sup>163</sup>

5.151 Better Hearing Australia supports people with a hearing impairment to access assistive devices by providing advice and demonstrations of technologies available.<sup>164</sup>

### ***Hearing loops in public places***

5.152 It will be useful to provide a description of a hearing induction loop here:

A loop system consists of a loop of wire around an area (eg a room) that is connected to an amplifier. A signal (eg television, stereo, PA system etc) goes to the amplifier, which drives a current through the loop. As the current from the amplifier flows through the loop, it creates a magnetic field within the looped area and transmits to the telecoil in a hearing aid or in a specifically [designed] induction loop receiver within the looped area.

When a hearing aid user switches their hearing aid to the 'T' position on the hearing aid, the telecoil in the hearing aid picks up the changes in the magnetic field and converts them back into alternating currents. The alternating currents are amplified and converted by the hearing aid into sound.<sup>165</sup>

5.153 The committee heard evidence that the provision of hearing induction loops in many public places would be of great benefit to hearing aid users, particularly in specific service environments. For example Ms Shona Fennell commented in her submission that '[all] facilities caring for the elderly ought to have hearing loops and assistive devices as a matter of course to make the quality of life acceptable for them.'<sup>166</sup>

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161 Bill, 50, quoted in Deafness Forum of Australia, *Submission 34*, p. 24.

162 DOHA, *Submission 54*, p. 50.

163 Ms Shona Fennell, *Submission 108*, [p. 1].

164 Better Hearing Australia, *Submission 7*, p. 3.

165 Hearing Australia information sheet, *Audio Frequency Induction Loops*, viewed 14 April 2010, [http://www.hearing.com.au/digitalAssets/5976\\_1208845840667\\_Loops2.pdf](http://www.hearing.com.au/digitalAssets/5976_1208845840667_Loops2.pdf)

166 Ms Shona Fennell, *Submission 108*, [p. 1].

5.154 Ms Nicole Lawder of Deafness Forum Australia described to the committee the experience of accessing an induction hearing loop, and the difference it can make for people:

The way a hearing loop works...is that you are not hearing what the person is saying through the room with other background noises and paper rustling. You turn your hearing aid over to the T switch and it is like a little radio receiver in your ear. When someone speaks into the microphone—even without amplification—that sound is going directly into your hearing aid, so you are getting a much better quality, especially at something like conferences, where people are talking to their neighbours and getting things out of their bags. It can be quite difficult for the person with a hearing aid to follow what is being said. So, they are really valuable in meeting rooms, theatres, convention centres and all types of conference centres...Some people even have them in their own car and lounge room and when they have their family there they may wear a little lapel [microphone]. It is not amplifying the voice but it is allowing the person with the hearing aid to hear much better what that person is saying...Some families where there are three or four members with a hearing loss find that looping their lounge or family room is really useful.<sup>167</sup>

5.155 Judith Raxworthy, who has been deaf for 30 of her 61 years, stated that:

My greatest frustration is lack of hearing access to public buildings, transport, entertainment and education. There is a serious lack of access in any area where oral communication is used.<sup>168</sup>

5.156 Yvonne Batterham described the somewhat ironic situation she found herself in when she attempted to work for improved access:

Technology such as audio loops and captioning was slow to be introduced. This was an unfair situation and so I decided to join the disability access committee of my local council to broaden my knowledge of the situation. I also attended a couple of council meetings and discovered that not only did the room lack an audio loop but it did not even have a PA system. I could not participate in the meetings.<sup>169</sup>

5.157 Evidence was provided to the committee that theme parks and other public venues do not always make themselves accessible to people with a hearing impairment:

Many of Australia's iconic tourist destinations are inaccessible to people who are Deaf or hearing impaired. Live performances at places like the

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167 Ms Nicole Lawder, CEO, Deafness Forum of Australia, *Committee Hansard*, 12 October 2009, pp 30-31.

168 Ms Judith Raxworthy, *Submission 83*, [p. 1].

169 Ms Yvonne Batterham, *Submission 129*, p. 6.

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Australia Zoo in Queensland should have captioning and an area with an audio loop so all can enjoy the proceedings.<sup>170</sup>

At Seaworld or Movie World the theatres and where they have the live shows with stuntmen doing all sorts of action could all quite easily be looped.<sup>171</sup>

5.158 Better Hearing Australia acknowledge the value of making public venues more accessible, and 'continually lobbies government, councils and the community for audio loop installations in public venues...',<sup>172</sup> and some witnesses commented that hearing loops are increasingly common: 'Many public halls, churches and cinemas now have installed induction loop systems to benefit people who are hearing impaired.'<sup>173</sup>

5.159 Deafness Forum of Australia noted the existence of portable hearing loop units, which could be moved from counter to counter as needed in a customer service situation. They note international examples where organisations are required to supply induction loops. Barclay's Bank in the United Kingdom has undertaken to install loops in all its branches. Church organisations in Switzerland and Sweden are required to install loops in churches.<sup>174</sup>

5.160 Deafness Forum of Australia made the following suggestion, which was echoed throughout the evidence before the committee:

Any service desk or information desk should have at least one audio loop installed to assist a hearing impaired person make an enquiry. If the building or office has regular verbal announcements these should also be provided in some visual format. All Australians have the right to access their government and other public areas. Government offices and public buildings should be showcasing best practice in the area of access as they are using taxpayer's funds.<sup>175</sup>

5.161 The committee notes that the House of Representatives Standing Committee on Legal and Constitutional Affairs reported on proposed disability access standards for the Building Code of Australia in June 2009.<sup>176</sup> The committee found, in regard to

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170 Deafness Forum of Australia, *Submission 34*, p. 24.

171 Ms Nicole Lawder, CEO, Deafness Forum of Australia, *Committee Hansard*, 12 October 2009, p. 32.

172 Better Hearing Australia, *Submission 107*, p. 3.

173 SHHH Australia, *Submission 72*, [p. 5].

174 Deafness Forum of Australia, *Submission 34*, p. 25.

175 Deafness Forum of Australia, *Submission 34*, p. 25.

176 House of Representatives Standing Committee on Legal and Constitutional Affairs, *Access All Areas: Report of the Inquiry into Draft Disability (Access to Premises) Standards*, June 2009, viewed 15 March 2010,

[http://www.aph.gov.au/house/committee/laca/disabilitystandards/report/Full\\_Report.pdf](http://www.aph.gov.au/house/committee/laca/disabilitystandards/report/Full_Report.pdf)

draft hearing access requirements, that the proposed standards 'would provide a significant improvement over the existing provisions of the Building Code'<sup>177</sup>, and that it would be 'appropriate for future fitout standards to include requirements for hearing augmentation systems as well as passive design features...such as counters and reception desks'.<sup>178</sup> These standards have now been accepted, and will apply to all building approvals of certain building classes lodged on or after 1 May 2011.<sup>179</sup>

5.162 The committee heard evidence that having building regulations in place may not be enough to ensure access to facilities. Richard Brading of SHHH Australia explained to the committee:

If you look at public buildings that are currently being built, certainly in New South Wales, which I know well, they get a huge list of planning conditions that may include compliance with Australian standards but when it comes to the final certification a lot of those things just get forgotten or they put in the cheapest option that may never work and tick it off because the people who certify these buildings do not know how to test it. It would need a system where some accredited testing body or private technical people who could be accredited tested these things to make sure they actually work. It is very disappointing for people with a hearing impairment to be told there is a loop and then no-one in the venue knows where the on-off switch is and that sort of thing.<sup>180</sup>

5.163 Mr Brading added that making a complaint may be the best way of achieving compliance:

We encourage people to make their own complaints in relation to [lack of access for the hearing impaired]. Many of them do...The Deafness Forum with great difficulty took one hotel in New South Wales to the tribunal and eventually they very grudgingly put a loop in. The Deafness Forum was so grateful they then held their conference there for the next couple of years.<sup>181</sup>

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177 House of Representatives Standing Committee on Legal and Constitutional Affairs, *Access All Areas: Report of the Inquiry into Draft Disability (Access to Premises) Standards*, June 2009, p. 105.

178 House of Representatives Standing Committee on Legal and Constitutional Affairs, *Access All Areas: Report of the Inquiry into Draft Disability (Access to Premises) Standards*, June 2009, p. 105.

179 Attorney General's Department, *Premises Standards Frequently Asked Questions*, p. 3, viewed 15 April 2010, [http://www.ag.gov.au/www/agd/agd.nsf/Page/Humanrightsandanti-discrimination\\_Disability\(AccesstoPremises-Buildings\)Standards](http://www.ag.gov.au/www/agd/agd.nsf/Page/Humanrightsandanti-discrimination_Disability(AccesstoPremises-Buildings)Standards)

180 Mr Richard Brading, Chair, SHHH Australia, *Committee Hansard*, 11 November 2009, p. 42.

181 Mr Richard Brading, Chair, SHHH Australia, *Committee Hansard*, 11 November 2009, p. 42.

## Committee comment

5.164 As the committee noted at the start of this chapter, issues of access are seldom far from a hearing impaired person's thoughts. The range of issues and depth of passions the inquiry found around access issues testify to their significance.

5.165 The committee heard from many people and organisations of the emotional and financial distress that often follows when former child clients of Australian Hearing lose their eligibility for support at age 21. The evidence indicates that these people struggle to find the specialised support they need in the private sector. It is obvious to the committee that the financial burden of finding between \$4,000 and \$17,000 every three to five years for replacement hearing devices is causing great distress to young people at a vulnerable stage of their lives, and may be disadvantaging them in the pursuit of their education, training and employment aspirations.

5.166 The committee accepts that whilst the cost burden of hearing impairment is particularly acute for young people, it is also a burden on all low income Australians. Evidence was heard from people in their thirties, forties and fifties that the cost of hearing devices – so essential for working and functioning in society - was a burden on themselves and their families.

5.167 The committee believes that the costs to the Australian Government of expanding Australian Government Hearing Services Program eligibility to provide assistance to more Australians, especially those on low incomes, would be off-set by the improved productivity and contribution those people would be able to make if their hearing needs were better met.

5.168 The committee is left in no doubt that access to hearing services in remote and regional Australia can be a significant challenge, and that the effect of this may be that people living in these areas with a hearing impairment are not receiving the support they need. The evidence suggests that the greatest challenge for providers of services in regional and remote areas is attracting and retaining qualified staff.

5.169 The committee's visit to the Royal Institute of Deaf and Blind Children (RIDBC) included participation in a teleconference session and speaking to the family of a hearing impaired child. Even though the committee had limited time to speak to the family, it was clear that the program was having a significant impact on the ability of the family to assist their child to gain language skills, to participate in family life and enhance the child's social interactions.

5.170 The program run by the RIDBC uses relatively inexpensive technology. By teaming the range of specialists in Sydney with each family, the program delivers services which address the needs of each child and provides much needed support to families who would otherwise be unable to access such services.

5.171 The committee considers that further expansion of the program should be considered by governments as a means of delivering specialist services in rural and

remote areas as an effective and efficient means of enhancing the lives of children with hearing impairment and supporting their families.

5.172 The committee heard about the particular challenges of educating children with hearing loss in rural and remote areas. RIDBC's innovative Teleschool approach makes full use of new communication technologies to assist families to access the best possible support for their children, regardless of where they live. The Teleschool service delivery model should be considered by all providers of education to children with hearing loss.

5.173 The committee is of the view that the hearing health industry, professional associations and the higher education sector might consider the problem of attracting qualified staff to rural and regional areas in the way that teacher education programs address this issue. Graduate teachers in their first year of teaching often undertake a term of rural or country service, before they can teach in places that may be more desirable to them, such as in the city. A similar 'country service' arrangement for graduate audiologists, whilst not necessarily a long term solution, would at least direct much-needed professional skills to rural areas in the short to medium term.

5.174 The committee found that the commitment by all Australian governments to universal newborn hearing screening was widely welcomed by the hearing health sector, and that there will be substantial long term benefits for individuals and for the community as a whole to early diagnosis and intervention.

5.175 The committee heard that the incidence of hearing loss in children doubles by age five and triples by age 10, and that these children are often only identified as hearing impaired when teachers and parents notice they have fallen behind academically, or are having behavioural issues. The committee believes that the individual children concerned would benefit greatly if children's hearing loss was diagnosed and managed when their schooling commences. The committee also believes that, given the implications of undiagnosed hearing loss for a person's life, society in general will benefit from earlier diagnosis and intervention.

5.176 Whilst the committee is pleased to note that Office of Hearing Services (OHS) support now remains available to all OHS clients who receive custodial sentences, the shifting of responsibility to the states and territories for those prisoners diagnosed after their incarceration seems inequitable, and is likely to be confusing to administer. The committee believes that widespread, easy access to hearing assessment and intervention is in the interests of hearing impaired prisoners, and the community at large. The committee has made recommendations in chapter eight that address this issue.

5.177 The committee was concerned at the reports of inappropriate services being provided by some audiologists. The committee notes the Audiological Society of Australia Professional Standards of Practice, and believes that these standards should be promoted to help healthcare consumers understand the nature of services being offered by individual providers, serve as a reference point for hearing health

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professionals to benchmark their own practices, and design their services and products.

5.178 The committee was moved by the evidence which detailed the shock and emotional distress that sometimes accompanies initial diagnosis of hearing loss. The committee believes that diagnosis of a hearing loss is always likely to be a shock, and that there will always be a flow on impact for families. However the evidence suggests that the impact of the news might be reduced if it was related by someone with skills in counselling support. To that end, hearing health practitioners could benefit from professional development which addressed this area.

5.179 The committee heard that professional standards exist for sign language interpreters for the deaf, but that there are no agreed standards for interpreters working in an educational setting as interpreters or as aids. The committee believes that deaf children are already disadvantaged in educational settings, and that it is essential for high standards of support to be available.

5.180 Many people raised in evidence the issue of under-usage of hearing aids in Australia. The seriousness of this issue is twofold: first, that people who should be benefiting from a technological intervention are not doing so; and second, that Australian Government resources may be spent on these un-used devices which could be better spent elsewhere.

5.181 If under-use of hearing aids is as high as 30 per cent, as the committee heard, then there is a pressing need to understand why people choose not to wear their hearing aids, and what can be done to influence their future behaviour. The committee believes that earlier diagnosis of hearing loss and take-up of hearing aids may improve usage levels later in life, as people have more time to adjust to wearing and using aids. The committee has made recommendations in chapter six about research to understand and address this phenomenon.

5.182 The committee heard that one of the issues around under-use of hearing aids may be the supply-driven nature of the voucher program. In other words, that in the past there has been an emphasis on providing devices rather than addressing need and achieving hearing health outcomes. The committee notes that the OHS has responded to this by introducing a Minimum Hearing Loss Threshold into eligibility requirements for a voucher from 1 July 2010. Testing of voucher applicants' hearing against the new threshold is intended to help target the provision of publicly funded hearing aids to those with the greatest need.

5.183 The committee heard from a number of sources that people are concerned about being pressured into topping-up their hearing aid vouchers with additional features. The committee's greatest concern is that people feel as though they are pressured into taking top-up options which are not clinically necessary.

5.184 Evidence from representatives of the hearing aid industry was that promoting top-ups on voucher devices is necessary if private practices are to be viable. This

seems to justify the concerns of consumers, as the incentive is strong to push top-ups without necessarily having regard to clinical need.

5.185 The committee understands that people who are eligible for vouchers will receive devices which meet their clinical needs at no cost to themselves, and that having the option to top-up with optional features creates welcome flexibility for consumers. However the committee agrees with the Hearing Care Industry Association that up-selling hearing aids without clinical need to vulnerable consumers is an unethical and exploitative practice. It is in the interests of people with a hearing impairment, and hearing aid manufacturers and distributors that such behaviour be identified and addressed.

5.186 Allegations by witnesses from the private audiology and hearing aid industry that the OHS voucher program may in some way be financially disadvantageous to the interests of private hearing services warrant investigation by the OHS.

5.187 The committee would like to acknowledge the initiative and energy of those people and organisations operating hearing aid banks. Without their efforts and commitment, many Australians would have no access to hearing aids and their lives would doubtless be the poorer for it. The committee believes that if its recommendations are implemented, the most vulnerable members of our society will have greater access to hearing aids through government support in future.

5.188 The committee acknowledges the technological advances represented by the cochlear implant, and believes from the evidence before it that it is a great benefit for those people who have received implants. Like so many hearing aid technologies, the cost of cochlear implants is very high, in particular the cost of repairing, maintaining and replacing the cochlear implant speech processors.

5.189 The replacement costs of speech processors are met for Australian Hearing clients less than 21 years of age. However for clients of the OHS aged over 21 years, these replacement costs are not met. The committee was told that this situation appears inequitable. The implication of the policy is that older people who are eligible for OHS services, who by definition are usually on low incomes, can afford up to \$17,000 every three to five years. This is plainly not the case, as the committee has often heard.

5.190 The committee acknowledges that the prevalence of hearing loss will increase, particularly among older Australians, and that speech processors are expensive items. Nevertheless, the committee believes that the policy should be reviewed with an eye to aligning the speech processor replacement policy for all eligible clients of Australian Government Hearing Services Programs.

5.191 The committee acknowledges that inadequate facilities are a source of frustration for many hearing impaired would-be movie-goers. Few things highlight the services that non-hearing impaired Australians take for granted as neatly as going to see a movie.

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5.192 Similarly, the issue of limited access to television programs and DVDs through captioning emerged as a source of frustration for people with a hearing impairment.

5.193 The committee acknowledges the work that the Department of Broadband, Communications and the Digital Economy is already undertaking to improve access for the hearing impaired to television, DVDs and the movies. The committee also acknowledges the active role that the Australian Human Rights Commission has taken in these issues. The committee urges the department and the commission to note the issues that have been raised in this inquiry in the hope that they will guide future negotiations and regulation in the area of access to media for people with a hearing impairment.

5.194 The committee heard that there are still many circumstances where people with a hearing impairment will experience difficulty accessing public services due to a lack of facilities, such as induction hearing loops. Access to public services is a fundamental precondition for living an independent and productive life. As was pointed out to the committee, communication is a problem not just for the hearing impaired, but also for the people with whom they want to communicate.

5.195 Relatively inexpensive and easily portable hearing loop technology exists to enable all services, including government services, banks and retailers, to welcome and assist hearing impaired Australians. With the rate of hearing impairment forecast to grow to one in four Australians, it is unacceptable that all organisations with a public shopfront are not easily accessible to people with a hearing impairment.

## **Recommendations**

### **Recommendation 4**

**5.196 The committee recommends that eligibility for the Australian Government Hearing Services Voucher Program be extended to include all Australians, subject to eligibility and a means test.**

### **Recommendation 5**

**5.197 The committee recommends that former child clients of Australian Hearing remain eligible for Australian Hearing support until the age of 25. This eligibility is to be subject to a means test. Former child clients of Australian Hearing who do not meet the means test are to have the option to access Australian Hearing support on a fee-for-service basis until the age of 25.**

### **Recommendation 6**

**5.198 The committee recommends that state and territory governments expand eligibility for Patient Assisted Travel Schemes to include support for people accessing audiological services.**

### **Recommendation 7**

**5.199** The committee recommends that the Australian Government provide funding to expand services for hearing impaired children in rural and remote areas through e-technology based programs such as that developed by the Royal Institute for Deaf and Blind Children.

### **Recommendation 8**

**5.200** The committee recommends that the Council of Australian Governments extends its commitment for universal newborn hearing screening to include a hearing screening of all children on commencement of their first year of compulsory schooling. Given the crisis in ear health among Indigenous Australians, the committee believes urgent priority should be given to hearing screenings and follow up for all Indigenous children from remote communities on commencement of school.

### **Recommendation 9**

**5.201** The committee recommends that the Audiological Society of Australia develop and make available to its members resources and professional development that promotes better understanding about the impact a diagnosis of hearing loss can have on people, and which provides resources and techniques for counselling and supporting people at the time of diagnosis.

### **Recommendation 10**

**5.202** The committee recommends that education providers develop professional standards for interpreters working in educational environments. These standards should be based on existing standards, such as the National Accreditation Authority for Translators and Interpreters paraprofessional level accreditation, or the National Auslan Interpreter Booking and Payment Service / Australian Sign Language Interpreter's Association Deaf Relay Certification.

### **Recommendation 11**

**5.203** The committee recommends that the Office of Hearing Services engage with representatives of the hearing aid manufacturing and distribution industry, private providers of hearing health services, and hearing health consumers to investigate:

- (a) the relationship between the voucher program, top-ups and the financial viability of private health services; and
- (b) whether extending the capacity to audiologists to bulk bill Medicare directly for clinical services would have any impact on the financial viability of private health services (i.e. would it ameliorate the need to push 'top-ups' to stay viable?); and
- (c) that the findings of these investigations be made publicly available for the consideration of all hearing health stakeholders.

**Recommendation 12**

**5.204** The committee recommends that the Office of Hearing Services review its policy with regard to the replacement of damaged, lost or obsolete cochlear implant speech processors for eligible clients over 21 years of age, and if possible align it with the replacement policy for eligible clients less than 21 years of age.

**Recommendation 13**

**5.205** The committee recommends that the public counters in all government service shopfronts be accessible to people with a hearing impairment through the provision of hearing loop technology. The committee recommends that the Office of Hearing Services coordinate a project which sets targets toward that end for all government agencies, at all levels of government, and that these be publicly reported upon.



# CHAPTER 6

## ADEQUACY OF HEARING HEALTH RESEARCH PROGRAMS

We need to have evidence based practice. We only work on evidence based practice.

Ms Dimity Dornan, Hear and Say Centre, *Committee Hansard*, 7 December 2009, p. 71.

### **Introduction**

6.1 This chapter examines the adequacy of current hearing health research programs and explores the need to overcome identified research gaps.

### **Major Hearing Health Research Programs and Organisations**

6.2 The Australian Government provides financial support for hearing health research through a number of funding mechanisms, including:

- the Hearing Loss Prevention Program (HLPP), announced in May 2007. This ongoing program (\$3.5 million in 2007-08) provides funding for research and prevention activities to help reduce the burden and incidence of avoidable hearing loss in young people, Indigenous Australians, and those in the workplace. As this is a designated 'ongoing program', there will be opportunities to respond to identified gaps and emerging needs after the initial establishment phase of the program. Six research projects have been commissioned through this program. The research programs funded to date address issues for all three target groups;
- research by the National Acoustic Laboratory (NAL) which is funded under the Australian Government Hearing Services Program, Community Service Obligation (CSO) arrangements;
- funding for the National Health and Medical Research Council (NHMRC) grants, which currently includes funding for research into deafness, ear physiology, hearing aids, otitis media and tinnitus;
- the Cooperative Research Centre (CRC) program administered by the Department of Innovation, Industry, Science and Research (DIISR) which in 2007 provided funding of \$32.55 million over seven years to the HEARing CRC;<sup>1</sup>
- the Department of Veterans Affairs (DVA) which is undertaking a study of the Neuromonics tinnitus program, which has been available in private

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1 Department of Health and Ageing (DOHA), *Submission 54*, pp 57-61.

practices in Australia for several years. Approximately 60 veterans are taking part in the study, with results to be finalised in 2011.<sup>2</sup>

6.3 The committee received many submissions that noted Australia's position as a world leader in hearing health research, and which encouraged Australian governments to maintain adequate funding for hearing health research, particularly for the NAL.<sup>3</sup>

6.4 The NAL focuses on research into three major areas: better ways of assessing hearing loss; hearing rehabilitation once hearing loss has been diagnosed including advancement of hearing aid devices; and prevention, including the effects of noise on people.<sup>4</sup> NAL is recognised internationally for its work. Signal processing software used in hearing aids that has been developed by NAL is used widely throughout the world.<sup>5</sup> In the words of Professor Dillon, Director of NAL: '...any little place or shop around the world that sells hearing aids will know about NAL because they use our methods on a daily basis.'<sup>6</sup>

6.5 NAL is currently undertaking the Longitudinal Outcomes of Children with a Hearing Impairment (LOCHI) study, which is the most comprehensive study of its type in the world. NAL has recruited 475 children with a hearing loss at the time, or not long after, they received their first hearing aids.<sup>7</sup> LOCHI will examine the development of speech, language function and psychosocial skills, and the educational attainment of the children. The study measures the:

- importance of early detection of hearing loss, intervention and special education;
- effects on outcomes of a range of factors including age at time of intervention, cause of hearing loss, type of hearing aid prescription and type of intervention;
- rate of development and relative impact of different factors at different ages.

When all data is available, the study will assist in the understanding of:

- whether normal speech and language development among hearing impaired children who have received early intervention will continue through school years;

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2 Department of Veterans Affairs (DVA), *Submission 135*, p. 3.

3 See for example Dr Jenny Rosen, *Submission 2*, [p. 3]; Self Help for Hard of Hearing People (SHHH), *Submission 72*, [p. 13]; Mr Paul Hickey, *Submission 115*, [pp 4-5].

4 DOHA, *Submission 54*, p. 59; Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 13 October 2009, p. 50.

5 DOHA, *Submission 54*, p. 59.

6 Professor Harvey Dillon, Director, National Acoustic Laboratory (NAL), *Committee Hansard*, 13 October 2009, p. 51.

7 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 13 October 2009, p. 46.

- the impact of many factors on long-term speech, language, functional, psychosocial; and
- the impact of hearing loss on educational attainment.<sup>8</sup>

6.6 The HEARING CRC is a consortium of research, clinical and industry organisations that facilitates communication between academic, clinical and industry members with the aim to ensure coordinated research. The HEARING CRC focuses on the development of targeted remediation of lost productivity that results from hearing loss in adults and children, and research into technical and behavioural means of preventing hearing loss. The HEARING CRC has four research programs:

- biomolecular, genetic, physiological solutions;
- intelligent sound processing;
- integrated bioengineering; and
- clinical tools and techniques.<sup>9</sup>

6.7 Other key Australian hearing health research organisations include:

- Macquarie University (audiology and cognitive research);
- The Bionic Ear Institute;
- University of Melbourne (audiology and cochlear implant research);
- Cochlear Ltd (cochlear implant development);
- Menzies School of Health Research; and
- The Ear Science Institute.<sup>10</sup>

## **Research Gaps**

6.8 Prior to the 2006 publication of *Listen Hear!* by Access Economics, there had been no definitive research on the economic impact of hearing loss and impairment in Australia. Most studies have focused on clinical, prevalence and social issues connected to hearing loss.<sup>11</sup>

6.9 A study into the epidemiology of hearing loss conducted by the then Centre for Population Studies in Epidemiology within the South Australian (SA) Department of Human Services has been the only epidemiological study of hearing loss in

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8 DOHA, *Submission 54*, p. 60.

9 HEARING Cooperative Research Centre (CRC), *Submission 45*, [p. 3]; DOHA, *Submission 54*, p. 60.

10 HEARING CRC, *Submission 45*, [p. 2]; Dr Jenny Rosen, *Submission 2*, [p. 3]; Ear Science Institute, *Submission 66*; The Menzies School of Health Research, *Submission 174*.

11 Access Economics, 2006, *Listen Hear!: the economic impact and cost of hearing loss in Australia*, p. 9.

Australia. As noted by Access Economics, in order to monitor progress in the management and prevention of hearing loss there is a need to maintain an accurate and current epidemiology.<sup>12</sup>

6.10 Submissions received by the committee also outlined the need for further research into the feasibility of a national hearing and tracking database for newborns, the impact of recreational noise and personal media players on hearing health, overcoming occupational noise induced hearing loss, acoustic shock, the incidence of comorbidity of hearing loss and other disabilities, mental health issues associated with hearing impairment, addressing employment issues for people with hearing impairment, caring arrangements, ototoxicity, and Meniere's Disease.

#### ***A National Tracking Database for Newborns***

6.11 The committee received many submissions expressing frustration at the lack of nationally consistent data about newborns and children diagnosed with hearing impairment.

6.12 In particular, Professor Dillon and NAL have discovered through the LOCHI study that a significant number of children who are diagnosed with hearing impairments are not recorded to have received treatment:

A gap that we just discovered actually only in the last month or two, [is that] 25 per cent of the children diagnosed [with hearing loss] have not ended up with rehabilitation, so they have fallen through the cracks somewhere along the way.<sup>13</sup>

6.13 The committee heard from Professor Dillon that this research was undertaken only in New South Wales (NSW), however it is likely that the same is occurring in other parts of Australia.<sup>14</sup> Further investigation by NAL into this matter has found 15 of the 25 per cent stated above made it to Australian Hearing, but were not issued with hearing aid devices. The reasons for the 'missing' 10 per cent remain unknown. Professor Dillon noted that many individual states had their own records and databases, however given this 10 per cent gap:

There is a real need for a national database associated with newborn screening so that we do not have to catch this up on a special-occasion basis, but it just becomes part of the system...The way I envisage it working is...that information would be [regularly] downloaded from the state databases to a national one, and there we could compare the children

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12 Access Economics, 2006, p. 79 (citing Wilson D, Xibin S, Read P, Walsh P, Esterman A, 1992 'Hearing Loss – an underestimated public health problem' *Australian Journal of Public Health* 16:282-286 and Wilson D H, Walsh P G, Sanchez L, Read P, 1998 'Hearing Impairment in an Australian Population', Centre for Population Studies in Epidemiology, South Australian Department of Human Services).

13 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 13 October 2009, p. 47.

14 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 11 November 2009, pp 91, 47.

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who have been shown to have a hearing loss with who has been picked up by Australian Hearing and received rehabilitation. Immediately then we would spot the gap in every state and those children could be followed up.<sup>15</sup>

6.14 The discovery by NAL of children who are diagnosed with hearing impairments, but who are not known to have received intervention, is a concern in relation to their development outcomes. As was discussed in chapter four, research has shown the benefits of identifying hearing impairments in children at a young age, provided that diagnosis is followed by early intervention.

6.15 As noted in chapter two, children with hearing loss represent only a small proportion of all people with a hearing loss. However the impact on this group is particularly significant as they require a high level of support in developing communication skills and accessing education.<sup>16</sup> Due to the lack of research that tracks patient outcomes nationally, it can be difficult for parents to determine the most appropriate intervention for their child, and which communication strategies and hearing technologies to adopt.<sup>17</sup>

6.16 Submissions received by the committee referred to new trends in therapy services for the deaf, including a move away from hands-on therapy services and an increasing number of cochlear implants in children. Submissions outline the need to research the educational, cognitive, linguistic, social and emotional development outcomes, and future life situations of children who engage in different forms of treatment for hearing loss, in order to help parents to make informed decisions about treatment and intervention options.<sup>18</sup>

6.17 The Department of Health and Ageing (DOHA) submitted to the committee that:

A national data set for state and territory neonatal hearing screening and post screening services is in the process of being developed, and will;

1. Allow for the monitoring and evaluation of neonatal hearing screening programs
2. Underpin the development of a nationally consistent quality and standards framework
3. Permit for national and international benchmarking and collaboration

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15 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 11 November 2009, pp 47, 92.

16 DOHA, *Submission 54*, p. 21; Access Economics, 2006, pp 16-17.

17 Australia New Zealand Parents of Deaf Children (ANZPOD), *Submission 24*, p. 11; Parents of Hearing Impaired South Australia (PHISA), *Submission 25*, [p. 10]; Government of South Australia, *Submission 145*, p. 19; and Professor M Hyde, Professor D Power, *Submission 160*, p. 3.

18 The Cora Barclay Centre, *Submission 64*, p. 4; Professor M Hyde, Professor D Power, *Submission 160*, pp 5-6.

4. Enable research into risk factors and health conditions associated with permanent childhood hearing impairment.<sup>19</sup>

A national register will be established as part of the national approach to neonatal hearing screening and will be a central point for the collection and management of all data. The data parameters of a national register are yet to be finalised and consultation with key stakeholders will be undertaken to determine the most appropriate national register for neonatal hearing screening data. Consideration will also be given to the ethics of allowing academic and other researchers accessing data held on a national register for appropriate research projects.<sup>20</sup>

### ***Recreational noise and personal music players.***

6.18 Access Economics reported that 37 per cent of all hearing loss in Australia is preventable and is caused by exposure to excessive recreational or occupational noise.<sup>21</sup>

6.19 Many submissions received by the committee expressed concern with the lack of definitive research that exists regarding the impact of excessive recreational noise, particularly personal music players, but also including shooting, motor sport and the use of power tools.<sup>22</sup> Concern regarding exposure to excessive noise from personal music players was particularly in relation to use by young people.<sup>23</sup>

6.20 As was noted in chapter two, despite research evidence that exposure to noise through personal music players can be loud enough to pose a danger for hearing loss, it has not been well-established whether, or how much, this recreational exposure is contributing to significant, long-term hearing loss in later life.<sup>24</sup>

6.21 Some research into the effects of recreational noise is currently being undertaken. NAL has been funded under the HLPP to undertake a research project to establish the prevalence of hearing loss in adolescents, and the relationship to recreational noise.<sup>25</sup> This report is due to be released in December 2012. A complementary study by NAL will further provide a comprehensive picture of the noise exposure of young people, and an assessment of the contribution that different activities and environments pose on the hearing of young people over a lifetime. Edith

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19 DOHA, *Submission 54*, p. 41.

20 DOHA, *Submission 54*, p. 42.

21 Access Economics, 2006, p. 18 (citing Wilson et al 1998, p. 34).

22 University of Melbourne, Audiology and Speech Sciences, *Submission 9*, p. 2.

23 DOHA, *Submission 54*, p. 19.

24 DOHA, *Submission 54*, p. 19.

25 DOHA, *Submission 54*, p. 57.

Cowan University is also undertaking a similar research project into the effect of personal music players at high volumes among young people.<sup>26</sup>

6.22 Submissions received by the committee suggest that current research into the impacts of recreational noise should be extended into longitudinal population studies that establish the long-term effects of recreational noise exposure, including from personal music players.<sup>27</sup>

### ***Occupational noise induced hearing loss (ONIHL)***

6.23 Safe Work Australia estimate that a third of workers in Australia are exposed to noise levels that could lead to noise-induced hearing loss.<sup>28</sup> This hearing loss, which is entirely preventable, makes a substantial contribution toward the high cost of hearing loss to Australia, as discussed in chapter three.

6.24 Submissions received by the committee note that legislation already exists in Australia to limit noise exposure, and to protect employees from exposure to excessive noise in the workplace. However, submissions have argued that there are significant obstacles to the effective implementation and acceptance of occupational noise management which contribute to the failure of efforts to reduce personal noise exposure, and that understanding these barriers is a key research challenge.<sup>29</sup>

6.25 Safe Work Australia is undertaking research into ONIHL, including:

- analysis of the National Hazard Exposure Worker Surveillance (NHEWHS) Survey 2008, which gathered national data on the exposure of workers in Australia to various hazards, including loud noise. It also gathered data on the provision of control measures in Australian workplaces, including controls for noise exposure.<sup>30</sup> This information will enable identification of workers at risk of ONIHL, with the aim of reducing the incidence of ONIHL through better targeted occupational health and safety policy, enforcement and information/education campaigns; and
- the *Getting Heard* project, as mentioned in chapter two. This project will determine the personal and institutional factors that influence the control of hazardous noise exposure and the prevention of ONIHL. Outcomes from this

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26 DOHA, *Submission 54*, p. 57.

27 See for example University of Melbourne, Audiology and Speech Sciences, *Submission 9*, p. 2; Audiology Australia, *Submission 74*, p. 24; and Access Economics, 2006, p. 79.

28 Dr Fleur Champion de Crespigny, Assistant Director, Research and Education, Safe Work Australia, *Committee Hansard*, 19 March 2010, p. 2.

29 DOHA, *Submission 54*, p. 58; University of Melbourne, Audiology and Speech Sciences, *Submission 9*, p. 1; Dr Fleur Champion de Crespigny, Assistant Director, Research and Education, Safe Work Australia, *Committee Hansard*, 19 March 2010, p. 2.

30 Dr Fleur Champion de Crespigny, Assistant Director, Research and Education, Safe Work Australia, *Committee Hansard*, 19 March 2010, p. 2.

project will provide the Office of Hearing Services (OHS) and stakeholders with a greater understanding of why ONIHL still occurs among workers in Australia. The findings will also assist stakeholders in the design, implementation and evaluation of strategic initiatives to control hazardous occupational noise.<sup>31</sup>

6.26 Submissions received by the committee indicate that further research into the opportunity, ability, willingness and intent of workplaces to prevent hearing loss, the design of workplace equipment, and more appropriate forms of hearing protection, such as pharmacological protection, could have a large impact in improving workplace practices to prevent ONIHL.<sup>32</sup>

### ***Under-use of hearing aid devices***

6.27 As was discussed in chapter five, evidence suggests that between 20 and 40 per cent of all hearing aids provided with public funding may be under-used, or not used at all. The committee also received submissions from health practitioners and researchers that indicate a low take-up rate of hearing aid devices. This includes the suggestion that less than 20 per cent of adults who could benefit from hearing devices pursue those services, and less than 10 per cent of people who could benefit from cochlear implants seek this form of treatment.<sup>33</sup>

6.28 Submissions to the inquiry note that the low usage rates of hearing aids represents a waste of public funding, and that research into the reasons for under use of hearing aids is required, including cosmetic and technical problems.<sup>34</sup>

### ***Health outcomes and mental well-being of the hearing impaired***

6.29 As noted in chapter three, hearing loss has been linked to a range of increased risks for other health conditions including diabetes, stroke, elevated blood pressure and heart attack.<sup>35</sup>

6.30 DOHA reports a growing body of Australian and international research regarding the prevalence of mental illness among the hearing impaired. DOHA note, however, that research findings are inconsistent and even conflicting, which has resulted in '...the mental health industry in Australia being ill-equipped to adequately meet the need of people with a hearing difficulty'.<sup>36</sup>

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31 Safe Work Australia, *Submission 5*, [pp 1-2].

32 Access Economic, 2006, p. 79; University of Melbourne, *Submission 9*, p. 2; and New South Wales (NSW) Health, *Submission 167*, p. 19.

33 Access Economics, 2006, pp 74, 80; University of Melbourne, *Submission 9*, p. 6.

34 Neil and Susan Clutterbuck, *Submission 36*, [p. 2].

35 DOHA, *Submission 54*, p. 22.

36 DOHA, *Submission 54*, p. 23.

6.31 Submissions further identify the need to clarify potential links between hearing impairment, social isolation and mental health issues in order to develop methods for early intervention and treatment.<sup>37</sup> Access economics notes that long-term research is necessary in this area.<sup>38</sup>

6.32 DOHA has provided evidence to the committee that there is no research on the relationship between mental health and hearing impairment currently funded by the NHMRC, nor funded in previous years. Since 2005, the Australian Research Council has provided funding to support four child-specific research projects examining the relationship between hearing loss and mental health issues such as development of social skills, social participation and wellbeing and happiness.<sup>39</sup>

### ***The effects of ototoxicity***

6.33 Ototoxic substances are chemical substances that may damage the hair cells of the cochlear or the auditory pathway, and which can also increase the risk of preventable hearing loss.<sup>40</sup>

6.34 Ototoxic substances may be present in medicines, including antibiotics and chemotherapy treatments, or inhaled through the fumes of fuels, metals, fertilisers, herbicides or pharmaceuticals.<sup>41</sup> The nature of ototoxic substances is that they are often present in the workplace, which makes the issue of awareness and safety around these substances a workplace issue.

6.35 Evidence received by the committee suggests that little is known about the complete effect of ototoxic chemicals on long-term hearing loss, or how many people are exposed to these substances in the workplace. The findings from such research may help reduce the incidence of preventable hearing loss, and identify a need for different audiological tests to properly assess impacts of ototoxic exposure.<sup>42</sup>

### ***Meniere's Disease***

6.36 Meniere's disease affects around 40,000 people in Australia who consequently experience hearing impairment including fluctuating hearing loss, tinnitus, spinning and vertigo, and other symptoms.<sup>43</sup>

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37 Farmsafe Australia, *Submission 33*, p. 1.

38 Access Economics, 2006, pp 80-81.

39 DOHA, *Submission 54*, [p. 1].

40 DOHA, *Submission 54*, p. 19.

41 NSW Health, *Submission 167*, p. 5; Access Economics, 2006, p. 80.

42 Ms Marion Burgess, *Submission 172*, p. 4.

43 Meniere's Australia, *Submission 156*, pp 2, 4.

6.37 Meniere's Australia noted that few other submissions received in this inquiry mention Meniere's disease. Meniere's Australia has advised the committee that there is not research available that determines the cause of the disease, and that little funding is available from the Australian Government to advance this. Further, Meniere's disease is often misdiagnosed or undiagnosed. Meniere's Australia submit that more extensive research into the prevalence of the disease, rates of diagnosis, treatment and personal management options, and the impact on the employment and lifestyles of those with the disease is necessary.<sup>44</sup>

### **Committee comment**

6.38 The committee would like to note that it has heard from many sources during the course of this inquiry that Australian research into hearing health is highly regarded internationally. Whilst there are many organisations in Australia conducting world class research in this field, the committee would particularly like to acknowledge the leadership and vision of National Acoustic Laboratories under the direction of Professor Harvey Dillon.

6.39 Having acknowledged that Australia is at the forefront of hearing health research, the committee did learn about gaps in the collective knowledge and understanding that will benefit from further attention. The committee understands that funding is finite, and has directed its recommendations toward two areas. Firstly, toward research that will have greatest benefit for the quality of life of people with hearing loss. Secondly, the committee's recommendations are directed toward research that is likely to benefit Australian productivity.

6.40 In particular the committee is concerned by the potential for 'missing' children who are registered to have been diagnosed with a hearing impairment but are not recorded as having received intervention. Given the unambiguous evidence before the committee about the many benefits of a greater understanding about the clinical and developmental pathways of children diagnosed with hearing loss, development of a national data base should be a high priority for research and development.

6.41 The committee heard a widespread note of concern from many sectors of the community, including concerned individuals, research bodies and government agencies, about the possible effects of personal music players on hearing health. The committee believes that the high visibility of these devices in the community, particularly among young people, has driven this general concern. The committee understands that the research on this issue is not conclusive, and that a long term study will be of great benefit to future safety practices.

6.42 The committee notes that there is a knowledge gap around detailed understanding of the extent of hearing loss caused by ONIHL. To some extent this gap may be attributable to the nature of hearing loss, whereby it is often difficult to

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44 Meniere's Australia, *Submission 156*, p. 4.

attribute a hearing loss to one workplace or event. What seems certain to the committee, however, is that despite good knowledge about safe workplace practices, many workers and employers do not comply with hearing safety regulations, especially in smaller workplaces. The committee has included workplace safety awareness raising in its recommendations at chapter seven. A deeper understanding of the reasons for non-compliance and other risk behaviours will contribute to national policy and workplace practices.

6.43 A greater understanding of the nature of ototoxins, particularly in the workplace, may also contribute to reducing preventable hearing loss.

6.44 The committee noted in chapter four the association between hearing health and some negative health outcomes, including mental health outcomes. This is an area that needs greater understanding if practitioners and policy makers are to respond effectively to improve the quality of life for people with a hearing loss. The committee believes there would be great benefit from further research into the link between hearing loss and mental and physical health outcomes.

6.45 The issue of publicly funded hearing aids sitting unused in the top drawer was discussed in chapter five. Improved understanding of the reasons for low take-up and use of hearing aids could have benefits for both people with hearing impairment (who may be more inclined to use hearing aids), and public funding currently going toward between 60,000 and 80,000 unused hearing aids each year could be targeted more effectively.

6.46 The committee heard that Meniere's disease may affect around 40,000 Australians. The disease is little understood, and is consequently often misdiagnosed or undiagnosed. The committee believes that improved understanding of this disease could benefit a large number of Australians.

## **Recommendations**

### **Recommendation 14**

**6.47 The committee recommends that the national data set and register for neonatal hearing screening, currently under development by the Neonatal Hearing Screening Working Group on behalf of the Australian Health Minister's Advisory Council, be expanded to include a national database which can:**

- (a) **track children through neonatal hearing screening, diagnosis and intervention;**
- (b) **record and report cognitive, linguistic, social and emotional development outcomes of children diagnosed at birth with a hearing loss; and**
- (c) **be expanded in future years to track all children diagnosed with a hearing impairment later in life.**

**Recommendation 15**

**6.48** The committee recommends that the Australian Government fund the National Acoustic Laboratory to undertake longitudinal research into the long-term impacts of recreational noise, particularly exposure to personal music players.

**Recommendation 16**

**6.49** The committee recommends that Australian Governments continue to prioritise and fund research into occupational noise exposure. The focus of research should be informed by the results of the '*Getting heard: effective prevention of hazardous occupational noise*' project, currently being undertaken by Safe Work Australia, and include investigation into the effectiveness of current legislation in limiting occupational noise exposure. Research should continue to develop understanding about the design of workplace equipment, hearing protection, and the long-term effects of acoustic shock and acoustic trauma.

**Recommendation 17**

**6.50** The committee recommends that Australian Governments prioritise and fund research into the reasons for the under use of hearing aids, and develop practicable strategies for hearing health practitioners to help overcome the under use in the community.

**Recommendation 18**

**6.51** The committee recommends that the Department of Health and Ageing work closely with Safe Work Australia to investigate the relationships between ototoxic substances and hearing impairment, and the possible implications for workplace safety practices.

**Recommendation 19**

**6.52** The committee recommends that the Department of Health and Ageing works with Meniere's Australia to identify opportunities for research into the prevalence of the Meniere's disease in Australia, rates of diagnosis, options for treatment and personal management, and the socio-economic impact of the disease, including on the employment and lifestyles of those affected.

## CHAPTER 7

### ADEQUACY OF EDUCATION AND AWARENESS PROGRAMS

The future hearing health of Australians is reliant on positive action by individuals and the community. In the same manner that early awareness is drawn to the future damaging effects of excessive UV-radiation so exposure to potentially damaging noise must be highlighted with the consistent message of “Damage your hearing and...It Won’t Come Back”.

Dr Warwick Williams, *Submission 14*, pp 2-3

#### **Introduction**

7.1 This chapter assesses the adequacy of current hearing health education and awareness campaigns, and explores the need for a nationally coordinated and consistent, public health awareness campaign to prevent and de-stigmatise hearing loss.

#### **Current education and awareness programs**

7.2 The Australian Government's primary funding mechanism for hearing loss prevention activities is through the Hearing Loss and Prevention Program (HLPP) which particularly targets the prevention of hearing loss in young people, Indigenous Australians and those in the workplace. In June 2009, \$1.3 million was allocated to four prevention projects in the first funding round. A second funding round for prevention projects was also scheduled for 2009.<sup>1</sup>

7.3 The Department of Health and Ageing (DOHA) also funds specific hearing health initiatives by the Office for Aboriginal and Torres Strait Islander Health (OATSIH) and the National Immunisation Program.<sup>2</sup>

7.4 The National Acoustic Laboratory (NAL) is currently developing an educational program for Australian school children that can be incorporated into the curricula for years four to five, and that will be adapted for Indigenous children, to raise awareness about hearing protection and risks to hearing health.<sup>3</sup>

7.5 Australian Hearing also promotes awareness of hearing loss and the consequences of hearing loss to the broader community through regular promotional campaigns, participation in Hearing Awareness Week activities, promotion of research that is of interest to the general community, community engagement and

1 Department of Health and Ageing (DOHA), *Submission 54*, p. 57.

2 DOHA, *Submission 54*, p. 9.

3 DOHA, *Submission 54*, p. 57; Australian Hearing, *Submission 38*, p. 18.

awareness activities with culturally and linguistically diverse (CALD) communities, and delivery of community education as part of its Australian Hearing Specialist Program for Indigenous Australians.<sup>4</sup>

7.6 The committee has received a large amount of evidence about education and awareness campaigns run by not-for-profit organisations and volunteers, including Hearing Awareness Week.<sup>5</sup>

7.7 Edith Cowan University is currently developing a science museum demonstration of simulated hearing loss and tinnitus, as well as a strategy for hearing health promotion that will target adolescents.<sup>6</sup>

### **The need for a national public information/awareness campaign**

7.8 Ms Shaunine Quinn of Services for Australian Rural and Remote Allied Health (SARRAH) commented to the committee:

I think Australians have a poor awareness of this very important public health issue...The greatest form of preventative hearing loss is noise induced hearing loss and we currently have no public education.<sup>7</sup>

7.9 As noted in chapter two, hearing loss in adults is commonly caused by the ageing process, and by excessive exposure to occupational or recreational noise, with an estimated 37 per cent of hearing loss believed to be preventable.<sup>8</sup>

7.10 Hearing Awareness Week is held every year in the last week of August, and is promoted strongly. However the success of this campaign is limited by available resources.<sup>9</sup> Audiology Australia argued that current education and hearing awareness programs receive ad hoc funding, rather than long term funding arrangements, and that the development of effective, ongoing hearing health campaigns is therefore not possible.<sup>10</sup> One witness made similar remarks about workplace oriented hearing health education programs. These programs, claimed Dr Warwick Williams, have been run

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4 Australian Hearing, *Submission 38*, p. 18.

5 See for example Better Hearing Australia, *Submission 7*, p. 3; Australian Institute of Occupational Hygienists (AIOH), *Submission 157*, p. 5; SCIC, *Submission 28*, [p. 11]; and DOHA, *Submission 54*, p. 59.

6 DOHA, *Submission 54*, p. 57.

7 Ms Shaunine Quinn, Audiologist Representative on Advisory Committee, Services for Australian Rural and Remote Allied Health (SARRAH), *Committee Hansard*, 12 October 2009, p. 48.

8 Access Economics, 2006, *Listen Hear!: the economic impact and cost of hearing loss in Australia*, p. 17.

9 Audiology Australia, *Submission 74*, p. 6.

10 Audiology Australia, *Submission 74*, pp 6-7.

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only for short periods of time, and were not especially successful at raising awareness about the impacts of excessive noise exposure on hearing loss.<sup>11</sup>

7.11 Despite the large volume of evidence which shows that a large proportion of hearing loss is preventable, and that steps can be taken to mitigate the risks, there is currently no on-going, consolidated Australia-wide hearing health awareness or public education program. Professor Harvey Dillon, Director of NAL, gave evidence that while NAL takes every opportunity to run short-term prevention programs, it does not receive any funding for public awareness campaigns. Rather, funding is directed toward doing 'the research to work out what an education campaign should look like'.<sup>12</sup>

7.12 NAL found in a 2009 literature review that 'there are currently no large scale, on-going general hearing health education or awareness programs in Australia'.<sup>13</sup> The evidence suggested that while there is always a need for ongoing research, there is also a pressing need for the wide-spread dissemination of existing knowledge in an effort to reduce the incidence of preventable hearing loss through awareness-raising.<sup>14</sup>

7.13 The submission from New South Wales (NSW) Health details the recognition by the NSW Government of the need to promote awareness about hearing health and hearing protection. NSW Health is currently developing a Hearing Health Protection Strategy. NSW Health noted, however, the need for all governments to collaborate in health promotion activities to ensure consistent hearing health messages and avoid duplication.<sup>15</sup>

7.14 The committee has received submissions arguing that hearing health should be a national health priority.<sup>16</sup> As discussed in chapters three and four, hearing impairment can have a significant impact on the life of individuals, their friends and families, health services and the economy. The Western Australian (WA) Government commented that benefits in productivity, individual patient wellbeing and in the community more generally should be expected if hearing health prevention and education programs are implemented.<sup>17</sup>

7.15 The evidence strongly suggested the need for a nationally coordinated, adequately funded, public education and awareness campaign (such as a National

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11 Dr Warwick Williams, *Submission 14*, pp 2-3.

12 Professor Harvey Dillon, Director, National Acoustic Laboratory (NAL), *Committee Hansard*, 13 October 2009, p. 51.

13 Dr Warwick Williams, *Submission 14*, pp 2-3.

14 See for example Access Innovation, *Submission 44*, p. 6, and Ms Barbara Nudd, *Submission 128*, [pp 4-5].

15 New South Wales (NSW) Health, *Submission 167*, pp 19-20.

16 Deafness Forum of Australia, *Submission 34*, p. 34.

17 Western Australian (WA) Government, *Submission 154*, p. 2.

Hearing Awareness and Noise Prevention Campaign). This campaign would increase appreciation and understanding among the targeted population groups of risks to hearing health, and contribute to a society that was more understanding and supportive of people with hearing loss. Submissions proposed that such a national campaign should focus on public education programs for preventative care, promotion of good hearing health at home and in the workplace, and target those most at risk of hearing loss. A national campaign should also include further awareness-raising as an essential part of education and training in universities, hospitals, education departments and rehabilitation centres.<sup>18</sup>

7.16 A number of submissions noted the effectiveness of national public health campaigns, such as those for mental health, depression (particularly Beyondblue), skin cancer, and tobacco smoking. The evidence argued that these campaigns have helped bring about changes in community knowledge, attitudes and behaviour.<sup>19</sup>

7.17 Professor Dillon suggested to the committee that the media and the public have been responsive to prevention and education activities that have been undertaken:

We (NAL) get on TV and radio as often as we can, when we have some research finding or even when there is a research finding from overseas, and the press does seem to lap it up.<sup>20</sup>

7.18 Professor Dillon commented on the effects of one study, repeated three times over a six-year period, which showed the level of noise coming out of a person's personal music player had come down over the period of the study: 'It was a significant difference. So the many messages we put out on TV and radio are maybe having a bit of an impact.'<sup>21</sup>

### ***Targeting Occupational noise induced hearing loss (ONIHL)***

7.19 The committee heard that the prevention of ONIHL would be beneficial not only to the individual, but also to the national economy. As discussed in chapter two, ONIHL is major issue for many Australian workers, and may have substantial cost implications for employers and for governments.

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18 Ms Shona Fennell, *Submission 108*, [p. 1]; Quota Club International of Camden, *Submission 73*, [p. 1]; Mr P Lindley, *Submission 106*, p. 3; Attune, *Submission 134*, [p. 4].

19 Self Help for the Hard of Hearing (SHHH) Australia, *Submission 72*, [p. 13]; Ms Yvonne Batterham, *Submission 129*, [p. 8]; NSW Health, *Submission 167*, pp 19-20; Ms Shaunine Quinn, Audiologist Representative on Advisory Committee, SARAH, *Committee Hansard*, 12 October 2009, p. 51.

20 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 13 October 2009, p. 51.

21 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 19 March 2010, p. 16.

7.20 Some submissions remarked that regulations relating to ONIHL have been in place in various forms in Australia since the 1980s.<sup>22</sup> Legislation for minimising occupational noise exposure also exists, and the Office of the Australian Safety and Compensation Council has developed a national standard for the control of ONIHL that has been widely adopted into state regulations. However there are no nationally coordinated campaigns regarding occupational noise induced hearing loss, and the affects of excessive noise exposure in the workplace.<sup>23</sup>

7.21 The Deafness Forum of Australia commented that sufficient funds should be made available to implement a national ONIHL prevention program following completion of the *Getting Heard* project. Such a program would promote best practice in regulation, provision of information regarding noise management to employees and employers, and target workers entering industries with high noise exposure.<sup>24</sup>

### ***Targeting farming populations***

7.22 As noted in chapter two of this report, there is a lack of awareness about the risks of ONIHL among farmers. Farmsafe Australia noted that it is also difficult for farming populations to access screening and support services, as discussed in chapter five, and that these issues are required to be considered for effective prevention.<sup>25</sup>

7.23 Assessments of the Rural Noise Injury Prevention Program and other initiatives targeting farmers have shown considerable success. Farmsafe Australia reported results of the Rural Noise Injury Prevention Program which included an improvement in the mean hearing thresholds in all age groups in 2002-2008 compared to 1994-2001, and an increase in farmers who 'always' use protection when using chainsaws of 17.5 per cent and 10.7 percent when using firearms.<sup>26</sup>

7.24 SARRAH also submitted that in the six months following Farmsafe's voluntary 'Managing Farm Safety' course, participating farmers were eight times more likely than their non-participating counterparts to use hearing protection.<sup>27</sup>

7.25 Submissions therefore argued the need for the development and implementation of an Australia-wide farm noise injury prevention strategy which includes rural specific audiometric assessment and referral services, and promotion of preventative, support and treatment services in communities to provide clear direction on access options for services. The committee particularly notes the possibility that such a strategy could be based on Farmsafe Australia's Rural Noise Injury Prevention

22 Ms Marion Burgess, *Submission 172*, p. 2.

23 SARRAH, *Submission 29*, p. 10; see also Access Economics, 2006, pp 19-20.

24 Deafness Forum of Australia, *Submission 34*, pp 33-37.

25 Farmsafe Australia, *Submission 33*, p. 9.

26 Farmsafe Australia, *Submission 33*, p. 11.

27 SARRAH, *Submission 29*, p. 10.

Program, and Noise Injury Prevention Strategy for the Australian Farming Community.<sup>28</sup>

***Targeting excessive exposure to recreational noise, including the use of personal music players by young people***

7.26 As discussed at chapter two, many submissions received by the committee expressed concern about the damage people, particularly young people, may be doing to their hearing by listening to personal music players at excessive volumes, and attending loud live music venues.

7.27 Daniel Lalor commented that there is a lack of awareness among young people about the risks they may be exposed to when they attend entertainment venues, concerts and festivals where amplified sounds:

...cause people's ears to 'ring' or 'hurt' for days afterwards, but there is very little awareness that such exposure can cause permanent and cumulative damage to hearing. There is also little awareness that preventative measures such as quality sound reduction earplugs can reduce the risk of hearing damage, while not interfering with enjoyment of the music and social exchange...[m]y generation is targeted in social marketing for binge drinking and drink driving, and for the problems/violence associated with this, but many don't know of the risk of hearing loss.<sup>29</sup>

7.28 Concern has been raised regarding the accumulative affects of NIHL, including by Professor Dillon who said that young people need to be aware that noise damage accumulates gradually and is often not noticed until it is too late:

While only a small proportion of older Australians attribute their hearing loss to loud music, it is probable that this statistic will grow when today's MP3-listening, club-going Generation Y'ers reach retirement or probably earlier...Listening to a personal stereo at maximum volume is about the equivalent to listening to a chainsaw...<sup>30</sup>

7.29 Professor Robert Cowan of the HEARING Cooperative Research Centre (CRC) commented to the committee that:

Most people use, for example, iPods or MP3 players. There has been a lot of that in the press, but most people use these for travelling. If you look at the background level of sound in most public transport, it is about 75 decibels. So, to listen to music at a comfortable level above that, we need to go up to 90 to 95 decibels—which, if I employed you, I would have to give you hearing protection for.<sup>31</sup>

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28 Farmsafe Australia, *Submission 33*, pp 8, 10.

29 Mr Daniel Lalor, *Submission 116*, [p. 2].

30 Cited in Hearing Care Industry Association (HCIA), *Submission 62*, pp 14-15.

31 Professor Robert Cowan, HEARING Cooperative Research Centre, *Committee Hansard*, 8 December 2009, p. 1.

7.30 Submissions received by the committee note the lack of regulatory controls on noise exposure for audiences at music and vehicle racing events, patrons in restaurants and bars, and personal music players. One witness also commented on the risks to the hearing of people working in those environments.<sup>32</sup>

7.31 Submitters argued that greater community awareness of hearing health issues should be a top national health and education priority,<sup>33</sup> and that the effects of excessive exposure to noise needs to be more effectively communicated to young people.<sup>34</sup>

7.32 It was suggested to the committee that strategies to target young people could include the use of digital and new media, outdoor advertising (rather than newspapers and on television), targeting universities and schools, and featuring musicians or celebrities promoting hearing protection (such as wearing ear plugs).<sup>35</sup>

7.33 The committee has been directed to the 'Don't lose the music' campaign in the United Kingdom which aims to provide information and awareness to young people about recreational hearing loss.<sup>36</sup> The 'Don't lose the music' campaign aims to raise awareness and focus on the distribution of information and advice to young people regarding hearing health through a website and other forms of media, promotional partnerships, at events, festivals and nightclubs and through the support of musicians and djs.<sup>37</sup>

7.34 One submitter directed the committee to work by the European Commission, which in September 2009 required that:

.... new technical safety standards to be drawn up that would set default settings of players at a safe level and allow consumers to override these only after receiving clear warnings so they know the risks they are taking.<sup>38</sup>

7.35 The evidence suggests a significant need for a targeted campaign to raise awareness among the community, and particularly young people, about the risk of recreational NIHL.

32 Mr Daniel Lalor, *Submission 116*, [p. 2].

33 Access Innovation, *Submission 44*, p. 3.

34 See for example HCIA, *Submission 62*, pp 14-15; HEARING CRC, *Submission 45*, p. 3; Better Hearing Australia Brisbane Inc, *Submission 65* [p. 2]; National Seniors Australia, *Submission 175*, p. 9; and Canberra Deaf Children's Association, *Submission 27*, [p. 3].

35 Mr Daniel Lalor, *Submission 116*, [p. 3].

36 Deafness Forum Australia, *Submission 34*, p. 34.

37 Royal National Institute for Deaf People (RNID), *Don't lose the music: Look after your ears now, enjoy music forever*, [Available: <http://www.dontlosethemusic.com/home/>] (accessed 28 April 2010)

38 Ms Marion Burgess, *Submission 172*, p. 4.

### ***General awareness raising in the community to de-stigmatise hearing loss***

7.36 The committee received submissions arguing that strong stigmatisation of people with hearing impairment has resulted from a lack of understanding about hearing impairment among the general community, and that this has adversely affected people who are hearing impaired.<sup>39</sup>

7.37 Dr Anthony Hogan commented that:

The basic strategies people need to use to cope with hearing loss in social settings are not difficult to learn (e.g. asking people to face you, to speak slowly and clearly, to move away from the light). However, most people with hearing loss feel that it is not legitimate to ask people to make these basic changes for them.<sup>40</sup>

7.38 The committee heard from one witness who, due to a perceived lack of understanding among the community, was tired of:

...being excluded from the world in general, sick of people who work in retail or other businesses and organisations who pretend to understand what I say or ignore me or ignore my simple signed requests to have a pen and paper to write down what I need to say to them and also too many inadequately trained people work in many places and have not served us deaf people fairly...many places that serve clients or customers don't understand deafness and as a result we get dismissed, treated unfairly or like 2nd rate citizens. Like bus and taxi drivers have very little respect for deaf people, retailers are rude and don't listen to us...<sup>41</sup>

7.39 Some submissions therefore proposed that a national campaign to raise awareness about hearing impairment, the communication needs of people who are hearing impaired, and promoting their capabilities in order to improve the social participation of people with hearing impairment.<sup>42</sup> It was proposed that such a campaign be targeted at increasing general understanding within the travel, hospitality and communication industries about the needs of people who are hearing impaired.<sup>43</sup>

### ***Improving the management of hearing impairment and assistance devices***

7.40 The committee has received recommendations that a targeted education campaign should be developed to assist in the management and detection of hearing impairments.

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39 Access Innovation, *Submission 44*, p. 2; Quota Club International of Camden, *Submission 73*, [p. 1].

40 Dr Anthony Hogan, *Submission 111*, pp 5-6.

41 Ms Michelle Snail, *Submission 123*, [p. 1].

42 Dr Anthony Hogan, *Submission 111*, pp 2, 5-6; Farmsafe Australia, *Submission 33*, pp 8, 10.

43 Audiology Australia, *Submission 74*, p. 7.

7.41 Submissions have outlined a need to increase awareness among people with a hearing impairment about technologies to help access assistive technologies, and installed systems such as hearing loops which are often underused and subsequently not appropriately maintained.<sup>44</sup>

7.42 Canberra Deaf Children's Association noted that hearing loss may develop after the newborn health screening, and that public education needs to encourage parents to investigate possible hearing loss at any stage of a child's development.<sup>45</sup>

7.43 Submissions further identify a need to raise awareness about options for the management of congenital hearing loss, hearing impairment in older people, and making people conscious of the need to utilise their hearing aids.<sup>46</sup>

### **Committee comment**

7.44 The committee is persuaded by the evidence that a national campaign to raise the profile of hearing health issues is in the long term interest of all Australians. The campaign could raise awareness of issues among at-risk groups, and promote understanding about the needs of those who have a hearing loss among those who do not. The campaign could also provide information about where hearing impaired people can go for support and advice, a need that has been evident throughout this inquiry.

7.45 This report has noted in several places the significant economic impact of hearing loss on Australia. A national campaign could form a central aspect of a larger strategy to reduce preventable hearing loss in future years, and in turn reduce the economic impact.

7.46 The committee believes that the at-risk groups most likely to benefit from such a campaign would include employers and employees in high-risk industry areas, farm and rural workers, and young people who are exposed to recreational noise at loud levels.

7.47 The committee heard that playing personal music players at excessive volumes may be found to be harmful to the long term hearing of young people, though the evidence is not yet conclusive. Nevertheless the committee believes that a cautious approach is appropriate when the consequences of inaction may be so serious. The committee is impressed by the approach taken by the European Union in this area, and has made a recommendation at chapter two that Australia adopt similar practices.

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44 Dr Jenny Rosen, *Submission 2*, [pp 3-4]; Media Access Australia, *Submission 30*, [p. 3]; Access Innovation, *Submission 44*, p. 6.

45 Canberra Deaf Children's Association, *Submission 27*, [p. 1].

46 Australian DeafBlind Council, *Submission 69*, p. 5; WA Government, *Submission 154*, p. 4; Dr Jenny Rosen, *Submission 2*, [pp 3-4].

## **Recommendations**

### **Recommendation 20**

**7.48** The committee recommends that the Department of Health and Ageing provides funding for Australian Hearing to develop, in close consultation with major hearing health stakeholders, a national hearing health awareness and prevention education campaign. This campaign should have three dimensions. It should:

- (a) target those at highest risk of acquired hearing loss (including employers and employees in high-risk industries, farmers and rural workers, and young people) to improve their knowledge about hearing health and change risky behaviours;
- (b) raise the level of awareness about hearing health issues among the broader Australian population to help de-stigmatise hearing loss; and
- (c) promote access to support services for people who are hearing impaired.

## CHAPTER 8

### **SPECIFIC HEARING HEALTH ISSUES AFFECTING INDIGENOUS COMMUNITIES**

I believe that hearing loss is a missing piece of the puzzle of Indigenous disadvantage, and while it remains a missing piece of the puzzle viable solutions are not easy to come by.

Dr Damien Howard, *Committee Hansard*, 16 February 2010, p. 100.

#### **Introduction**

8.1 The committee has heard evidence from a wide range of individuals and organisations about the particular hearing health issues affecting Indigenous Australians. Of great significance is the fact that a higher proportion of Indigenous Australians experience hearing problems than non-Indigenous Australians across nearly all age groups, in remote, rural and metropolitan areas.<sup>1</sup>

8.2 The causes and consequences of large scale hearing impairment for Indigenous Australians are not yet fully understood. Evidence presented to the committee strongly suggests that its roots lie in poverty and disadvantage, that it impacts on education and employment outcomes, and that it has a strong association with Indigenous engagement with the criminal justice system.

8.3 The large body of evidence before the committee in regard to Indigenous hearing health largely falls under three broad categories, which will form the framework of this chapter:

- (a) the causes and dimensions of high levels of Indigenous hearing impairment;
- (b) the specific implications of hearing impairment for Indigenous education outcomes; and
- (c) engagement with the criminal justice system.

#### **Hearing loss among Indigenous Australians**

8.4 Indigenous Australians experience ear disease and associated hearing loss at up to ten times the rate of non-Indigenous Australians.<sup>2</sup> In 2004-05, 10 per cent of Indigenous children aged zero to 14 years were reported as having ear or hearing

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1 Australian Hearing, *Submission 38*, p. 19.

2 Australian Hearing, *Submission 38*, p. 19.

problems, compared to three per cent of non-Indigenous children.<sup>3</sup> The Department of Health and Ageing (DOHA) noted that: 'It is important to note that the survey is not a measure of the national prevalence of otitis media. In fact there is [no] national data collection for this purpose.'<sup>4</sup>

8.5 The committee heard evidence that these figures may under represent the actual rates of hearing problems in Indigenous children.<sup>5</sup> It has been estimated that some form of hearing loss may affect up to 70 per cent of Indigenous adult people.<sup>6</sup>

8.6 DOHA noted in a question on notice that:

The Menzies School of Health Research recently reported that in a recent survey of 29 communities throughout the Northern Territory, 25% of young Aboriginal children had either chronic suppurative otitis media (CSOM) or acute otitis media with perforation; 31% had bilateral otitis media with effusion; and only 7% of children had bilaterally normal middle ears.<sup>7</sup>

8.7 The major factor behind such high rates of hearing loss amongst Indigenous Australians is a higher prevalence of conductive hearing loss caused by otitis media.

### ***Otitis media***

8.8 Otitis media is the term used to describe an infection in the middle ear. Other terms commonly used include 'glue ear' or 'runny ear', both references to the fluid discharge that can sometimes be a symptom of otitis media.

8.9 Middle ear infections cause a fluid build up in the middle ear. This build up creates pressure on the ear drum, sometimes to the point where it bursts. It is the presence of fluid, and in some cases the resulting perforation of the ear drum, which inhibits the conduct of sound through the middle ear.<sup>8</sup>

### **Types of Otitis Media**

**Acute otitis media (AOM) without perforation:** acute inflammation of the middle ear and eardrum (tympanic membrane), usually with signs or symptoms of infection. AOM is characterised by the presence of fluid behind the eardrum, combined with one or more of the following: bulging eardrum, red eardrum, recent discharge of pus, fever, ear pain, and irritability.

3 Department of Health and Ageing (DOHA), *Submission 54*, p. 62.

4 DOHA, answer to question on notice 19 March 2010 (received 6 May 2010), Question 22.

5 See for example Dr Chris Perry, Clinical Director, Deadly Ears Program, *Committee Hansard*, 7 December 2009, p. 2.

6 DOHA, *Submission 54*, p. 62.

7 DOHA, answer to question on notice 19 March 2010 (received 6 May 2010), Question 22.

8 Phoenix Consulting, *Submission 112*, p. 6.

**Acute otitis media with perforation:** discharge of pus through a perforation (hole) in the eardrum within the previous 6 weeks.

**Recurrent acute otitis media (RAOM):** more than three attacks of AOM within six months, or more than four in 12 months.

**Chronic otitis media:** a persistent inflammation of the middle ear – it can occur with or without perforation, either as chronic suppurative otitis media, or as otitis media with effusion (respectively).

**Chronic suppurative otitis media (CSOM):** recurrent or persistent bacterial infection of the middle ear, with discharge and perforation of the ear drum (CSOM is distinguished from acute perforation with discharge in that the discharge persists). Symptoms include hearing loss – pain is not a feature. CSOM has been identified on the basis of discharge persisting for 6 weeks or more, but an expert panel convened by the World Health Organization defined it recently as discharge for at least 2 weeks.

**Otitis media with effusion (OME):** an inflammation of the middle ear characterised by fluid behind the eardrum, without signs or symptoms of acute otitis media; also sometimes referred to as serous otitis media, secretory otitis media, or (more colloquially) 'glue ear'.

**Dry perforation:** perforation of the eardrum, without any signs of discharge or fluid behind the eardrum.

Source: EarHealthInfoNet, viewed 23 March 2010,  
[http://archive.healthinfonet.ecu.edu.au/html/html\\_community/ear\\_health\\_community/reviews/ear\\_background.htm](http://archive.healthinfonet.ecu.edu.au/html/html_community/ear_health_community/reviews/ear_background.htm)

8.10 Otitis media is a common, short-term childhood ailment amongst Australian children. It is usually self-limiting, and resolved by the time children start school. However for Indigenous children in Australia, Canada and the Americas, as well as Pacific Island and Maori children, otitis media is more persistent.<sup>9</sup> Of these, evidence before the committee stated that Indigenous Australian children have the highest rates:

High levels of middle ear disease and related hearing loss are observed in a number of indigenous populations around the world, however those of indigenous children in remote Australia are consistently higher than elsewhere.<sup>10</sup>

8.11 Another witness testified in a similar vein:

In most populations in developed countries now it is very unusual to get chronic suppurative otitis media unless you have some form of immunodeficiency, yet we see it in about 20 per cent of Aboriginal children [between 6 months and two and a half years of age].<sup>11</sup>

9 Phoenix Consulting, *Submission 112*, p. 6.

10 Associate Professor Linnett Sanchez, School of Medicine, Flinders University, *Submission 31*, p. 3.

11 Professor Peter Morris, Associate Professor Child Health Division, Menzies School of Health Research, *Committee Hansard*, 16 February 2010, p. 57.

8.12 Many submitters noted that the World Health Organisation considers rates of chronic otitis media above four per cent in children to be '...a massive public health problem...which needs urgent attention in targeted populations'.<sup>12</sup>

8.13 Indigenous children in Australia experience an average of 32 weeks of middle ear infections between the ages of two and 20 years, compared to just two weeks for non-Indigenous children.<sup>13</sup> The committee heard a lot of evidence about the very high levels of hearing impairment among children in remote communities:

Another Menzies [School of Health Research] study revealed that in remote communities in the Northern Territory only one per cent of Indigenous kids had normal appearing eardrums at three years of age, which would be indicative of repeated bouts of otitis media and/or long-term otitis media. Although the Indigenous adult data is less certain, it is estimated that up to 60 per cent of Indigenous adults have hearing loss—in many cases due to the effects of otitis media in childhood.<sup>14</sup>

8.14 Evidence presented to the committee suggests that the prevalence of otitis media in Indigenous communities ranges between 10 per cent and 54 per cent.<sup>15</sup> Some witnesses testified that even these rates, based on state and territory surveys, underestimate the prevalence of the problem:

Otitis media affects 90 per cent of Indigenous babies [in the NT].<sup>16</sup>

#### **Case Study: Onset of Otitis Media in Indigenous Children in a Remote Northern Territory Community**

A recent longitudinal study of 41 Aboriginal infants from a northern tropical island community off the coast of the Northern Territory revealed the endemic nature of OM in some communities.

The study examined infants shortly after birth and monthly thereafter.

By 8 weeks of age, 21 of 22 Aboriginal infants had clinical or audiological signs of effusion or acute inflammation, while only three of 10 non-Aboriginal infants had signs of OME and none had signs of AOM.

12 World Health Organisation, *Prevention of hearing impairment from chronic otitis media* (November 1996), p. 29, viewed 20 April 2010,  
[http://www.who.int/pbd/deafness/en/chronic\\_otitis\\_media.pdf](http://www.who.int/pbd/deafness/en/chronic_otitis_media.pdf).

13 Australian Bureau of Statistics (ABS), *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2008*, April 2008, p. 134.

14 Mr Louis Leidwinger, Regional Audiologist, Kimberley Aboriginal Medical Services Council, *Committee Hansard*, 16 February 2010, p. 31.

15 DOHA, *Submission 54*, p. 62.

16 Ms Kathy Currie, Hearing Health Program Leader, Northern Territory Department of Health and Families, *Committee Hansard*, 16 February 2010, p. 2; see also Dr Chris Perry, Clinical Director, Deadly Ears, *Committee Hansard*, 7 December 2009, p. 1.

By 3 months of age, otitis media was present in the entire Aboriginal cohort, with acute inflammation identified in 28 per cent of infants and effusion in 72 per cent.

All Aboriginal infants experienced repeated or persistent infections throughout their first year of life.

Overall, Aboriginal infants were four times more likely than a comparison group of non-Aboriginal infants to develop AOM and three times more likely to develop OME. Over the course of the study, 37 per cent of all Aboriginal infants experienced a perforation at least once, with the mean age of first perforation being 5.6 months. Of those infants who had reached 6 months of age or more by the end of the study, 33 per cent had experienced perforation of the eardrum within their first 6 months. Among those infants who experienced perforation, one-third had perforations that persisted for more than 60 days.

Australian Indigenous HealthInfoNet, Review of ear health and hearing among Indigenous peoples, retrieved 23 March 2010 from <http://www.healthinfonet.ecu.edu.au/other-health-conditions/ear/reviews/our-review>. The study referred to is Boswell JB, Nienhuys TG, Rickards FW, Mathews JD (1993) *'Onset of otitis media in Australian Aboriginal infants in a longitudinal study from birth'* Australian Journal of Otolaryngology; 1: 232-237

### ***The causes of high rates of otitis media among Indigenous Australians***

8.15 Whilst otitis media is common amongst all children, it is the early onset, severity and persistence of infections in Indigenous children that can lead to longer term hearing loss.<sup>17</sup> The reasons for this are complex, and tied to environmental and social factors that may impact on the lives of Indigenous Australians. These factors are usually more pronounced in remote areas, and may include poor housing, overcrowding, limited access to nutritious food and exposure to passive smoking.<sup>18</sup>

8.16 As one audiologist based in a remote area commented:

I am often asked, 'Why is the rate of otitis media and hearing loss so high in Indigenous people?'...speculation that I hear...[is that] there must be some genetic predisposition to otitis media in Indigenous people. But there is no proof of this. The more likely causes of otitis media and hearing loss among Indigenous Australians would be related to the myriad social determinants of health, some of which are housing overcrowding, nutrition, sanitation, education, marginalisation and so on.<sup>19</sup>

8.17 Another witness summed up his view of the causes of otitis media:

17 DOHA, *Submission 54*, p. 62.

18 Australian Indigenous HealthInfoNet, *Review of ear health and hearing among Indigenous peoples*, retrieved 23 March 2010 from <http://www.healthinfonet.ecu.edu.au/other-health-conditions/ear/reviews/our-review>.

19 Mr Louis Leidwinger, *Committee Hansard*, 16 February 2010, p. 32.

...severe otitis media—and by that I mean otitis media associated with perforation of the eardrum—is a complex medical condition caused by poverty and poor living conditions.<sup>20</sup>

8.18 Resolving these underlying, environmental causes of otitis media will be the solution for Indigenous Australians in the long term. Taking the long view, Professor Peter Morris believed that when environmental factors are addressed the situation would improve for remote areas as it has for other parts of the country:

In the poorer areas of, say, Melbourne—the Fitzroy slums and that sort of thing—in the prewar years we saw a very similar pattern of respiratory disease: kids with discharging noses, discharging ears and a chronic wet cough. That does not happen much now in [mainstream] Australia, which gives us the belief that you can see dramatic improvements in remote communities. We believe that what remote community children experience is similar to what we saw in poor communities 100 years ago.<sup>21</sup>

8.19 Other factors can act to compound the impact of such environmental and social influences. These often include inadequate primary health care services, poor access to specialist services, poor compliance with medical interventions and a poor understanding among medical staff of the role of social and environmental conditions on hearing loss.<sup>22</sup>

8.20 One witness commented that clinical staff in remote areas are not always aware of the importance of addressing hearing health:

Ear disease is one of many conditions competing for the attention of health staff and it perhaps lacks the consideration it deserves to manage acute infections aggressively because the association with longer term ear disease and risk of permanent hearing loss is not always made by the health practitioner.<sup>23</sup>

8.21 Another view presented to the committee was that clinical staff in remote communities are all too aware of ear health issues, and in fact may be so overwhelmed by the volume of health issues they face each day that they are unable to respond effectively.<sup>24</sup>

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20 Associate Professor Peter Morris, Deputy Division Leader Child Health Division, Menzies School of Health Research, *Committee Hansard*, 16 February 2010, p. 56.

21 Professor Peter Morris, Menzies School of Health Research, *Committee Hansard*, 16 February 2010, p. 66.

22 Australian Indigenous HealthInfoNet (2004) *Review of ear health and hearing among Indigenous peoples*, retrieved 23 March 2010 from <http://www.healthinfonet.ecu.edu.au/other-health-conditions/ear/reviews/our-review>.

23 Ms Kacy Kohn, East Arnhem Regionalisation Coordinator, Northern Territory Department of Health and Families, *Committee Hansard*, 19 March 2010, p. 24.

24 DOHA, *Submission 54*, p. 63.

8.22 In some cases ear infections in Indigenous children go unreported and untreated, leading to damaged hearing. The committee heard evidence that whereas many children experience pain associated with ear infections (thereby prompting medical examination of their ears), recent studies found this was not always the case among Indigenous children.<sup>25</sup> Whilst the reason for this is not known, there was some speculation that early onset of otitis media may be a factor:

...a normal eardrum is like a very thin sheet of glass and you can see through it, with a lot of nerve fibres running through it. When the eardrum bulges we think that is what causes the pain. Because when you examine these children they have red bulging drums.

Interestingly, we know that in non-Aboriginal children the pain usually only lasts six to 12 hours, and the bulging does not resolve in that time, so it seems that it is the stretching of the nerves that is painful. It is the initial stretching that causes the pain. We think that in Aboriginal children, who have already had the fluid there for a long time, the drum is much thicker and the nerves just cannot be stretched as much.<sup>26</sup>

8.23 The committee also heard that another reason for low reporting of ear disease may be that due to its high prevalence, ear disease among Indigenous Australians has become accepted as a normal and inevitable part of life.<sup>27</sup> Kacy Kohn, a remote hearing health practitioner, remarked to the committee that she had:

...never had an adult Aboriginal client approach me complaining of a hearing deficit, and I wonder if this is because they have normalised their hearing loss or because of a lack an awareness of what assistance may be available to them.<sup>28</sup>

8.24 One witness commented that she had seen no improvement in Indigenous hearing health outcomes in Central Australia:

I have been an audiologist for 15 years and [nearly] all of that time has been spent working with Indigenous ear health. Unfortunately, I have to say that I have not seen any improvements in hearing health or ear health over that time.<sup>29</sup>

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25 Associate Professor Peter Morris, Deputy Division Leader Child Health Division, Menzies School of Health Research, *Committee Hansard*, 16 February 2010, p. 56.

26 Associate Professor Peter Morris, *Committee Hansard*, 16 February 2010, p. 60.

27 See for example Ms Kathy Currie, Hearing Health Program Leader, Northern Territory Department of Health and Families, *Committee Hansard*, 19 March 2010, p. 16.

28 Ms Kacy Kohn, East Arnhem Regionalisation Coordinator, Northern Territory Department of Health and Families, *Committee Hansard*, 19 March 2010, p. 25.

29 Mrs Rebecca Allnutt, *Committee Hansard*, 18 February 2010, p. 9.

## The impact of hearing loss among Indigenous Australians on education

8.25 As noted above Indigenous children, especially those from remote areas, suffer very high rates of ear disease and hearing impairment. The committee heard a considerable amount of evidence which strongly suggests a link between hearing impairment among Indigenous school children and poor educational outcomes. This link has been made in the past,<sup>30</sup> though the problem appears to be still widely in evidence today.

8.26 The Northern Territory Department of Education and Training (NT DET) described the issues of hearing impairment in classrooms as being threefold:

Looking at the implications of hearing impairment for individuals and the community, as well as the large number of children suffering from otitis media and having conductive hearing loss we also have the added issue of the majority of them having English as a second language [ESL] or developing English as a second language at a time when they may not have already developed their first language because of the hearing issues. In addition, a lot of our teachers, if not most, come from interstate and are therefore dealing with the situation of teaching perhaps the first time in a cross-cultural situation. Those three things—the conductive hearing loss, the ESL issue and the cross-cultural issue—impact greatly on the provision of education.<sup>31</sup>

8.27 NT DET's view was shared by another Northern Territory (NT) submitter, who expanded on these difficulties:

In Australia, most Indigenous children are taught in standard Australian English by a non-Indigenous teacher. In this setting certain factors appear to compound the difficulties associated with hearing loss for Indigenous children.

They face culturally unfamiliar and highly verbal teaching styles that require students to learn from listening to teachers and peers in an artificial classroom environment.

Their classrooms are often noisy and seldom have adequate acoustics or appropriate amplification for Indigenous children with hearing loss.<sup>32</sup>

8.28 These problems are not limited to the NT. Evidence was heard about similar conditions in South Australia (SA), Western Australia (WA) and Queensland.<sup>33</sup> The

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30 See in particular Northern Territory Department of Education, *Learning Lessons: an independent review of Indigenous education in the Northern Territory*, (1999), viewed 20 April 2010,  
[http://www.det.nt.gov.au/\\_data/assets/pdf\\_file/0005/7475/learning\\_lessions\\_review.pdf](http://www.det.nt.gov.au/_data/assets/pdf_file/0005/7475/learning_lessions_review.pdf)

31 Ms Denyse Bainbridge, Hearing Team Coordinator, Student Services, NT Department of Education and Training, *Committee Hansard*, 16 February 2010, p. 40.

32 Phoenix Consulting, *Submission 112*, p. 9.

impacts of these factors on the children's engagement with their schooling can include disengagement:

The main problems are language delay, schooling delay and truancy—you just cannot keep up with what the teachers say, so you switch off. And what do you do if you are switched off and you are bored? You start mucking around with the kid next to you. When you muck around with the kid next to you, you get a pattern of behaviour of being a bit of a rebel or you get into trouble. You say, 'I do not want to come to school,' so you have truancy issues.<sup>34</sup>

8.29 One researcher found that once the number of hearing impaired Indigenous children in a classroom went above a certain level, the non-hearing impaired children's education also suffered, as the teacher's time was taken up providing individualised support and managing behaviour.<sup>35</sup>

8.30 Some studies have shown that Indigenous children suffering from chronic ear disease may become disengaged from their learning, sometimes with big consequences:

Learning within the school environment relies on language and communication skills, and children who have experienced hearing loss in early life are likely to struggle with most aspects of schooling. Children who have difficulty performing tasks that require literacy and numeracy skills may become disinterested in learning and attend school less regularly. Consequently, they are less familiar with classroom routines and less able to interpret and participate in classroom activities when they do attend school. Ultimately, hearing loss may lead to school failure, absenteeism, early school dropout, and reduced employment opportunities.<sup>36</sup>

8.31 Early onset hearing loss can have a great impact on a child's ability to acquire language as they grow older. This is a critical issue for children for whom the language of instruction is different from their native language, as was noted in one submission:

Children on the [Anangu Pitjantjatjara Yankunytjatjara] Lands learn English as a second language and this usually commences when they start school. It is overwhelmingly the language of instruction in schools, yet the primary language of use is Pitjantjatjara. Hearing impairment at the levels we record will impact significantly on a child's ability to learn, particularly

33 See for example, respectively, Professor Linnett Sanchez, Flinders University School of Medicine, *Submission 31*; Professor Harvey Coates, *Committee Hansard*, 9 December 2009; and Dr Chris Perry, Clinical Director, Deadly Ears, *Committee Hansard*, 7 December 2009.

34 Dr Chris Perry, Clinical Director, Deadly Ears, *Committee Hansard*, 7 December 2009, p. 5.

35 Phoenix Australia, *Submission 112*, p. 5.

36 Burrow S, Galloway A, Weissofner N, *Review of educational and other approaches to hearing loss among Indigenous people*. Retrieved 24 March 2010 from <http://www.healthinfonet.ecu.edu.au/other-health-conditions/ear/reviews/our-review-education>

where a second language is the means of instruction, with global consequences for the acquisition of basic literacy and numeracy. Hearing impairment thus contributes to the cycle of poverty and disadvantage so common in remote indigenous communities.<sup>37</sup>

8.32 Indigenous children who experience hearing loss at a young age, and who do not have English language skills will also have difficulty accessing and using a sign language, such as Auslan, to communicate. The committee heard from several witnesses that people often develop their own idiosyncratic sign language to communicate with family and community groups, which is of little use outside those groups:

[Hearing impaired Indigenous people from remote communities] learn in their own communities not in the [English] language or Auslan; they have their own sign in that particular community. Once they get out of that community, if they do not speak English and they do not read, they do not know.<sup>38</sup>

8.33 The committee heard evidence that communication difficulty caused by hearing loss can sometimes be misinterpreted as being caused by language or cross-cultural communication issues. One witness, an audiologist, provided an example of the consequences of this confusion in a classroom setting:

What I found in...one school was a young Indigenous girl. They thought English was her second language and that therefore she could not understand English, so her older sister was interpreting for this young girl. When we did the hearing assessment, we found she needed hearing aids. So her problem was not that English was her second language; it was simply that she could not hear.<sup>39</sup>

8.34 NT DET described to the committee how it employs a team of people which works across the NT to help coordinate hearing services to schools, and support teaching and school staff to teach hearing impaired children.<sup>40</sup>

8.35 Nevertheless, the committee heard from an Aboriginal Health Worker who specialises in hearing health who gave evidence that, in her experience, teachers are not trained to understand the implications of hearing loss for individual students.<sup>41</sup>

8.36 In Queensland the Deadly Ears program also emphasises the importance of preparing teachers:

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37 Professor Linnett Sanchez, Flinders University School of Medicine, *Submission 31*, p. 3.

38 Mrs Dorothy Fox, *Committee Hansard*, 16 February 2010, p. 86.

39 Ms Sandra Nelson, *Committee Hansard*, 16 February 2010, p. 80.

40 Ms Denyse Bainbridge, *Committee Hansard*, 16 February 2010, pp 39-41.

41 Ms Sandra Nelson, *Committee Hansard*, 16 February 2010, p. 79.

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You have to teach the teachers who are going out to these communities how to teach a classroom where they are all deaf. You do not talk while you are writing on the blackboard. You have to sit down with individual kids and say, 'Did you take in what I just said to you?'<sup>42</sup>

### ***Good practice in the education of hearing impaired Indigenous children***

8.37 The committee heard from a wide range of individuals and organisations engaged in addressing Indigenous hearing health issues. Witnesses testified to the effectiveness of different approaches.

#### *Sound field systems*

8.38 A sound field system is a low power public address system with a wireless microphone for the teacher to wear. The committee heard evidence that the installation of a sound field system in classrooms where a significant proportion of students are hearing impaired has been shown to provide educational benefits. Teachers who have used the systems report they are helpful because students are able to hear and follow instructions, they behave better, and they are less distracted by outside noises.<sup>43</sup>

8.39 Evidence was also presented that the sound field system is most effective when the classroom has acoustic conditioning features.<sup>44</sup>

8.40 Witnesses noted that whilst children are able to access hearing aids under the Australian Government Hearing Services Program, the program does not support the purchase of sound field systems.<sup>45</sup> This is despite the fact that Indigenous children do not always wear their hearing aids: 'Hearing aids are often strongly disliked and cause acute embarrassment and shame.'<sup>46</sup>

8.41 The committee was unable to identify any systemic, centralised program in any state or territory, for funding, installing and maintaining sound field systems in classrooms.<sup>47</sup>

8.42 It was suggested to the committee that providing funding for sound field systems makes more economic and social sense than providing funding for individual

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42 Dr Chris Perry, Clinical Director, Deadly Ears Program, *Committee Hansard*, 7 December 2009, p. 7.

43 Australian Hearing, *Submission 38*, p. 20.

44 Professor Harvey Dillon, Director, National Acoustic Laboratory (NAL), *Committee Hansard*, 19 March 2010, p. 22.

45 Australian Hearing, *Submission 38*, p. 20.

46 Australian Hearing, *Submission 38*, p. 20.

47 DOHA, answer to question on notice 19 March 2010 (received 3 May 2010).

hearing aids. Sound field systems do not involve the stigma of hearing aids, and they benefit all children in the class. In the words of an Alice Springs-based audiologist:

We know for a fact that if you have got a classroom of children with, say, four hearing aids in there, it would probably be more expensive than having one sound field system that is going to help all of those kids.<sup>48</sup>

8.43 Professor Harvey Coates was unequivocal about installing sound field systems in classrooms:

Starting with every new school that is built, every classroom should have a sound field system using the new infrared system so that you do not have the problems we had in the Kimberley, where the rats would eat the wiring to the speakers and so forth. I think that is the first step—no doubt whatsoever. The second step then is to retrofit those classrooms where there are children identified as at risk.<sup>49</sup>

### *Deadly Ears (Queensland)*

8.44 As has been noted above, part of the reason for continuing high levels of ear disease and hearing loss among Indigenous Australians is the poor access to primary and specialist healthcare services in remote areas. The issues of remote health delivery are summed up in Ear Science Institute Australia's submission:

...a reliance on face-to-face contact with scarce specialists to assess children [in remote areas] and manage ear conditions cannot be sustained. Visits by these specialists to regional centres are infrequent, whilst visits to towns and communities are very rare. Delays in receiving treatment results in complications including permanent hearing loss, cholesteatoma and even risk of death. Pre- and post-surgical assessments are often difficult to arrange as well, and there are significant barriers for children to travel to the regional centres for medical care.<sup>50</sup>

8.45 In addition, the committee heard evidence that if Indigenous people from remote areas have to travel for an hour or more for an operation or medical services, only one in three will make the trip.<sup>51</sup>

8.46 The Queensland Government has responded with the Deadly Ears initiative. Deadly Ears provides a combination of fly-in fly-out Ear, Nose and Throat (ENT) specialists conducting minor surgery on site, health promotion and education

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48 Mrs Rebecca Allnutt, *Committee Hansard*, 18 February 2010, p. 17.

49 Professor Harvey Coates, *Committee Hansard*, 9 December 2010, p. 24.

50 Ear Science Institute Australia, *Submission 66*, p. 2.

51 Dr Chris Perry, Clinical Director, Deadly Ears Program, *Committee Hansard*, 7 December 2009, p. 4.

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programs, and health worker training all underpinned by community engagement and consultation.<sup>52</sup>

8.47 Dr Chris Perry, Clinical Director of Deadly Ears, told the committee that one of the great strengths of the Deadly Ears approach is to engage with community leadership about the type of services they need and the best approach for delivery before sending teams of specialists in to a community.<sup>53</sup>

#### *Ear telehealth*

8.48 The committee also heard evidence that technology is being employed to address remote servicing issues.

8.49 Ear telehealth (sometimes called 'teleaudiology')<sup>54</sup> involves training local health workers to use specialised equipment to take high quality images of the ear drum and ear canal. These images are then assessed remotely by a specialist, who can provide health management advice for the health worker.<sup>55</sup>

8.50 Dr Chris Perry remarked on the advantages of using ear telehealth:

[the local health worker] takes pictures and he sends them back to us. You can see 27 kids in about an hour and a half that way. You cannot see them in remote communities but you can with telehealth.<sup>56</sup>

8.51 Ear telehealth can be more sophisticated than just reviewing images, with advanced diagnostic assessments being undertaken by specialists in Queensland remotely via computer.<sup>57</sup> In his evidence to the committee, Professor Harvey Dillon of NAL was supportive of the ear telehealth approach,<sup>58</sup> as was Professor Harvey Coates in WA.<sup>59</sup>

8.52 The Ear Science Institute Australia has estimated that the economic benefits of a large scale rollout of ear telehealth to remote Australia could be around one

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52 Allied Health, Clinical Support and Rehabilitation Services: Deadly Ears State-wide Aboriginal and Torres Strait Islander Ear Health Program, viewed 29 March 2010, [http://www.health.qld.gov.au/rch/professionals/ah\\_ats\\_earhealth.asp](http://www.health.qld.gov.au/rch/professionals/ah_ats_earhealth.asp)

53 Dr Chris Perry, Clinical Director Deadly Ears Program, *Committee Hansard*, 7 December 2009, pp 6, 9.

54 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 19 March 2010, p. 11.

55 Ear Science Institute Australia, *Submission 66*, pp 2-3.

56 Dr Chris Perry, Clinical Director, Deadly Ears Program, *Committee Hansard*, 7 December 2009, p. 8.

57 Professor Harvey Coates, *Committee Hansard*, 9 December 2010, p. 14.

58 Professor Harvey Dillon, Director, NAL, *Committee Hansard*, 19 March 2010, p. 11.

59 Professor Harvey Coates, *Committee Hansard*, 9 December 2010, p. 15.

billion dollars over 25 years.<sup>60</sup> However it was pointed out to the committee that under existing arrangements, ENT specialists are unable to access funding through Medicare for telehealth consultations.<sup>61</sup>

### *Taking an holistic approach to hearing health*

8.53 The committee heard from a range of witnesses that treating ear health in isolation from the other realities of people's lives may inhibit the effectiveness of treatments. It was suggested that Indigenous people's cultural, social, environmental, and economic circumstances should be part of the solution. In the words of one witness:

You cannot necessarily target hearing health or optical health or oral health as in the [Northern Territory Emergency Response] because they have the same underlying causes anyway [i.e. poverty and overcrowding and much more general health issues]. These programs really need to involve and empower Indigenous people to long-term strategies.<sup>62</sup>

8.54 The evidence suggests that a large part of a successful solution lies in educating and engaging families:

In dealing with and treating otitis media and hearing damage, across the board everybody has said that working with and engaging directly with the families of kids is the approach that will make a difference in the long term. It means educating the carers and the parents, the people who are around those kids, the young mums.<sup>63</sup>

8.55 A number of witnesses referred the committee to the work of the Aboriginal Resource and Development Services (ARDS), an organisation based in Arnhem Land which has worked for many years with Yolngu people of the area on health issues. According to one witness:

The interesting thing about [about ARDS] is because they are working only in [Indigenous] language they have to restrict themselves to the words that are already known by the community and to the concepts that are already known by the community. They find out what is known about whatever the health topic is and then they build onto that in language, using concepts that are already understood. So if they are trying to teach about bacteria, they look around and see what is similar in concept and build onto that. In that way, community members get a greater understanding about what is

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60 Ear Science Institute Australia, *Submission 66*, p. 3.

61 Ear Science Institute Australia, *Submission 66*, p. 3; see also Professor Harvey Dillon, Director of Research, Australian Hearing, *Committee Hansard*, 19 March 2010, p. 12.

62 Mr Derek Moule, *Committee Hansard*, 16 February 2010, p. 22.

63 Mr Tristan Ray, Manager, Central Australian Youth Link Up Service, *Committee Hansard*, 18 February 2010, p. 1.

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underpinning all these health problems, and with that knowledge are better able to manage their own environment and to manage their own health.<sup>64</sup>

8.56 Ms Ann Jacobs provided evidence about the effectiveness of the primary healthcare model in addressing Indigenous hearing health. She explained that:

The primary healthcare model has a community focus. It looks at prevention, identification, control of the transmission of the disease and management from prenatal to adults. It has got a community focus and it recognises that you do not have individual children with conductive children; you have families and communities—because it is so infectious.<sup>65</sup>

8.57 The committee heard evidence from Ms Jacobs about her experience of harnessing strong Indigenous family ties to make a difference in addressing children's hearing health:

One man I worked with recently was a single parent who had recently been released from jail. He was illiterate and he had three children. All had middle ear disease, and unfortunately the middle ear disease of the middle [child] was so bad that he was mute; he could not speak at all. He was five. I explained the whole thing to [the father], and the next week he brought me five additional children. He collected up all the little kids and brought them all in. He was a wonderful dad. Each week I would teach him something new and each week he would bring these kids back...So there is a level of community and family that exists within Aboriginal families that we can really use, and we need to build capacity and knowledge. To me, that is the way forward...<sup>66</sup>

#### *The Goldfields Ear Health Conference*

8.58 The committee heard evidence that the Goldfields Ear Health Conference, held biennially in Kalgoorlie since 2005, is the 'only Australian conference that brings together leaders in the field of [ear health] research and service provision from both health and education [perspectives].'<sup>67</sup> The conference is focused on improving ear health for Indigenous Australians in remote areas.

8.59 Australian Hearing gave evidence about the value of the conference, especially for people who work in isolated communities:

I think it does play a valuable role. I think any opportunity to get together and talk about strategies and experiences is valuable. Outreach audiologists,

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64 Ms Samantha Harkus, Manager Indigenous Services, Australian Hearing, *Committee Hansard*, 19 March 2010, p 21; for further information visit the ARDS website at <http://www.ards.com.au/>

65 Ms Ann Jacobs, *Committee Hansard*, 9 December 2009, p. 55.

66 Ms Ann Jacobs, *Committee Hansard*, 9 December 2009, p. 64.

67 Phoenix Consulting, *Submission 112*, p. 55.

whether they work for Australian Hearing or for NT Hearing, often work in isolation. It is good to bring them together.<sup>68</sup>

8.60 One Alice Springs-based audiologist was enthusiastic about the conference, and noted that the Ear Health Infonet is an outcome of that conference:

For us it is all about having hearing people together to talk about these issues and to find out what others are doing and to let them know what we are doing, what has worked for us and what has not. The one great thing that has come out of it is the ear Infonet.<sup>69</sup>

8.61 Whilst many witnesses similarly testified about the great value of this conference to educators and ear health professionals, its future is in doubt as it is run by volunteers and has no secure funding. In the opinion of Dr Damian Howard 'unless it gets national support I think it is going to fall over.'<sup>70</sup>

#### *Ear Health Infonet*

8.62 The Ear Health Infonet is a web-based resource which:

...aims to increase evidence-based prevention and management of Indigenous ear health and hearing problems by improving access to relevant evidence-based information and educational resources and increasing national collaboration and communication in this area.<sup>71</sup>

8.63 As with the Goldfields Ear Health Conference, the Ear Health Infonet links practitioners and researchers with quality, evidence-based information and resources. Menzies School of Health Research, a key partner of Ear Health Infonet, testified that whilst the site has been around for over three years it is based on a need that has existed longer than that.<sup>72</sup>

8.64 According to Miss Felicity Ward of Menzies School of Health Research:

[Ear Health Infonet] was about providing research evidence online for all people working in the area. We have a yarning space as well, which is a forum for people working in the area. So ENTs, speech pathologists, audiologists, teachers and everyone can communicate across the country about issues that come up working in the area of ear health and hearing. It is guided by a national reference group that has Judith Boswell, Harvey Coates and a few other people. They guide the process of how it works, what it looks like and the way they would like to see it. They inform us of

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68 Ms Sam Harkus, Manager Indigenous Services, Australian Hearing, *Committee Hansard*, 19 March 2010, p. 23.

69 Mrs Rebecca Allnutt, *Committee Hansard*, 18 February 2010, p. 16.

70 Dr Damien Howard, *Committee Hansard*, 16 February 2010, p. 112.

71 Menzies School of Health Research, viewed 7 April 2010, <http://menzies.edu.au/research/child-health/ear-and-oral-health/-australian-indigenous-earinfonet-ear-health-and-hearing-w>

72 Miss Felicity Ward, Menzies School of Health, *Committee Hansard*, 16 February 2010, p. 68.

different ways that we can make it more accessible to people out there at the level of working in the communities, working in ear health and hearing. I think there are about 360 members on the yarning board.<sup>73</sup>

8.65 One witness, an audiologist based in Alice Springs, commented on the value of Ear Health Infonet to her work:

It is absolutely fantastic. I have that on my desktop because it is just such a valuable resource. I am constantly going there and making sure that people are aware of it because it is a great thing. In this day and age, realistically, it is very hard logically for us all to get together so when we have that kind of resource available it is really important that we use it and that it is supported by the government, both Territory and federal.<sup>74</sup>

### *Earbus*

8.66 Telethon Speech and Hearing run the Earbus initiative in WA. Earbuses are mobile children's ear clinics which provide hearing assessment and management for school children in Perth and South-West WA. The Earbus model not only provides hearing assessments, it also refers children to a GP and, if necessary, an ENT specialist for follow up.<sup>75</sup>

8.67 Telethon Speech and Hearing noted in their submission the major success factors for the Earbus project. These factors may be of broader application for all service providers working in Indigenous hearing health, and therefore are reproduced in the box below.

#### **Ten 'indispensable elements' of a WA hearing services delivery model**

- Middle ear screening via Earbus using a range of instruments – otoscopy, tympanometry, Pure tone audiometry screening, otoacoustic emissions and acoustic refelctometry.
- School or district-based Aboriginal Liaison Officers to work with Aboriginal families to elicit their cooperation, support and consent for the screening program.
- Professional Development for school staff to increase their understanding of the impact and causes of middle ear disease; support for staff to develop intervention approaches.
- Community Development (Education and Awareness) for families, health workers and allied health professionals to engage them as informed supporters and participants.

73 Miss Felicity Ward, Menzies School of Health Research, *Committee Hansard*, 16 February 2010, p. 68

74 Mrs Rebecca Allnut, *Committee Hansard*, 18 February 2010, p. 16.

75 Telethon Speech and Hearing, *Submission 11*, [pp 3-5].

- Infrastructure investment and support advice for communities that can invest in value adding such as soundfield amplification, swimming pools, personal FM systems etc.
- GP services delivered directly into the schools wherever possible based on close liaison and collaboration with existing Aboriginal Medical Services and GP divisions.
- ENT liaison and local hospital support to expedite surgery for children in urgent need.
- School nurses as key support personnel in administering medication, following up GP treatment regimes and liaising with families.
- Follow up audiology services where required using community resources (eg UWA Masters of Clinical Audiology students), Australian Hearing and local area health services.
- Data capture for research purposes to evaluate the success of the program in reducing the incidence of middle ear disease in Aboriginal children and of primary school age.

Telethon Speech and Hearing, Submission 11, [p. 6].

### *Swimming Pools*

8.68 A number of witnesses expressed the belief that swimming pools in remote communities are likely to reduce the incidence of ear disease among children.<sup>76</sup> Specifically, people argued that a regular swim in a properly maintained pool helps to keep the ear canal and outer ear clean, and may even wash away biofilm and prevent damaging infections taking hold.<sup>77</sup>

8.69 The committee notes the release of a recent report which tested, among other things, the effects of swimming pools in remote Indigenous communities on ear health,<sup>78</sup> and found that:

...swimming pools have not had an impact on the ear health at this stage. However the initiation of a further study funded through the Department [of

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76 See for example: Dr Chris Perry, Clinical Director, Deadly Ears, *Committee Hansard*, 7 December 2009, p. 10; Professor Harvey Coates, *Committee Hansard*, 9 December 2010, p. 18; Telethon Speech and Hearing, *Submission 11*, [p. 7].

77 See Ms Kathy Currie, Hearing Health Program Leader, Northern Territory Department of Health and Families, *Committee Hansard*, 19 March 2010, p. 28.

78 Healthcare Planning and Evaluation, *Evaluation of the sustainability and benefits of swimming pools in the Anangu Pitjantjatjara Yankunytjatjara Lands (APY Lands) in South Australia*, July 2009, viewed 1 April 2010, [http://www.health.gov.au/internet/main/publishing.nsf/Content/AE9490AB62641D4BCA2576CC00205A5A/\\$File/hpe\\_swimmingper cent20pools\\_SA.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/AE9490AB62641D4BCA2576CC00205A5A/$File/hpe_swimmingper cent20pools_SA.pdf)

Health and Ageing] that commenced in March 2009 provides an opportunity to monitor changes over the longer term.<sup>79</sup>

## **Indigenous hearing health and the criminal justice system**

### ***The link between hearing impairment and criminal activity***

8.70 It has been noted at chapter four of this report that the committee heard evidence of a link between early onset hearing impairment and increased engagement with the criminal justice system. The committee further heard that there are several factors which exacerbate this connection as it applies to Indigenous people, particularly Indigenous people from remote areas who do not speak English as their first language.

8.71 Evidence was heard that the factor between linking impairment with criminal activity is poor educational outcomes. In its submission, the Northern Australian Aboriginal Justice Association (NAAJA) cited research which shows that Indigenous people who have completed school at Year Nine level or below are twice as likely to be charged with an offence, and three times more likely to be imprisoned than Indigenous people who have completed Year 12.<sup>80</sup>

8.72 Language development is often impaired among people with a hearing impairment, especially if hearing impairment is early onset and undiagnosed. One witness testified that there is evidence showing a correlation between language development and criminal activity:

It is...interesting that the *Early years study 2* report has shown that language skills at six, 18 and 24 months strongly correlate with criminal charges in adolescence.<sup>81</sup>

8.73 Other witnesses emphasise that there is a demonstrable link between hearing impairment and criminal activity:

We believe that hearing impairment is a significant contributor to the causal pathway that represents a failure basically of education and health to deal with those issues and they get picked up by the justice system.<sup>82</sup>

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79 Healthcare Planning and Evaluation, *Evaluation of the sustainability and benefits of swimming pools in the Anangu Pitjantjatjara Yankunytjatjara Lands (APY Lands) in South Australia*, July 2009, p.1., viewed 1 April 2010,  
[http://www.health.gov.au/internet/main/publishing.nsf/Content/AE9490AB62641D4BCA2576CC00205A5A/\\$File/hpe\\_swimmingper cent20pools\\_SA.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/AE9490AB62641D4BCA2576CC00205A5A/$File/hpe_swimmingper cent20pools_SA.pdf)

80 Northern Australian Aboriginal Justice Agency (NAAJA), *Submission 170*, p. 3.

81 Ms Ann Jacobs, *Committee Hansard*, 9 December 2009, p. 54.

82 Mr Paul Higginbotham, CEO, Telethon Speech and Hearing, *Committee Hansard*, 9 December 2009, p. 39.

Hearing loss may not *cause* criminal activity, but when considering the stigmatising effects of hearing impairment on self-concept, educational attainment and social skills, there is a causal link to criminal activity.<sup>83</sup>

### ***The extent of hearing impairment among Indigenous prisoners***

8.74 The committee heard evidence that there have been no large scale, formal studies undertaken into the question of prevalence of hearing impairment among Indigenous prisoners. Dr Damian Howard, who has been actively engaged in this issue, gave evidence to the committee that:

There have never been any formal studies into [the extent of hearing loss among Indigenous people engaged with the justice system], despite the attempts on numerous occasions to get some going, particularly by me and a number of other people. When trying to attempt to get these studies going, the response has generally been people from the criminal justice system saying that it is a health issue and people from the health system saying that it is a criminal justice issue...when a problem is everyone's issue, it very easily becomes no-one's issue.<sup>84</sup>

8.75 The committee heard preliminary results from one study which found high levels of hearing loss and unhealed ear perforations among female Indigenous inmates. The preliminary results of that study indicate that 46 per cent of the women had a significant hearing loss, and that of those failing a hearing screening, 30 per cent had perforations of one or both eardrums.<sup>85</sup>

8.76 Notwithstanding the lack of hard data, anecdotal evidence from the NT seems to indicate that in that jurisdiction at least the prevalence may be very high indeed:

Limited research work suggests that 85 to 90% of Indigenous prisoners have hearing loss.<sup>86</sup>

We know for a fact that out at the jail here [i.e. in Alice Springs] out of the 90 per cent of the Indigenous people who would be out there, 99 per cent of those would have a hearing loss. It is quite scary.<sup>87</sup>

8.77 Researchers in other jurisdictions that have large populations of remote Indigenous people have also given evidence about the high prevalence of hearing impairment among Indigenous prisoners, and in one case their attempts to quantify its extent.<sup>88</sup>

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83 NAAJA, *Submission 170*, p. 4.

84 Dr Damien Howard, *Committee Hansard*, 16 February 2010, p. 101.

85 Telethon Speech and Hearing, *Submission 11*, additional information provided 7 May 2010.

86 Dr Damien Howard, *Committee Hansard*, 16 February 2010, p. 100.

87 Mrs Rebecca Allnutt, *Committee Hansard*, 18 February 2010, p. 12.

88 See for example Mr Paul Higginbotham, CEO, Telethon Speech and Hearing, *Committee Hansard*, 9 December 2009, p. 49.

8.78 Dr Stuart Miller, President of the Australian Society of Otolaryngology Head and Neck Surgeons (ASOHNS), offered his opinion that the extent of hearing impairment amongst Indigenous prisoners is likely to be the same as it is for Indigenous people who are not in prison.<sup>89</sup>

### ***Communication difficulties between police and Indigenous people***

8.79 The committee heard that:

...hearing difficulties often lead to difficulties similar to those that arise from cultural and linguistic barriers. This means that issues of understanding and miscommunication are attributed to linguistic difficulties, while the hearing impairments, which may really cause this, are often unrecognised.<sup>90</sup>

8.80 Dr Damien Howard explained further in Phoenix Consulting's submission:

Difficulties with inter-cultural communication processes, the perceptions and responses of non-Indigenous staff and background noise levels, in combination with Conductive Hearing Loss, can and do lead to significant communication problems.

Linguistic and cultural differences are frequently presumed to be the reason why an Indigenous witness may misinterpret a question, give an inexplicable answer, remain silent in response to a question or ask for a question to be repeated. The potential contribution of hearing loss to a break down of communication is generally not considered. However, it is probable that the distinctive demeanour of many Indigenous people in court is related to their hearing loss. Where this is the case there is a very real danger that the courtroom demeanour of Indigenous people (not answering questions, avoiding eye contact, turning away from people who try to communicate with them) may be being interpreted as indicative of guilt, defiance or contempt.<sup>91</sup>

8.81 One witness testified about the potential consequences of poor communication caused by hearing loss:

One audiologist talked to me about dealing with a client who had recently been convicted of first-degree murder and had been through the whole criminal justice process. That had happened and then she was able to diagnose him as clinically deaf. He had been through the whole process saying, ‘Good’ and ‘Yes’—those were his two words—and that process had not picked him up. Given the very high rates of hearing loss, you have to wonder about people’s participation in the criminal justice system as being

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89 Dr Stuart Miller, President of the Australian Society of Otolaryngology Head and Neck Surgery (ASOHNS), *Committee Hansard*, 9 December 2010, p. 12.

90 NAAJA, *Submission 170*, p. 5.

91 Phoenix Consulting, *Submission 112*, pp 26-27.

fair and just if in cases like that people simply are not hearing or understanding what is going on.<sup>92</sup>

8.82 The committee notes that there is legal precedent which suggests that undiagnosed hearing impairment in a convicted person could, in some circumstances, render that conviction unsafe on the grounds that it is an essential principle of the criminal law that accused persons not only be present at trial, but that they be able to understand what is going on and make decisions about the conduct of proceedings.<sup>93</sup>

8.83 Evidence was also presented to the committee that prison life for people with a hearing impairment, including Indigenous people, can be harder than it is for people with normal hearing ability. NAAJA noted in their submission that:

It is unquestionably the case that the experience of jail is significantly more severe on people with hearing impairments. Prisons operate with a heavy reliance on prisoners hearing commands, and responding as required. This includes the use of bells and sirens and following oral instructions.<sup>94</sup>

8.84 One witness supported NAAJA's view when he reported on his conversations with hearing impaired prisoners at Alice Springs Correctional Centre:

Several of the guys...told me that, because of their hearing loss, they often did not understand what guards wanted them to do, so they were in constant strife with the guards in the prison. We had a program to provide hearing aids to these guys, because they did not qualify for hearing aids from any other sources. Thank goodness, the Office of Hearing Services would donate returned hearing aids. We used those, and it made quite a difference in a lot of individual guys' lives now that they could hear and understand things. Their perception by guards and their perceived behaviour improved

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92 Mr Tristan Ray, Manager, Central Australian Youth Link Up Service, Tanganyere Council, *Committee Hansard*, 18 February 2010, pp 1-2.

93 In *Ebatarinja v Deland* [1998] HCA 62; (1998) 194 CLR 444 (<http://www.austlii.edu.au/au/cases/cth/HCA/1998/62.html>) the High Court accepted the reasoning of the Judicial Committee of the Privy Council in the case of *Kunnath v The State* [1993] 4 All ER 30 that it is a necessary condition of a fair trial that an accused be not only present at trial, but that they "be able to understand the proceedings and decide what witnesses ...to call, whether or not to give evidence and, if so, upon what matters relevant to the case against him." Physical presence of the accused is insufficient. The case of *Ebatiarinja* concerned a mute, deaf and illiterate Indigenous man charged with murder who was unable to understand the committal proceedings or even the fact that he had been charged. Although it concerns the committal process, the Court's reasons are directed to criminal trial procedures generally. It is arguable from this case that a defendant's previously undiagnosed and untreated hearing loss or impairment may, in some circumstances, constitute a failure to comply with what the Court describes as an "essential principle of the criminal law". If that failure constitutes a "substantial miscarriage of justice", it could be grounds for an appeal.

94 NAAJA, *Submission 170*, p. 6.

because they knew what was expected of them. So it all has to do with proper and clear communications.<sup>95</sup>

8.85 Ms Amarjit Anand, NT Government Principal Audiologist, testified that arrangements have been in place in the past to conduct hearing assessments and provide follow up services for prisoners in the NT, though she was uncertain as to the present arrangements. Ms Anand also noted that the Northern Territory Correctional Services had requested professional development for their officers to help them work more effectively with hearing impaired prisoners.<sup>96</sup>

### ***Assistance and support***

8.86 The committee heard from several witnesses that the use of technologies and assistive devices can be of great assistance in police station and courtroom environments. NAAJA submitted that whilst currently used infrequently:

...amplifiers have an immediate positive impact on both the ability of Aboriginal defendants to communicate and the demeanour of clients.<sup>97</sup>

8.87 Phoenix Consulting provided a case study to the committee which highlights the benefits of assistive technologies for one Indigenous man:

#### **Case study: Barry, a rehabilitation success story**

Barry was in his forties and suffered from persistent middle ear disease in both ears which caused severe hearing loss which continued to as he got older. He also had a long history of involvement with the criminal justice system, had been to jail a number of times, and had a very negative relationship with police.

Police who had pulled Barry over in his car would tend to raise their voices when it was clear Barry had trouble understanding them. However, this often provoked anger and aggression from Barry who felt they were shouting at him. On a number of occasions this resulted in his arrest.

Barry was often excluded from family conversations, sitting with family members but rarely included in the discussion. He had found it too stressful to join in [Community Development Employment Program] ('work for the dole') activities, because of the communication difficulties he experienced in working in teams.

Barry had been trying to get a hearing-aid for 20 years without success. When his hearing loss was first identified as an adult, he was too young to qualify for a free hearing-aid and too poor to afford to buy one. When Barry finally became eligible to receive a free hearing-aid, the complex bureaucratic processes involved were a major obstacle, because it required literacy and phone communication skills that Barry did not have. Barry was given a personal

95 Mr Louis Leidwinger, *Committee Hansard*, 16 February 2010, p. 37.

96 Ms Amarjit Anand, Principal Audiologist, Northern Territory Hearing, *Committee Hansard*, 16 February 2010, p. 18.

97 NAAJA, *Submission 170*, p. 7.

amplification device while he waited hopefully for a hearing-aid, which a year later had yet to happen.

After Barry had used the relatively inexpensive hand held or ‘pocket talker’ amplification device for a month, he and his wife described the changes that the device had made in Barry’s life.

He was generally much less stressed.

He was able to participate in family discussions, and was now much more engaged in family life.

He was able to establish a more positive relationship with local police, as he could now have a conversation with them.

He was able to participate more easily in culturally important hunting and fishing activities because he could hear people when they called out in the bush.

When Barry was finally fitted with hearing-aids he was a changed man. He found the hearing aid even better than the portable amplification device. He was successful in gaining a supervisory position in his workplace. He described how both he and his family experienced much less stress and frustration now he had a hearing-aid.

Source: Phoenix Consulting, *Submission 112*, pp 28-29.

8.88 NAAJA noted the absence of hearing loops in police stations and courtrooms. Having argued that there are links between hearing loss and criminal activity, they conclude that assistive technologies such as hearing loops in these places should be ‘compulsory’.<sup>98</sup>

8.89 The committee also heard evidence about the use of legal interpreters for people with a hearing impairment. The use of interpreters is complicated by three factors. Firstly, as has been noted elsewhere, Indigenous people from remote areas, especially among those who suffered hearing loss at a young age, often have low levels of English language and literacy skills. This limits the capacity of many deaf interpreters to assist. Secondly, even if deaf interpreters can be found with Indigenous language skills, they would need to understand the particular language of the person they have been called to assist, which is not always the case. And thirdly there are very few interpreters available in the NT,<sup>99</sup> arguably the jurisdiction with the greatest need.

8.90 The case study in the box below was provided to the committee by NAAJA. This case illustrates the complexity of the challenges facing hearing impaired Indigenous people engaged with the criminal justice system.

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98 NAAJA, *Submission 170*, p. 7.

99 Ms Elizabeth Temple, NAAJA, *Committee Hansard*, 16 February 2010, pp 94-96.

## Case Study – N

N is charged with several serious driving offences, including driving under suspension. He is deaf, and does not know sign language. N has significant difficulties explaining himself and will often nod during conversations, which leads to people to believe he is replying 'yes', when, in fact, he does not understand. He has a very limited and idiosyncratic form of sign language. Every now and then he does something that resembles signing.

N is not able to communicate with his lawyer. An AUSLAN interpreter has been utilised, but because N cannot sign, he is not able to convey instructions to his lawyer of any complexity. N's lawyer sought to arrange a Warlpiri finger talker through the Aboriginal Interpreter Service, but the interpreter concerned was not willing or able to come to court. It was also not known if N would even be able to communicate using Warlpiri finger talking.

The witness statements disclosed to defence included a statement from a police officer describing how she came upon a group of men in a park drinking. She ran a check on N, to discover he had warrants for his arrest, at which time she arrested him. Her statement reads: "It is my belief that he understood as he looked at me and became quite distressed. I asked (N) verbally if he understood and he nodded and turned his head away from me while raising his arms in the air."

N is currently on bail, but has spent significant periods on remand at Darwin Correctional Centre. His charges are yet to be finally determined, and an application for a stay of proceedings is pending. N is effectively trapped in the criminal justice system. He cannot plead guilty or not guilty because he is not able to communicate with his lawyer and provide instructions.

He had previously been granted bail, but after failing to attend court as required, his bail was revoked. Significantly, his inability to convey information (or to understand what his lawyer was trying to tell him) in relation to his charges has also been highly problematic in relation to bail. For example, when he was explaining to his lawyer with the assistance of the AUSLAN interpreter where he was to reside, both the interpreter and lawyer understood N to be referring to a particular community. It was only when the interpreter was driving N home, with N giving directions on how to get there, that it was discovered that he was actually referring to a different community altogether.

It has arguably been the case that N was not able to comply with his bail because he did not understand what his bail conditions were. N has subsequently spent a lengthy period of time remanded in custody as a result.

Whilst in custody, N is not provided appropriate services or assistance. He relies heavily on relatives who are also in custody. He is unable to hear bells, officers' directions and other essential sounds in the prison context. At one point, it was alleged that N was suicidal and he was moved to a psychiatric facility as a result. N denied the allegation but was unable to properly explain himself to resist his transfer.

Case study included in NAAJA, *Submission 170*, p. 8.

8.91 The committee notes that the 1991 report of the Royal Commission into Aboriginal Deaths in Custody did not identify or remark on any relationship between ear health, hearing impairment and Indigenous Australians' engagement with the

criminal justice system. The very few notes pertaining to ear health were made in the context of overall Indigenous health programs, and not in relation to criminal justice.<sup>100</sup> The report did comment on communication difficulties between medical professionals and Indigenous Australians from non-English speaking backgrounds. These difficulties were attributed by the report to language and inter-cultural issues.<sup>101</sup>

### **Committee comment**

8.92 The committee has considered a large amount of evidence on the particular hearing health issues facing Indigenous Australians, and is alarmed at the ongoing disparities between Indigenous and non-Indigenous hearing health in Australia. The committee recognises that the particular hearing issues affecting Indigenous Australians are in addition to those facing all Australians, and that the combined weight for Indigenous Australians is great.

8.93 The committee would like to take this opportunity to acknowledge the commitment, dedication and passion of the many people and organisations working with Indigenous communities to address hearing health problems. They exhibit great resilience and energy in the face of a seemingly intractable problem, and continue to seek innovative solutions and set in place evidence-based good practice.

8.94 The committee understands that Indigenous hearing and health outcomes are intrinsically bound up in a complex array of social, economic, cultural and historical factors. No single clinical, pharmaceutical or technological intervention can provide a 'magic bullet' solution for otitis media and its effect on people's lives. This is not to say that interventions should not be targeted and specific, but rather that they should be undertaken holistically, within the social and medical realities of the day to day lives of Indigenous Australians. It is for this reason the committee's recommendations emphasise the importance of cross-agency and inter-jurisdictional efforts, and of putting research and information in the public sphere wherever possible.

8.95 The committee is deeply concerned about the impact of hearing impairment on Indigenous education outcomes, and is persuaded by the weight of evidence that its impact may be very great indeed, particularly for children from remote areas where English is a second language.

8.96 The committee has formed the view that there are practicable, evidence-based approaches being implemented in some places, and that there is a need for a single national body to facilitate the sharing of good practice in education of hearing impaired Indigenous children, and develop long term planning that will meet the future needs of children and educators.

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100 See for example Report of the Royal Commission into Aboriginal Deaths in Custody (1991), Vol.4, 31.2.34 (Northern Territory); and 31.2.26 (Western Australia); and 31.2.24 (Queensland), viewed 22 April 2010, <http://www.austlii.edu.au/au/other/IndigLRes/rciadic/>

101 Report of the Royal Commission into Aboriginal Deaths in Custody (1991), Vol.4, 31.3.20-1.3.24, viewed 22 April 2010, <http://www.austlii.edu.au/au/other/IndigLRes/rciadic/>

8.97 The committee was persuaded by the evidence that there are demonstrable educational benefits for all children to installing sound field systems and acoustic conditioning, particularly in classrooms where there is a significant number of Indigenous children.

8.98 The committee further believes that families of hearing impaired children choosing schools for their children should be able to easily find out where such facilities exist.

8.99 The committee notes that many education providers, school leaders and teachers are aware of hearing impairment issues in education. Nonetheless, the experiences of parents and hearing health professionals attempting to engage the support of schools suggest to the committee that more needs to be done to raise hearing impairment issues with educators. The committee believes that some teachers may be unaware that they are dealing daily with behaviours in children that are symptomatic of hearing impairment. Furthermore, that even if teachers are aware they may lack the appropriate skills, resources and support to address them.

8.100 The committee believes that the Goldfields Ear Health Conference is of enormous value to ear health research and professional development in Australia, especially in regard to Indigenous ear health and education. This event should be a fixture in the calendar of people working in this field, and in light of the crisis in Indigenous ear and hearing health its future should be guaranteed.

8.101 The committee believes that Menzies School of Health Research and Australian Health Infonet are making a vital contribution to Indigenous ear health research and practice through the Ear Health Infonet. This resource makes evidence based good practice and resources available to even the most remote practitioner, and provides a site where people can share ideas and seek help. The sharing of knowledge will be crucially important in improving Indigenous health outcomes, and in light of the crisis in Indigenous ear and hearing health the future of Ear Health Infonet should be guaranteed.

8.102 The committee is gravely concerned about the potential implications of hearing impairment on Indigenous Australians' engagement with the criminal justice system. Those most vulnerable are Indigenous people from remote areas who do not have English as their first language, or indeed who, due to early onset untreated hearing loss, have little means of communication at all.

8.103 The case has been made to the committee's satisfaction that there is likely to be a link between hearing impairment and higher levels of engagement with the criminal justice system. The committee believes that any improvements in overall Indigenous hearing health may also come to be seen 'downstream' in lower engagement with the criminal justice system, improved educational outcomes, and improvements in other health and social wellbeing indicators.

8.104 Witnesses gave evidence that communication difficulties between Indigenous people, the police and the courts may, in some cases, be caused by hearing

impairment, and that it could be mistaken for cross-cultural or language communication difficulties. Poor communication at a person's first point of contact with the criminal justice system can have enormous implications for that person, and indeed for the integrity of the system as a whole. As has been noted above, the High Court has set a precedent that a conviction where the accused was not able to hear or understand the proceedings is not safe.

8.105 The committee also heard evidence that hearing assistance devices in police stations and courtrooms are not always available, and believes that with the very high levels of hearing impairment amongst Indigenous Australians these facilities should be available as a matter of course. This is particularly the case for jurisdictions which have high numbers of Indigenous people from remote areas engaging with police and courts.

8.106 The committee heard that prison life is particularly difficult for hearing impaired Indigenous Australians serving a custodial sentence. In a world managed by bells and verbal instructions, daily life for the hearing impaired is an extra challenge, especially if their impairment is undiagnosed. The committee hopes that improved awareness of the level of hearing impairment among Indigenous people serving custodial sentences will drive improvements to the way correctional facilities are designed and run.

## **Recommendations**

8.107 The committee is making this series of recommendations in the hope that it will prompt the Australian Government to work closely with relevant authorities in all jurisdictions to review the convictions of hearing impaired Indigenous prisoners to ensure that they can be considered safe. The committee further hopes that systemic and procedural changes will follow that guarantee the protection of this vulnerable section of our community in future.

8.108 The committee notes that recommendations 23, 25, 26, 27, 28, 30 and 33 are directed at making improvements for all hearing impaired Australians. Whilst the weight of evidence which informed these recommendations was presented in the context of hearing impaired Indigenous Australians, the committee believes all Australians will benefit from their broad implementation.

### **Recommendation 21**

**8.109 The committee recommends that the Department of Education, Employment and Workplace Relations and Department of Health and Ageing jointly establish a task force to work across portfolios and jurisdictions on a plan to systemically and sustainably address the educational needs of hearing impaired Indigenous Australian children.**

### **Recommendation 22**

**8.110 The committee recommends that Australian Hearing be enabled under the *Australian Hearing Services Act 1991* to supply and maintain sound field**

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systems for classrooms in all new classrooms, and in all existing classrooms where there is a significant population of Indigenous children.

### **Recommendation 23**

**8.111** The committee recommends that the Department of Health and Ageing work with the Department of Education, Employment and Workplace Relations to develop a program with Australian Hearing to:

- (a) supply and maintain sound field amplification systems and acoustic conditioning in all new classrooms, and in all existing classrooms where there is a significant population of Indigenous children; and
- (b) report publicly on where sound field amplification systems and acoustic conditioning are installed to assist parents in making informed choices about schools for their children.

### **Recommendation 24**

**8.112** The committee recommends that education providers ensure that teacher induction programs for teachers posted to schools in Indigenous communities emphasise the likelihood that hearing impairment among their students will be very high. Induction programs for these teachers must include training on the effects of hearing health on education, and effective, evidence-based teaching strategies to manage classrooms where a majority of children are hearing impaired.

### **Recommendation 25**

**8.113** The committee recommends that the Department of Education, Employment and Workplace Relations work with jurisdictions to develop accredited professional development programs for teachers and school leaders on the effects of hearing health on education, and effective evidence-based teaching strategies to manage classrooms with hearing impaired children.

### **Recommendation 26**

**8.114** The committee recommends that the Department of Health and Ageing make the changes to Medicare necessary to enable specialists and practitioners to receive public funding support for ear health services provided remotely via ear telehealth.

### **Recommendation 27**

**8.115** The committee recommends that the Department of Health and Ageing work closely with state and territory jurisdictions to develop and implement a national plan which:

- (a) provides resources to conduct hearing assessments for all Australians serving custodial sentences who have never received such an assessment, including youths in juvenile detention; and
- (b) facilitates prisoner access to those hearing assessment; and

- (c) encourages a high level of participation in those hearing assessments; and
- (d) makes the findings of the hearing assessments available to the public (within privacy considerations).

### **Recommendation 28**

**8.116** The committee recommends that the relevant ombudsman in each state and territory conduct an audit of Australians serving custodial sentences, including youths in juvenile detention, and consider whether undiagnosed hearing impairment may have resulted in a miscarriage of justice and led to any unsafe convictions.

### **Recommendation 29**

**8.117** The committee recommends that the Department of Health and Ageing:

- (a) provide funding and resources to manage a national biennial Indigenous ear health conference; and
- (b) make the outcomes of those conferences publicly available to assist researchers and practitioners in the field of hearing health.

### **Recommendation 30**

**8.118** The committee recommends that the Department of Health and Ageing work with state and territory health agencies to provide funding to support the continuation, promotion and expansion of the Ear Health Infonet.

### **Recommendation 31**

**8.119** The committee recommends that guidelines for police interrogation of Indigenous Australians in each state and territory be amended to include a requirement that a hearing assessment be conducted on any Indigenous person who is having communication difficulties, irrespective of whether police officers consider that the communication difficulties are arising from language and cross-cultural issues.

### **Recommendation 32**

**8.120** The committee recommends that the National Judicial College of Australia work with state and territory jurisdictions to develop and deliver accredited professional development programs for judges, lawyers, police, correctional officers and court officials on the effects of hearing impairment on Indigenous engagement with the criminal justice system, and effective evidence-based techniques for engaging effectively with people with a hearing impairment in courtroom environments.

**Recommendation 33**

**8.121** The committee recommends that hearing loops are available in interview rooms and public counters of all police stations, and in all courtrooms, and that loop receiver devices be made available for people without hearing aids.

**Recommendation 34**

**8.122** The committee recommends that correctional facilities in which greater than 10 per cent of the population is Indigenous review their facilities and practices, and improve them so that the needs of hearing impaired prisoners are met.

**Senator Rachel Siewert**

**Chair**



## APPENDIX 1

### Public Submissions and Additional Information received by the Committee

- 1 Robertson, Ms Margaret
- 2 Rosen, Dr Jenny
- 3 Demmery, Mr Peter
- 4 Coates AO, Professor Harvey
- 5 Safe Work Australia
- 6 Boully, Dr John
- 7 Better Hearing Australia
- 8 Wimberger, Mrs Jennifer
- 9 University of Melbourne, Audiology and Speech Sciences
- 10 National Aboriginal Community Controlled Health Organisation
- 11 Telethon Speech and Hearing
- 12 Name withheld
- 13 Name withheld
- 14 Williams, Dr Warwick
- 15 Pearcy, Mr John
- 16 Aussie Deaf Kids
- 17 Collingridge, Dr Louise
- 18 Australian College of Audiology
- 19 Deaf Australia (NSW)
- 20 Let Us Hear
- 21 Cook, Ms Genelle
- 22 Quota International of the Leisure Coast Inc
- 23 Connect Hearing
- 24 Australian and New Zealand Parents of Deaf Children
- 25 Parents of Hearing Impaired of South Australia

- 26 Jackson, Ms Leonie
- 27 Canberra Deaf Children's Association
- 28 Sydney Cochlear Implant Centre
- 29 Services for Australian Rural and Remote Allied Health (SARRAH)
- 30 Media Access Australia
- 31 Sanchez, Associate Professor Linnett
- 32 NSW Hospital Audiologists and Allied Audiologists
- 33 Farmsafe Australia
- 34 Deafness Forum Australia
- 35 Dourlay, Ms Melissa
- 36 Clutterbuck, Mr Neil and Ms Susan
- 37 deaf access Victoria Gippsland Region
- 38 Australian Hearing
- 39 North Shore Deaf Children's Association
- 40 deaf access Victoria Hume Region
- 41 Hearing Impaired and Deaf Kindred Organisation Network
- 42 Cochlear Implant Clinic - Royal Victorian Eye and Ear Hospital
- 43 GlaxoSmithKline
- 44 Access Innovation Media
- 45 HEARING Cooperative Research Centre
- 46 National Disability Services
- 47 Southern Health Audiology Department
- 48 Deaf Society of NSW
- 49 ENT Cochlear Implant Surgeons Qld
- 50 Department of Families, Housing, Community Services and Indigenous Affairs
- 51 Name withheld
- 52 Deaf Australia Inc
- 53 Shepherd Centre
- 54 Department of Health and Ageing

- 55 Australian Communications Exchange
- 56 Deafness Foundation
- 57 Cochlear Limited
- 58 Alliance for Deaf Children
- 59 Senses Foundation Inc
- 60 Siemens Hearing Instruments Pty Ltd
- 61 Hearing Aid Manufacturers and Distributors Association of Australia
- 62 Hearing Care Industry Association
- 63 Parent Council for Deaf Education
- 64 Cora Barclay Centre
- 65 Better Hearing Australia Brisbane Inc
- 66 Ear Science Institute Australia
- 67 Royal Institute for Deaf and Blind Children
- 68 Australasian Newborn Hearing Screening Committee
- 69 Australian DeafBlind Council
- 70 MacDonald, Ms Jane
- 71 "Hear the Mums"
- 72 Self Help for Hard of Hearing People Australia Inc
- 73 Quota International of Camden
- 74 Audiology Australia
- 75 Deafness Council of NSW
- 76 Meniere's Australia
- 77 Community and Public Sector Union
- 78 Name withheld
- 79 Smith, Ms Erica
- 80 Jones, Mr Alex
- 81 Edwards, Ms Shirley
- 82 Locke, Ms Kate
- 83 Raxworthy, Ms Judith

- 84 Wishart, Mr Michael
- 85 Choy, Ms Monique
- 86 Couani, Mr John
- 87 Closs, Mr David
- 88 Kiyega, Ms Julie-Anne
- 89 Modrovich, Mr Nick
- 90 Bleckly, Ms Felicity
- 91 Kordic, Ms Lily
- 92 Hockridge, Ms Barbara
- 93 Spraggon, Mr Chris and Ms Theresa
- 94 Ulrich, Mr Leonard
- 95 McNeill, Ms Celene
- 96 Froyland, Ms Glenda
- 97 Nelson, Mr Bruce
- 98 Lockrey, Mr Michael
- 99 Locke, Ms Jennifer
- 100 Ryan, Ms Adelaide
- 101 Obermayer, Mr Ben
- 102 Carter, Ms Susanna
- 103 Moule, Mr Derek
- 104 Lee, Ms Jenny
- 105 Sarantos, Ms Sue
- 106 Lindley, Mr Peter
- 107 Beaumont, Mr Lynnden
- 108 Fennell, Ms Shona
- 109 National Ethnic Disability Alliance
- 110 Australian Human Rights Commission
- 111 Hogan, Dr Anthony
- 112 Howard, Dr Damien (Phoenix Consulting)

- 113 Better Hearing Australia (Victoria) Inc
- 114 Reynolds, Ms Mary
- 115 Hickey, Mr Paul
- 116 Lalor, Mr Daniel
- 117 Hachem, Ms Kym
- 118 Sutcliffe, Ms Hilda
- 119 Ashley, Mr Daniel
- 120 Eakin, Ms Elizabeth
- 121 Fyfe, Ms Roslee
- 122 Payne, Ms Jessica
- 123 Snail, Ms Michelle
- 124 Pittman, Mr Kevin
- 125 Name withheld
- 126 Wakeling, Mr John
- 127 Fulton, Pat
- 128 Nudd, Ms Barbara
- 129 Batterham, Ms Yvonne
- 130 Alcorn, Ms Margaret
- 131 Brooks, Ms Angela
- 132 Evans, Ms Janice
- 133 Ryan, Mrs Mary
- 134 Attune Hearing Pty Ltd (Attune)
- 135 Department of Veterans Affairs
- 136 Australian Bureau of Statistics
- 137 Australian Society of Otolaryngology Head and Neck Surgery
- 138 Tasmanian Department of Health and Human Services
- 139 Cam, Ms Mavis
- 140 Frost, Ms Renee
- 141 Kennett-Smith, Ms Eleanor

- 142 Kingston, Ms Jessica
- 143 Braendler, Mr Matthew and Ms Michelle
- 144 Hearing Link Tasmania
- 145 South Australian Government
- 146 Northern Territory Government
- 147 Victorian Deaf Society
- 148 LePage, Dr Eric and Murray, Dr Narelle
- 149 Australian Indigenous HealthInfoNet
- 150 Name withheld
- 151 Nelson, Ms Sandi
- 152 Department of Mines and Petroleum (WA)
- 153 Hear and Say Centre
- 154 Western Australian Department of Health
- 155 Lindsay, Dr Andrea
- 156 Meniere's Australia
- 157 Australian Institute of Occupational Hygienists
- 158 McQuigg, Ms Karen
- 159 Middleton, Ms Lynne
- 160 Hyde, Professor Merv and Power, Professor Des
- 161 Name withheld
- 162 Marcus, Mr Isaac
- 163 Adam, Mr Robert
- 164 Banks, Ms Jodie
- 165 Haseldine, Ms Nikki
- 166 Bentley, Mrs Janet
- 167 NSW Department of Health
- 168 Uniacke, Mr Michael
- 169 Lund, Mr Barnaby
- 170 North Australian Aboriginal Justice Agency

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- 171 Pfizer Australia
  - 172 Acoustics and Vibration Unit, UNSW@ADFA
  - 173 Kimberley Aboriginal Medical Services Council
  - 174 Menzies School of Health Research
  - 175 National Seniors Australia
  - 176 Deaf Children Australia
  - 177 Deaf Indigenous Community Consultancy
  - 178 Bhati, Mr U.N
  - 179 Adelaide Hearing Consultants
  - 180 Hearing Care Industry Association
  - 181 Whitchurch, Mr Brian
  - 182 Newcastle Elderly Citizens' Centre Incorporated
  - 183 Brown, Mr Aaron
  - 184 Higgs, Ms Val

## **Tabled Information**

### **1 SHHH Australia Inc**

*Supplementary information*

Tabled at hearing 11.11.09

- *Journal of SHHH Australia: hearing matters* February 2008, February 2009, April 2009, August 2009
- Access – Places with assistive listening systems

### **2 Lindley, Mr Peter**

*Supplementary information*

Tabled at hearing 7.12.09

- The Vicissitudes of Life: Experiences of a Consumer and Significant Other
- A Critical Analysis
- Counselling clients with acquired hearing impairment: Towards improved understanding and communication, M. Robertson, 1999.

- Document, Professor Louise Hickson.

### **3 Meniere's Australia**

*Supplementary information*

Tabled at hearing 8.12.09:

- Meniere's Support Group of Victoria Members Survey 2006
- Annual Report 2008-2009

### **Additional Information Received**

#### **1 Demmery, Mr Peter**

*Supplementary information*

- Copy of correspondence dated 16.10.09, received 23.10.09

#### **2 Coates AO, Professor Harvey**

*Supplementary information*

- Manual by Coates, H., Vijayasekaran, S., MacKendrick, A., Leidwinger, L., 2008, *Aboriginal Ear Health Manual*
- Report by Access Economics, February 2009, *The cost of burden of otitis media in Australia*

<http://www.accesseconomics.com.au/publicationsreports/showreport.php?id=190&searchfor=2009&searchby=year>

- Department of Health WA and Department Housing and Works WA, The Swimming Pool Study 2000-2006

*Copies of articles:*

- 'Otitis Media in Aboriginal Children – Tackling a major health problem', Coates, H., Morris, P., Leach, A., Couzos, S.
- 'Aboriginal Children's Ear Disease – The Slient Epidemic', Coates, H.
- 'Middle ear disease in Aboriginal children in Perth: analysis of hearing screening data, 1998-2004, Williams, C., Coates, H., Pascoe, E., Axford, Y., Nannup, I., MJA, Vol. 190, No.10, 18 May 2009
- 'Newborn Hearing Screening – the ultimate early detection strategy for hearing loss', Coates, H., Gifkins, K.
- 'Cost of treating otitis media in Australia", Taylor, P., Faeth, I., Marks, M., Del Mar, C., Skill, S., Pezzullo, L., Havyatt, S., Coates, H. Expert Reviews Ltd 2009, pp.133-149
- Additional information arising from the hearing on 9.12.09 relating to a proposed mobile surgical service received 14.12.09

#### **3 Safe Work Australia**

*Supplementary information*

Additional information from hearing 19.03.10

- 'Comparison of workers' compensation arrangements in Australia and New Zealand', Safe Work Australia, 2010

#### **4 Telethon Speech and Hearing**

*Supplementary information*

- Additional information arising from the hearing on 9.12.09 relating to data concerning funding and outcomes, received 16.12.09

#### **5 Let Us Hear**

*Supplementary information*

- Supplementary information dated 31.10.09

#### **6 Australian New Zealand Parents of Deaf Children (ANZPOD)**

*Supplementary information*

- Clarification concerning evidence given at hearing 13.10.09, dated 3.11.09

#### **7 Canberra Deaf Children's Association**

*Supplementary information*

- Additional information following hearing 12.10.09, received 20.10.09

#### **8 Farmsafe Australia**

- Answer to Question on Notice following hearing 11.11.09 relating to workers compensation claims in agriculture and financial access of farmers to hearing services offered by Australian hearing, dated 12.11.09

#### **9 Deafness Forum Australia**

*Supplementary Information*

- Supplementary submission following hearing 12.10.09, received 25.02.10
- Additional information following hearing 7.12.10, received 25.02.10
- Annual report 2007-2008

#### **10 Australian Hearing**

- Responses to questions on notice arising from the hearing 11.11.09, received 16.12.09
- Responses to questions on notice arising from hearing 19.03.10, received 16.04.10.
- Annual report 2009

#### **11 Access Innovation Media**

*Supplementary information*

- Additional information arising from the hearing 7.12.09 relating to the impact captions have at building and developing literacy in children

received 11.12.09

**12 Shepherd Centre**

*Supplementary information*

- Additional information from the hearing 12.10.09 relating to funding for early intervention for hearing impaired children, outcomes assessments and issues concerning Auditory-Verbal Therapy and Speech Pathology, dated 30.10.09

**13 Department of Health and Ageing**

*Supplementary information*

- Copy of presentation at hearing 12.10.09
- Clarification of evidence from hearing 12.10.09, dated 28.10.09
- Clarification of evidence from hearing 19.03.10, received 9.04.10
- Responses to questions on notice arising from hearing 12.10.09, received 16.11.09
- Responses to questions on notice 1-12 arising from hearing 19.03.10, received 23.04.10
- Responses to questions on notice 13-16, 18, 19-20 arising from hearing 19.03.10, received 4.05.10
- Responses to questions on notice 17, 19, 21-22 arising from hearing 19.03.10, received 6.05.10

**14 Deafness Foundation**

*Supplementary information*

Additional information from hearing 8.12.09, received 5.02.10

- Annual report 2007
- Annual report 2008
- Annual report 2009

**15 Royal Institute for Deaf and Blind Children**

*Supplementary information*

- 2008 Annual Report, Royal Institute for Deaf and Blind Children  
[http://www.ridbc.org.au/pdf/2008annualreport\\_full.pdf](http://www.ridbc.org.au/pdf/2008annualreport_full.pdf)

**16 Australian DeafBlind Council**

*Supplementary information*

- Additional information dated 24.11.09

**17 National Ethnic Disability Alliance**

- Article referenced in submission

**18 Australian Human Rights Commission**

*Supplementary information*

- Response to questions on notice arising from hearing 11.11.09, received 19.01.10

**19 Howard, Dr Damien (Phoenix Consulting)**

*Supplementary information*

Additional information received at hearing 16.02.10

- 'Ear Troubles: Conductive Hearing Loss, Behaviour Problems and Learning', Training for Educators, D. Howard
- 'Supporting employees who have a hearing loss, A guide for Supervisors and Mentors', Howard, D, Henderson, I., Phoenix Consulting, 2009
- 'Conductive Hearing Loss and Ear Infections: understanding and managing the effects of children's hearing loss caused by Otitis Media, A Guide for Families and Teachers', D. Howard, Phoenix Consulting 2010
- 'Ear Disease and Aboriginal Families', pp.9-11, *Aboriginal and Islander Health Worker Journal*, 2006
- 'Intercultural Communications and Conductive Hearing Loss', *First People's Child & Family Review*, 2007

**20 Northern Territory Government**

*Supplementary information*

- Additional information on NT Department of Employment, Education and Training Hearing Team Programs, received at hearing 16.02.10

**21 Victorian Deaf Society**

*Supplementary information*

Additional information arising from the hearing received 8.12.09:

- 'Review of the Fire Alarm Subsidy Scheme for Deaf and hard of hearing Victorians', L. Willoughby, Vicdeaf, 2009
- 'Auslan interpreter services in Australia: supply and demand', Access Economics, 2008
- 'The economic impact and cost of hearing loss in Australia', Access Economics, 2006

**22 North Australian Aboriginal Justice Agency (NAAJA)**

- Response to question on notice, received 18.03.10

**23 Acoustics and Vibration Unit, UNSW@ADFA**

- Additional information arising from hearing 19.03.10

**24 Menzies School of Health**

*Supplementary information*

- Annual Report 2005

Additional information provided after hearing 16.02.10, received 19.03.10:

- EarInfoNet Brochure
- EarInfoNet overview and budget information
- 'New horizons: Otitis media research in Australia', P.S. Morris, P. Richmond, D. Lehmann, A.J. Leach, H. Gunasekera and H.L. Coates, 2009
- 'Recommendations for Clinical Care Guidelines on the Management of Otitis Media in Aboriginal and Torres Straight Islander Populations', Commonwealth Department of Health and Aged Care, 2001
- 'Research Note: The Antiquity of Chronic Ear Disease in Australian Aboriginal Children', John E. Stuart, Hunter England Health Service and The University of Newcastle, 2007

**25 Perry, Dr Chris**

*Supplementary Information*

- 'Deadly Ears, Deadly Kids, Deadly Communities: 2009-2013. Making tracks to close the gap in ear health in Aboriginal and Torres Strait Islander children in Queensland', The State of Queensland, Queensland Health, 2009

## APPENDIX 2

### Public Hearings

***Monday, 12 October 2009***  
***Parliament House, Canberra***

**Committee Members in attendance**

Senator Claire Moore (Acting Chair)

Senator Sue Boyce

Senator John Williams

**Witnesses**

**Department of Health and Ageing**

Ms Mary McDonald, A/g First Assistant Secretary,  
 Regulatory Policy and Governance Division

Ms Teressa Ward, National Manager Office of Hearing Services

Ms Joy Savage A/g First Assistant Secretary, Aboriginal and Torres Strait Islander Health

Ms Tarja Saastamoinen, Assistant Secretary Family Health and Wellbeing Branch

Dr Geetha Isaac-Toua, Medical Advisor, Public Health Advisory Unit, Aboriginal and Torres Strait Islander Health

Dr Bernie Towler, Principal Medical Advisor, Office of Health Protection

**Deafness Forum of Australia**

Ms Nicole Lawder, Chief Executive Officer

Ms Sharan Westcott, Deputy Chair

**ACT Deafness Resource Centre**

Mr John Sykes, President, Management Committee

**Services for Australian Rural and Remote Allied Health (SARRAH)**

Mr Rod Wellington, Chief Executive Officer

Ms Shaunine Quinn, Chief Executive Officer, Neurosensory Unit (Queensland)

**Canberra Deaf Children's Association**

Ms Wendy McMullen, Vice President

Mr Rod Pymont

**Shepherd Centre**

Ms Anthea Green, Chief Executive Officer

**Tuesday, 13 October 2009**  
**New South Wales Parliament House, Sydney**

**Committee Members in attendance**

Senator Claire Moore (Acting Chair)  
Senator Judith Adams  
Senator Sue Boyce  
Senator John Williams

**Witnesses**

**Sydney Cochlear Implant Centre (SCIC)**  
Mr Chris Rehn, General Manager

**Hearing Aid Manufacturers and Distributors Association of Australia**  
Mr David Rundell, President  
Mr Ashley Wilson, Vice President

**Let Us Hear**

Mrs Margaret Colebrook  
Ms Noeleen Hiron, Secretary  
Ms Barbara Fisher, Committee Member

**Australian Hearing**

Professor Harvey Dillon, Director, National Acoustic Laboratory  
Ms Margaret Dewberry, Executive Manager, Indigenous and Multicultural Services  
Ms Alison King, Principal Audiologist Paediatric Services

**Mr Alex Jones**

**Ms Leonie Jackson**

**Aussie Deaf Kids**

**Parents with Children with Unilateral Hearing Loss**

**Australian New Zealand Parents of Deaf Children**

Ms Ann Porter, Chief Executive Officer, Aussie Deaf Kids  
Mrs Sue Rayner, on behalf of Australian New Zealand Parents of Deaf Children

**Deaf Society of NSW**

Ms Sheena Walters, Senior Manager, Services  
Ms Kate Nelson, Program Officer

**Royal Institute for Deaf and Blind Children**

**National Newborn Hearing Screening Committee**

Professor Greg Leigh, Chair RIDBC and Chair NNHSC

**Wednesday, 11 November 2009**  
**Wesley Conference Centre, Sydney**

**Committee Members in attendance**

Senator Rachel Siewert (Chair)  
Senator Judith Adams  
Senator Sue Boyce  
Senator Claire Moore  
Senator John Williams

**Witnesses**

**Australian Human Rights Commission**

Mr Graeme Innes AM, Disability Discrimination Commissioner  
Ms Alison Aggarwal, Senior Policy Officer, Social Justice Unit  
Ms Cristina Ricci, Senior Policy Officer, Disability Rights Unit

**NSW Hospital Audiologists and Allied Audiologists**

Ms Monica Wilkinson, Audiologist  
Mrs Jenny Rosen, Audiologist  
Mrs Barbara Nudd, Chief Audiologist  
Mrs Jenelle Cook, Chief Audiologist  
Mr Hans Satyan, Chief Audiologist

**Deaf Australia (NSW)**

Ms Kate Nelson  
Mr Donovan Mulligan

**SHHH Australia Inc**

Mr Richard Brading, President

**National Ethnic Disability Alliance**

Mr Dinesh Wadiwel, Executive Officer

**Ms Kate Locke**

**Farmsafe Australia**

Ms Julie Depczynski

**Australian Hearing**

Professor Harvey Dillon, Director, National Acoustics Laboratory  
Ms Margaret Dewberry, Executive Manager, Indigenous and Multicultural Services  
Ms Samantha Harkus, Manager, Indigenous Services

**Hearing Care Industry Association**

Ms Donna Staunton, Chief Executive Officer  
Mr John Gimpel, Director

Mr Peter Carstensen, Director

***Monday, 7 December 2009***  
***Brisbane Exhibition and Conference Centre, Brisbane***

**Committee Members in attendance**

Senator Rachel Siewert (Chair)

Senator Judith Adams

Senator Sue Boyce

Senator Claire Moore

**Witnesses**

**Dr Chris Perry**

**Deaf Australia Inc**

Ms Karen Lloyd, Executive Officer

**Mr Peter Lindley**

**Attune Hearing Pty Ltd**

Mr Patrick Gallagher, Executive Chairman

Ms Jenny Stevens, Clinical Director

**Ai Media**

Mr Tony Abrahams, Chief Executive

**Hear and Say**

Ms Dimity Dornan, Founder and Managing Director

Reimer, Mr Ray, Chairman

Ms Jane Black, Director

Mr Chris McCarthy, Executive Manager, People, Planning and Strategy

Mr Tim Hughes, Parents Advisory Committee Member

**Australian Communication Exchange**

Mr Alexander Gilliland, Chief Executive Officer

Ms Tegan Jones, Director of Strategy and Planning

***Tuesday, 8 December 2009***

***The University of Melbourne, Melbourne***

**Committee Members in attendance**

Senator Rachel Siewert (Chair)

Senator Judith Adams

Senator Sue Boyce

Senator Claire Moore

## **Witnesses**

### **HEARing CRC**

Associate Professor Robert Cowan, Chief Executive Officer

### **Audiology and Speech Sciences, University of Melbourne**

Professor Richard Dowell

### **Better Hearing Australia**

Mrs Jacqueline O'Callaghan, President

### **Australian DeafBlind Council**

Mr John Finch

Ms Michelle Stevens, Member, ADBC

Ms Carla Anderson, Member, ADBC

Tactile signing was provided by Dennis Witcome, Sarah Howell, Meredith Bartlett and Kathy Leibick

### **Meniere's Australia**

Mr John Cook, President

Ms Lyn Polson, Honorary CEO/Secretary

Mr Richard Osborn, Committee Member

### **Audiology Australia**

Mr Jim Brown, President

Dr Catherine McMahon, Vice President

Ms Monica Persson, Chief Executive Officer

### **Victorian Deaf Society**

Mr Graham Kelly, Chief Executive Officer

Dr Louisa Willoughby, Researcher

### **Deafness Foundation**

Ms Noeleen Bieske, Director

A/Professor Brian Pyman, Board Member

Dr Adrian Thomas, Board Member

### **Alliance of Deaf Children**

Ms Marilyn Dann, Board Member, Taralye

*Wednesday, 9 December 2009  
Perth Exhibition and Conference Centre, Perth*

**Committee Members in attendance**

Senator Rachel Siewert (Chair)

Senator Judith Adams

Senator Claire Moore

**Witnesses**

**Australian Society of Otolaryngology Head and Neck Surgery**

Dr Stuart Miller, President

**Professor Harvey Coates AO**

**Senses Foundation Inc**

Ms Debbie Karasinski, Chief Executive Officer

Ms Elvira Edwards, Senior Manager

Mr Matthew Wittorff, Manager, Therapy and Specialist Services

**Telethon Speech and Hearing**

Mr Paul Higginbotham, Chief Executive Officer

**Ms Ann Jacobs**

**Ear Science Institute Australia**

Professor Robert Eikelboom

**Australian Indigenous HealthInfoNet**

Ms Jane Burns, Senior Research Officer

**Western Australian Department of Health**

Dr Robyn Lawrence, Acting Director General

*Tuesday, 16 February 2010  
Darwin Convention Centre, Darwin*

**Committee Members in attendance**

Senator Rachel Siewert (Chair)

Senator Judith Adams

Senator Sue Boyce

Senator Mark Furner

Senator Claire Moore

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**Witnesses****Northern Territory Government**

Ms Kathy Currie, Hearing Health Program Leader

Ms Amarjit Anand, NT Hearing Manager - Principal Audiologist

**Mr Derek Moule****Mr Lou Leidwinger** [via teleconference]

Regional Audiologist, Kimberley Aboriginal Medical Services Council

**Northern Territory Department of Education**

Ms Denyse Bainbridge, Coordinator Hearing Team, Student Services Division

Mr Peter White, Director Disability Services

**Menzies School of Health Research**

Assoc Professor Peter Morris

Ms Anna Stephen, PhD Student

Ms Felicity Ward, Project Coordinator

**Ms Sandra Nelson****North Australian Aboriginal Justice Agency**

Mrs Dorothy Fox, Board Director

Mr Jared Sharp, Manager Advocacy

Ms Elizabeth Temple, Member

**Mr Damien Howard****Mrs Alison Wunungmurra**

*Thursday, 18 February 2010*

*Chifley Alice Springs Resort, Alice Springs*

**Committee Members in attendance**

Senator Rachel Siewert (Chair)

Senator Judith Adams

Senator Mark Furner

Senator Claire Moore

**Witnesses****Central Australian Youth Link Up Service**

Mr Tristan Ray, Manager

Mr Blair McFarland, Co-Manager

Mr Ilan Warchivker, Consultant, Health Economic and Economic Development

**Mrs Rebecca Allnut**

Audiologist

*Friday, 19 March 2010*

*Parliament House, Canberra*

**Committee Members in attendance**

Senator Rachel Siewert (Chair)

Senator Sue Boyce

Senator Concetta Fierravanti-Wells

Senator Claire Moore

**Witnesses**

**Safe Work Australia**

Wayne Creaser, Branch Manager, Research and Data Branch

Fleur Champion de Crespigny, Assistant Director, Research and Evaluation Section

**Australian Hearing**

Professor Harvey Dillon, Director of Research

Ms Gina Mavrias, Executive Manager, Operations

Ms Samantha Harkus, Manager, Indigenous Services

**NTER Hearing Assessment – via teleconference**

Ms Kathie Currie, Hearing Health Program Leader, NT Department of Health and Families

Ms Kacy Kohn, East Arnhem Regionalisation Coordinator, NT Department of Health and Families

**Mrs Jo Nixon – via teleconference**

**Department of Health and Ageing**

Ms Mary McDonald, First Assistant Secretary, Regulatory Policy and Governance Division

Ms Teressa Ward, National Manager, Office of Hearing Services

Ms Tarja Saastamoinen, Assistant Secretary, Family Health and Wellbeing Branch, Office of Aboriginal and Torres Strait Islander Health

Mr Craig Ritchie, Assistant Secretary, Remote Health Service Development Branch, Office of Aboriginal and Torres Strait Islander Health

Dr Bernie Towler, Principal Medical Advisor, Office of Health Protection

Mr Peter Woodley, Assistant Secretary, Medicare Financing and Analysis Branch, Medical Benefits Division