Western Australian General health screening
Submission

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Introduction

Currently, **one in six** Australians has some form of hearing impairment, and this is projected to increase to one in four by 2050[1]. It is imperative that hearing loss in children be identified at an early age to ensure proper social and educational support.

About the Deafness Forum

Deafness Forum is the peak body for deafness in Australia. Established in early 1993 at the instigation of the Federal government, the Deafness Forum now represents all interests and viewpoints of the Deaf and hearing impaired communities of Australia (including those people who have a chronic disorder of the ear and those who are DeafBlind).

The Deafness Forum exists to improve the quality of life for Australians who are Deaf, have a hearing impairment or have a chronic disorder of the ear by:

- advocating for government policy change and development
- making input into policy and legislation
- generating public awareness
- providing a forum for information sharing and
- creating better understanding between all areas of deafness.

Our consultation process

Deafness Forum has consulted with members in all states of Australia to gather feedback on this topic. Our responses represent a number of comments received and our own deductions based on our continuing engagement with members and referral of complaints and questions.

Scope

Our comments relate solely to hearing screening.

Comments and Responses

Appraisal of the adequacy and availability of screening processes for hearing, vision, speech motor skills difficulties and general health

Newborn hearing screening

Research, clinical practice and experiences reinforce the tenet that children who enter early intervention before six months of age will have the greatest opportunity to achieve their fullest potential across all developmental domains. The most effective way of detecting infants with hearing loss early enough to promote the best possible outcomes is through universal neonatal hearing screening for all newborns.

The lack of Newborn Hearing Screening (NHS) in Western Australia is of great concern to the Deafness Forum of Australia. Babies in many areas of Western Australia are

[1] Access Economics: *Listen Hear! The economic impact and cost of hearing loss in Australia*, February 2006, pp.41

disadvantaged, potentially for the rest of their lives, because they are not getting the best possible start in life.

Babies born anywhere in WA – metropolitan, regional, rural and remote areas, including indigenous communities should have their hearing screened within days of birth. It should not be limited to those with identified "risk factors". More than 90 per cent of deaf babies are born to hearing parents, many of these have no identified risk factors.

Children with identified risk factors should all be screened for hearing loss. For example, those who are admitted to a Neonatal Intensive Care Unit for more than 48 hours may possess more than one risk factor for deafness – for example, prematurity, anoxia and low birth weight.

Expansion of the newborn hearing screening across WA is imperative to ensure that every WA child has the best possible start in life. The longer these babies go without detection, the more their life-long outcomes are affected.

In NSW, for example, the SWISH Program (Statewide Infant Screening – Hearing) has been running for five years and in that time has screened 354,785 babies. From there 2,700 diagnostic audiology assessments have been carried out and paediatric assessment and parent support had been provided to over 700 infants across NSW.

State	Prop births	Year	Status	Coverage
NSW	0.33	2002	Universal	>95%
Vic	0.24	2005	Partial	~30%
Qld	0.20	2004	Universal	>97%
SA	0.07	2003	Universal	> 95%
WA	0.10	2002- 03	Partial	~48%

State of the States in Australia (Leigh, 2006; Ching et al, 2006)

Deafness Forum is separately lobbying the Victorian government about their program, which has had considerable funding allocated to it recently.

Permanent childhood hearing impairment has a negative impact on children's language development and educational attainment. Recent research shows that if intervention were provided early in life, the language development of hearing impaired children might be improved, so early detection and intervention are paramount to later outcomes. However, hearing loss can manifest later in childhood, so further hearing screenings (for example, at school entry) are also required. Early detection and early intervention should result in vastly improved outcomes for Deaf and hearing impaired children in terms of communication skills, educational achievement, mental health and quality of life. This then would ultimately translate into substantial cost savings, both to the government and the community as a whole.

In those areas and communities where newborn hearing screening is available, it has had a very positive impact in the community (both amongst parents/families and professionals) in raising the awareness of potential hearing loss in infants.

Early detection and quality, consistent and integrated early intervention should result in vastly improved outcomes for Deaf and hearing impaired children and their families, in terms of communication skills, educational achievement, mental health and quality of life. This will ultimately translate into substantial cost savings to the government and the community as a whole.

There have been suggestions that a NHS program would not be feasible in WA due to the increased rate of early postnatal discharge – that is, babies not staying in hospital for the period of time necessary to facilitate the screening process. A similar issue has been raised in the United Kingdom, however it was found that regardless of pre-discharge, hearing screening was found to be available at a maximal coverage of 92.68% with a false positive rate of 6.2%. The study found that the majority of children passed through the respective hospitals at a convenient time (between 9am and 2pm, 7 days a week) and accordingly were screened.[2] This could be achieved in WA.

Pre-primary and Primary school level hearing screening

Hearing can deteriorate at any time during life, and many more children suffer from hearing loss at school entry than are picked up at newborn hearing screening. Tadashi et al, suggest that screening should be performed within the first three months of infant's life but not be limited to screening done prior to hospital discharge, and incorporated into the routine health care program for one-month-old infants without reducing efficiency. [3]

However for children who develop/acquire a hearing loss after the NHS time frame, pre-school or pre-primary hearing screening would ensure that a child is identified and intervention occurs before the child struggles through the education system for a few years and before the hearing loss may be picked up by the child's teachers. At this early stage, support can be given to the child and family to develop strategies for the child to get the most from their education/setting, or if young enough, to receive some early intervention before entering the education system.

Australia wide, education and support services comprise only 1.6 percent of the costs (spent by government) on hearing impairment[4]. This is the most critical area for a child with a hearing impairment and investment to ensure the child's success for the rest of their life will bring rewards.[5]

An assessment of access to appropriate services that address issues identified by an appropriate screening process.

Once a child is diagnosed with a hearing loss there are three forms of intervention available (not necessarily listed in any order):

- Hearing devices
- Language and communication intervention
- Assistive technology devices (usually in older children/adults)

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[2] Albuquerque, W., Kemp, David. T, The feasibility of hospital-based universal newborn hearing screening in the United Kingdom, in: Scandinavian Audiology, Vol.http://www.informaworld.com/smpp/title~content=t724921281~db=all~tab=issueslist~branches=30 - v3030, Issue.2, April 2001, pp.22 - 28

[3] Tadashi Wada a; Takeshi Kubo a; Tsunemasa Aiba a; Hideo Yamane, Further examination of infants referred from newborn hearing screening, in, Acta Oto-Laryngologica, Volu.http://www.informaworld.com/smpp/title~content=t713690940~db=all~tab=issueslist~branches=124 - v124124, Issue.S554 (September 2004) , pp.17 - 25

[4] Access Economics (2006) Listen Hear! The Economic Impact and Cost of hearing loss in Australia, p.7

[5] As forwarded by Yoshinaga-Itano et al, Language of early and later identified children with hearing loss, in, Pediatrics (1998), Vol.102, Issue.5, pp.1161-1171

Australian Hearing is a federal government agency which provides all children with free hearing devices (covering the first of the three forms of intervention). This is an international first, but while this provision of services is uniform and consistent there are no provisions on establishing early communication/language skills and how families can give their child the best start to developing these.[6.]

Australian Hearing provides services to 1,252 children in WA (as at 31 December 2007) or 9.2% of Australian children fitted with devices. Of these less than 200 were fitted for the first time (new fittings). Of an estimated 34 babies with hearing loss expected at the rate of 1.2 per '000 Births, Australian Hearing only fitted 9 WA babies with hearing aids by 6 months, and 12 months of age (26.8 per cent of expected)[7.]

Furthermore, there is a distinct issue with access to such services in isolated communities, especially those with a high indigenous population. The incidence of hearing loss in aboriginal communities – especially remote communities – is over-represented. A review by the Office of Aboriginal and Torres Strait Islander Heath (OATSIH) reported that ear disease (and subsequent hearing loss) were significant problems in the Aboriginal community[8]. Rates of hearing loss were reported between 10 to 40 percent. By United Nations criteria, a condition exceeding four percent is considered to be a significant public health problem.

The high incidence of hearing loss in the Aboriginal community has been linked to their living conditions and lack of sanitation. Children commonly develop "glue ear"[9] or otitis media which if left untreated may lead to perforated ear drums (as there is no air circulating in the middle ear) and permanent deafness[10]. Other factors contributing to hearing loss is the exposure to alcohol and cigarettes during pregnancy[11]. As a result of this, babies may be born with, or at greater risk of developing, a hearing loss due to premature birth.

Deafness Forum strongly recommends that the issues of accessibility in remote areas be addressed. Furthermore, it is of the utmost importance that national guidelines be formulated so that those who do have access to the ongoing services are provided with effective health screening and are assured of valuable support.

A cochlear implant clinic should also be considered to give people who are Deaf or have a hearing loss in WA further options for addressing their hearing loss.

Travel and distance are of course major problems for WA health services and adequate financial assistance for families travelling long distances for hearing and related appointments is important.

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[6] Shafer, D (2006) *Early Hearing Diagnosis Key to Language Skills*. The ASHA Leader - Audiology

[7] Demographic Details of Persons under the age of 21 years with a Hearing Impairment who have been fitted with a Hearing Aid - 2008 Australian Hearing

[8] Access Economics (2006) Listen Hear! The Economic Impact and Cost of hearing loss in Australia

[9] Glue ear is a conductive hearing loss where there is a build up of fluid in the middle ear

[10] *Penman, R (2006) Occasional Paper No 15: The "growing up" of Aboriginal and Torres Strait Islander children: A literature review. Department of Families, Community Services and Indigenous Affairs*

[11] Zubrick, 2004, cited in Penman, 2006 reported indigenous females are more likely to consume these substances while pregnant than non-indigenous females

The three types of assistance listed earlier (aids, language and assistive devices) does not address the expressive components of hearing loss and the support needs of the families. Consistent and appropriate support for families prior to, during and following the screening process could help families to navigate the lifelong journey that faces them when their child is assessed with a hearing loss.

Conclusion

Implementation of NHS and a pre-primary or primary school entry hearing screening would provide children and their families with the assurance that their needs were addressed and the best possible outcomes could be achieved for these children. The two (or more) sets of hearing screening would hopefully capture all children with hearing loss and hence support them appropriately.

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