

9th October 2009

Senate Community Affairs References Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Submitted by email to community.affairs.sen@aph.gov.au

Dear Committee Secretary,

RE: Inquiry into Hearing Health in Australia

I am writing on behalf of the HEARing Cooperative Research Centre (CRC), an organisation that is focused on the twin challenges of more effective prevention and improved remediation of hearing loss. Building on the previous successes of the CRC for Cochlear Implant and Hearing Aid Innovation (CRC HEAR 1999-2007) and the CRC for Implant, Speech and Hearing Research (1992-99), the HEARing CRC was funded in 2007 through the Commonwealth Government Cooperative Research Centre Program. The HEARing CRC includes five core and 21 support members who undertake research and offer additional cash and in-kind contributions. In total the CRC will invest over \$115 million total in hearing research over its seven-year funding period.

I wish to make a formal submission to the Hearing Health in Australia inquiry being undertaken by Community Affairs Reference Committee. Much of the statistical information in this submission is referenced to *Listen Hear!* A report commissioned in 2006 by CRC HEAR and the Victorian Deaf Society on the full economic impact of hearing loss in Australia. This report can be downloaded from: www.hearingcrc.org/Listen_Hear_Report.pdf.

My comments have particular reference to:

a) *the extent, causes and costs of hearing impairment in Australia*

- In 2006, hearing loss affected one in six Australians. An aging of the population coupled with rising noise levels in everyday life, means that the prevalence of hearing loss in Australia is projected to rise to one in four by 2050.
- There are a variety of causes of hearing loss, these include noise (occupational and recreational), acoustic shock and trauma, age-related hearing loss, congenital factors, disease and exposure to chemicals (ototoxins).

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- In 2005, the real financial cost of hearing loss was shown to be \$11.75 billion:
 - an average cost of \$3,314 per person, per annum (for each of the 3.55 million Australians with hearing loss)
 - \$578 for every Australian.

This cost increases by a further \$11.3 billion if the net cost of loss of well being (disease burden) as a result of hearing loss is also included, totalling \$23.05 billion.

b) the implications of hearing impairment for individuals and the community

- Hearing loss can result in a reduced capacity to communicate. The ability to listen and respond to words or sounds can be diminished with hearing loss, and with more severe losses, the ability to speak can also be impaired.
- A reduced capability to communicate can impact on an individual's education, employment and relationships.
- For children, hearing is critical to development of auditory skills (localising sounds and comprehending meaning of acoustic messages), speech and language. Hearing loss in children can impact on literacy, learning, education and later employment options.
- The burden of disease or 'loss of well being' caused by a disease is measured internationally in terms of Disability Adjusted Life Years (DALYs). In 2005, hearing loss was shown to be the cause of 95,005 DALYs in Australia, making up 3.8% of the total burden of disease from ALL causes of disability and premature death in the country.

c) the adequacy of access to hearing services, including assessment and support services, and hearing technologies

- Australia has been shown to offer some of the best hearing services in the world for children and pensioners. However, provision of these services is poorly extended to working age individuals, in particular those in low income groups.
- The same pattern is observed with access to both hearing aids and cochlear implants (with respect to children and pensioners), but is complicated by variation across States and Territories, and in the case of cochlear implants is further confused by access to single or bilateral implants.
- As hearing loss can contribute to difficulties in securing employment, this gap in provision has a significant implication for maintaining a healthy and productive workforce. This is of particular relevance given plans to extend the retirement age in Australia and the increase in hearing loss associated with aging populations.

d) the adequacy of current hearing health and research programs, including education and awareness programs

- Australia is home to a large number of leading international hearing researchers and also a number of key organisations that are recognised for their experience and expertise in this area, for example:
 - Macquarie University's audiology and cognitive research
 - National Acoustic Laboratories' hearing assessment / hearing aid work
 - The University of Melbourne's audiology and cochlear implant research
 - Cochlear Ltd's work on cochlear implant development

- The HEARing CRC plays a key role in connecting a broad range of academic, clinical and industry members (including those mentioned above) to ensure a coordinated research effort with targeted and tangible outcomes for the improved remediation of hearing loss.
- The HEARing CRC is also driving research programs towards technical and behavioral means of preventing hearing loss. In addition, it is investing in longer term strategies such as genetic screening approaches and development of molecular therapeutics to target early onset presbycusis. Within the CRC, the riskier investment associated with these novel approaches to prevention must be carefully balanced against the more immediate needs of remediation research – availability of additional resources would greatly facilitate this more speculative work that has significant potential for savings in the future.
- In terms of education and awareness programs, it is already well established that noise causes hearing loss. This message does need to be more effectively communicated to young people and their parents – especially with the ongoing development and increased availability of new listening technologies such as MP3 players.

e) specific issues affecting Indigenous communities

- Hearing loss in the Aboriginal community is very common.
- A systematic review of evidence commissioned by the Office of Aboriginal and Torres Strait Islander Health (OATSIH) reported that ear disease (particularly otitis media) and subsequent hearing loss were significant problems among Aboriginal communities. The prevalence of otitis media in children was reported to vary between 10% and 54%; subsequent perforated ear drums were reported to be between 9% and 35%; rates of hearing loss were reported between 10%-41%. These figures are significantly greater than observed in non-indigenous communities.
- Hearing in the school environment is a particular problem for aboriginal children with hearing losses. These losses are likely to be compounded by auditory processing disorders associated with a history of hearing loss and teaching being delivered in their second language. This problem can be addressed quite successfully through improved classroom acoustics and use of classroom amplification (sound field) systems.

I trust that my comments will be valuable in the Hearing Health in Australia inquiry and I look forward to hearing about and becoming involved in realising the outcomes that the Community Affairs Reference Committee identifies.

Yours Sincerely,



Dr Jane Sewell
Communication and Education Manager

On behalf of: A/Prof Robert Cowan, Chief Executive Officer