



9 October 2009

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

Dear Members,

Re: Inquiry into Hearing Health in Australia

Background information on the Ear Science Institute Australia

Established in 2001, Ear Science Institute Australia (ESIA), formerly the Lions Ear and Hearing Institute is an independent, not-for-profit organisation dedicated to the research and treatment of ear and hearing disorders. The Institute is led by internationally respected surgeon, Professor Marcus Atlas (ESIA Director), one of Australia's leading ear specialists. The ESIA is based in Perth, Western Australia.

Vision

To provide world class facilities and services for research and clinical activities aiming to improve the quality of life for people with ear disorders.

Mission Statement

Ear Science Institute Australia is a community focused partnership between research and clinical service dedicated to helping people with ear disorders improve their quality of life.

Core Objectives

- Foster a close collaborative working environment between clinical, research and educational activities;
- Provide high quality clinical care for people with ear disorders, and encourage clinical professionals to participate formally in research and educational activities;
- Undertake research that is focused on clinical outcomes that address ear issues of national and international significance, and attract high calibre researchers from a wide array of scientific endeavours; and
- Play an important role in the community in raising awareness of treatment for hearing conditions, the prevention hearing loss, and the importance of hearing for quality of life.

We would like to submit the following comment on Hearing Health in Australia with particular reference to:

- c) the adequacy of access to hearing services, including assessment and support services, and hearing technologies;
- e) specific issues affecting Indigenous communities.

Telehealth - Improving access to ear health services in rural and remote area

The economic costs to Australia of hearing loss and chronic ear disease have been well described in two recent reports by Access Economics (Access Economics: Listen Hear, 2006 and Access Economics: The cost burden of otitis media in Australia, 2009).

The extremely high prevalence of ear disease and hearing loss in Australian indigenous children, particularly those in rural and remote areas has been well documented for several decades. Significant barriers exist to accessing specialist services, associated with the shortage of ear specialists and audiologists, and the large distances faced to travel to access these services in regional centres. These factors including workforce shortages, competing clinical demands, the asymptomatic nature of most ear disease, low level of confidence in conducting ear examinations and inconsistent strategies for referral for primary medical review and treatment, work against routine examination of children's ears and early treatment of acute disease.

High quality evidence supports the effectiveness of clinical guidelines that call for routine investigation for ear disease and treatment with antibiotics and regular review. Where warranted, referral should be made to audiologists to address hearing loss and to otolaryngologists for medical review and possible surgery. The reality is that the current service model through the Pilbara means that only a small proportion of children receive care that conforms to these guidelines. Instead, there is a reliance on screening for chronic disease often in anticipation of visits by health professionals (otolaryngologists and audiologists) or as part of annual screening by school health nurses.

However, a reliance on face-to-face contact with scarce specialists to assess children 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.

ESIA have demonstrated that ear telehealth can provide a more efficient manner of delivering ear health care. The equipment can be used by health care workers from any background with only one or two days training, enabling the skills to detect ear disease in the hands of front line workers in Aboriginal community controlled health

services, rural and remote community clinics and schools. Our team has also shown that an ear specialist can make an assessment and provide management advice with good-quality still images of the eardrum and ear canal, audiometric and tympanometric data, and a detailed clinical history (Eikelboom, 2005).

ESIA have recently completed a study on the economic benefits of ear telehealth in the Pilbara (see Appendix A). Over a 25-year period, using a social perspective, a rollout of ear telehealth throughout the Pilbara generates a benefit-cost-ratio (BCR) of 25.3:1, with an economic benefit of over \$70mill.

If this were to be rolled out throughout Western Australia alone to reach all 13,400 indigenous children in remote and very remote regions (2006 ABS Census), the economic benefit will be close to \$400mill. The economic benefit to extend these services to the 33,000 indigenous children in South Australia, Northern Territory and Queensland 16 years and younger living in remote and very remote regions can be projected to be an extra \$900mill over 25 years.

Recommendations:

The role of telehealth should be promoted to address the severe inadequacy of access to ear health services by:

1. Establishing a Centre of Ear Telehealth in Western Australia to
 - (i) formulate clinical guidelines, training policies and technical standards;
 - (ii) engage clinicians to deliver telehealth in cooperation with existing visiting specialist schemes;
 - (iii) promote the services to remote regions;
 - (iv) deliver training and support services;
 - (v) investigate the economic benefits of using telehealth in urban areas;
 - (vi) advocate the use of telehealth throughout Australia with a view to establishing centres in each state; and
 - (vii) to evaluate outcomes, including the development and maintenance of the centralised register to record and monitor the state of ear health of Australian children.
2. Providing access to funding through Medicare for telehealth consultations.

On behalf of the ESIA I would like to thank the Senate Community Affairs References Committee for considering our comments on Hearing Health in Australia.

Yours Sincerely



Brett Robertson, PhD
General Manager

Reference:

Eikelboom RH, Mbaio MN, Atlas MD, Coates H, Gallop MA. Validation of tele-otology to diagnose ear disease in children, Int J Ped Otorhinolayngol, 69(6):739-744, 2005