

SUBMISSION TO THE AUSTRALIAN SENATE COMMUNITY AFFAIRS REFERENCES COMMITTEE

INQUIRY INTO HEARING HEALTH IN AUSTRALIA

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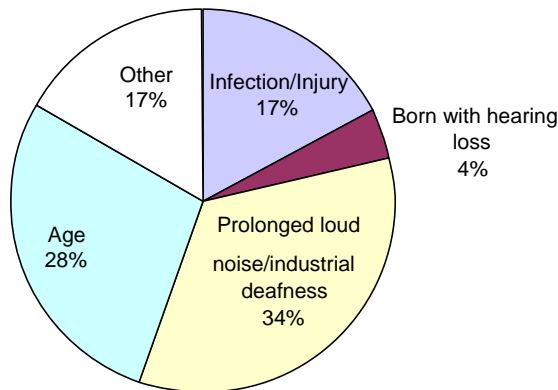
To Committee Secretary
Senate Community Affairs Legislation Committee
PO Box 6100
Parliament House
Canberra ACT 2600
Australia

Thank you for the opportunity to present your Senate Committee with information on this important topic. This submission includes collated comments from colleagues which are confined to our area of expertise, namely prevention of noise-induced hearing loss

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

A useful summary of the relative contributions to Hearing Loss is this pie chart from the US League for the Hard of Hearing¹: In Australia the results are probably similar. Australian Hearing states that the most significant single cause of hearing loss in Australia is exposure to loud noise². It is estimated that 37% of hearing loss is due to excessive noise exposure.

Causes of hearing loss



Source: League for Hard of Hearing

Galaxy Research³ recently (July 2009) reported on a survey of 300 Australian Hearing clients aged over 65 with a hearing loss. They found that:

- 52 per cent of all people surveyed and 80 per cent of men consider workplace noise to be a factor in their hearing loss.
- Less than four per cent of those surveyed first experienced hearing loss at younger than 18 years of age, highlighting that environmental factors play a very large part in hearing loss.
- Occupations that have exposure to continual high sound levels or bursts of very loud noise seem most at risk. These include boilermakers, fitters and turners, metal workers, joinery makers, carpenters, Armed forces (exposure to guns, explosives and jet engines), and hunters (firearms).

I understand from reading other submissions that your Inquiry has already been directed to the informative reports available on the Safe Work Australia website that estimate that about a third of workers in Australia are exposed to noise levels that could lead to noise-induced hearing loss^{4,5}.

In relation to costs, it is unfortunate that the otherwise excellent Access Economics report "*Listen Hear!*"⁶ does not provide sufficient information to estimate the costs of occupational noise-induced hearing loss. Although this report states that 37% of hearing loss is due to excessive noise exposure it does not distinguish between occupational and non-occupational exposures. Also you cannot simply take 37% of the estimated real financial costs of \$11.75 billion as being due to noise, as the two major components - productivity loss and the cost of informal carers - probably do not apply to the same extent to people with NIHL, which usually is in the mild to moderate categories rather than the severe to profound categories and more frequently has occurred towards the end of the working period

Proposal 1: Further research is needed to better define the real financial costs and disease burden of occupational noise-induced hearing loss in Australia.

Regulations relating to occupational NIHL have been in place in various forms in Australia since the 1980s. However, there are still cases of NIHL occurring – 3670 compensation claims paid in 2007/08⁷, and many workers are still exposed to excessive noise at work - 32% of workers interviewed in the 2008 National Hazard Exposure Worker Surveillance Survey said they were exposed to loud noise at work and of these 17% said no preventive measures were being taken in their workplaces⁵. So we still have much work to do in this area.

We keenly await the results of the Safe Work Australia's *Getting Heard* project that aims to identify the barriers to introducing better noise controls in workplaces, so that improved strategies to tackle occupational NIHL can be worked out. The results are due mid-2010, but in the meantime, your attention is directed to a recently published report on similar work done in British Columbia⁸ in the food and beverage manufacturing sector. Their key findings about barriers were:

- Acceptance and expectation of noise exposure by workers
- Perception by managers that noise exposure is a low priority health hazard
- Over-reliance on hearing protection devices
- Over-emphasis on individual worker responsibility to assess and report noise hazards
- Limitations in channels of communications between workers and management (e.g., employees reluctant to complain about noise concerns)
- Weak understanding of engineering noise controls and options
- Assumptions that engineering noise controls are not practicable
- Poor knowledge of regulatory requirements

Their recommendations to overcome these barriers include:

- Providing employers with information and support relating to noise control options and how to obtain relevant expertise for programmed engineered solutions
- Ensuring that hearing conservation programs are being implemented in a systematic way and include all components
- Educating employees about noise-induced hearing loss risk, engineering noise controls, and all hearing conservation programs components
- Educating equipment manufacturers about the risk of noisy equipment and the potential marketing benefits of quieter equipment.

Proposal 2: Ensure sufficient funds are available to follow up on the *Getting Heard* project, so that a coordinated national strategy to prevent workplace NIHL is implemented.

All Australian Occupational Health and Safety jurisdictions adopt the National Standard for Occupational Noise⁹ in their regulations. It is recognized that, whilst this standard will protect most people from large amounts of hearing loss, it is not a 'safe' level for those people who happen to be more susceptible to hearing damage. (Presently there is no test that will reliably predict if you are such a susceptible person.) A lead in this area is being taken by the European Union countries. They have regulations requiring that action on noise hazards starts to be taken at exposure levels 5 decibels below the

Australian National Standard. (See for example the UK regulations¹⁰ number 4(1).) They also require that risk assessments include consideration of any effects on the hearing health of workers resulting from the interaction between noise and ototoxic substances (e.g. solvents, heavy metals, asphyxiants and some pesticides) or between noise and vibration (See UK regulation 5(3)(c).) Research is being undertaken in Europe and the USA to establish if noise and chemical standards need to be altered for such combined exposures. There is an opportunity for provisions similar to those in Europe to be incorporated into the National model regulations and guidance material currently being drafted by Safe Work Australia as part of the harmonisation process.

Proposal 3: Ensure that World's best practice in regulating for the prevention of occupational hearing loss is incorporated into the Safe Work Australia harmonisation process.

Workers may also be exposed to noise in their leisure hours and this will add to the risk of noise-induced hearing loss in a cumulative way. As controls are introduced in the workplace, leisure noise will become a more important component. It is of concern that in Australia there are presently no regulatory controls on noise exposures of audiences at music and vehicle racing events and patrons in restaurants and bars and from the use of personal music players. The Europeans are again leading the way in these areas. An excellent report¹¹ was published in September 2008 by the EU Scientific Committee on Emerging and Newly Identified Health Risks on Personal Music Players and Hearing. This warned that listening to personal music players at a high volume over a sustained period can lead to permanent hearing damage. 5-10% of listeners risk permanent hearing loss. These are people typically listening to music for over 1 hour a day at high volume control settings. It estimated that up to 10 million people in the EU may be at risk. In September 2009 the European Commission sent a mandate¹² to CENELEC (the EU standardization body) requiring 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. The Product Safety Section of the ACCC has been alerted to these developments and we understand that they have established a project to look at these issues.

Proposal 4: Encourage the Product Safety Section of the ACCC to adopt safety standards for personal music players sold in Australia similar to those being introduced in Europe.

Another European example of regulatory action to reduce leisure noise exposure is the Swiss Public Health Sound and Laser Ordinance¹³. This sets limits on audience exposure at venues with amplified music. (93 dB(A) limit for events for under 16 year olds. 100 dB(A) limit for other events plus requirement to inform and supply free hearing protectors when over 93 dB(A)).

Upper limits on noise levels can be combined with education programs to make patrons aware of the steps they can take to reduce their noise exposure. These strategies include simple steps like requesting that the levels be turned down, minimising the time in the really loud noise areas, spending some time in quite spaces, moving back from the loudspeakers or racetrack, using ear plugs etc.

Proposal 5: Suggest to Australian authorities responsible for public health that they consider regulating for maximum noise levels in venues attended by the public.

Encourage education campaigns to warn particularly young people of the potential for damage to their hearing and of the simple strategies that can be adopted to reduce this risk.

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

The effects of hearing impairment on individuals and the community have been well covered in other submissions to your inquiry, so we will only add here that two areas where more Australian-specific research is needed are the contribution of hearing loss to workplace accidents and the setting of fair hearing level criteria for hearing-critical jobs. Often, critical verbal communications are carried out in noise, which can be very challenging, particularly for individuals with hearing loss. Commonly used diagnostic measures of hearing, such as the pure-tone audiogram, are not adequate to make accurate predictions of speech intelligibility in real-world environments for specific workers. Canadian researchers have made some progress in both these areas^{14, 15}. The first study found that 12.2% of the accidents considered were attributable to a combination of noise exposure in the workplace and noise-induced hearing loss. The second study found that using a 'Hearing in Noise Test' was a better screening tool than conventional audiometry. These results need to be validated in the Australian context.

Proposal 6: Consider funding research into the contribution of noise and hearing loss to accidents and to developing fair hearing level criteria for hearing-critical jobs.

c) The adequacy of access to hearing services

In WA, there is a requirement to be approved by WorkCover WA for practitioners taking audiograms for compensation purposes. These same audiometry and audiology businesses are also available to conduct hearing tests for workplaces as part of a hearing conservation program. However there may need to be additional services in the future if research shows that different audiological tests are required for properly assessing the effects of ototoxic substances.

Also, if individual members of the public wish to have their hearing assessed, there is no Medicare rebate which seems anomalous compared to eyesight testing.

Another useful on-line service that is offered in Germany¹⁸ (by the BAUA government agency) and in UK¹⁹ (by the Institute of Acoustics) is a directory of noise control products. WorkSafe WA used to have such a directory that also included companies that offered workplace training services and sold hearing protectors and signs. However it was decided to cease this due to concerns about perceptions that it was advertising particular products and unfortunately no other body has taken up this role.

Proposal 7: Initiate a Medicare rebate for hearing assessments. Facilitate the setting up of an on-line directory of noise control products and services.

Another much needed service is an independent NATA certified facility for assessing the performance of personal hearing protectors (PHPs). As well a consolidated listing of the attenuation of PHPs making it easier for people who coordinate hearing conservation programs to find suitable PHPs for their workers. National Acoustics Laboratory used to provide the service for performance testing and publish the consolidated results of their

testing. However National Acoustics Laboratory no longer undertakes the testing and it is some considerable time since a consolidated listing has been provided. . The New Zealand Department of Labour has an on-line database²⁰ but this does not cover all of the PHPs available in Australia.

Proposal 8: Encourage NATA accredited testing service for PHPs and provide an on-line database of results.

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

Some recommendations for further research have been noted above.

Over the years WorkSafe WA has developed some excellent information material on noise and noise control. This can be found on their website at:

http://www.commerce.wa.gov.au/WorkSafe/Content/Safety_Topics/Noise/index.htm

In particular they have a *Code of Practice for Control of Noise in the Entertainment Industry*²¹. Similar information is not readily available from other State or Federal agencies. For comparison the UK HSE has a particularly comprehensive website on this topic at: <http://www.soundadvice.info/>

Proposal 9: Encourage Safe Work Australia to develop national model guidance material in control of noise for the Entertainment Industry.

An excellent resource to assist companies in their noise management programs is the *Control Guide - Management of Noise at Work*²². Although produced by the NOHSC (now Safe Work Australia) way back in 1991, it still contains much useful guidance, but is in need of an update.

The NOHSC also used to have a very useful on-line database of case studies on control of hazards, many of which related to noise. Somehow in the change of location and change of organization name (and hence websites) this appears to have been lost.

Proposal 10: Encourage Safe Work Australia to revise its Control Guide and reinstate and expand its database of noise control case studies.

It is of concern that there is not much expertise in occupational noise left in government departments, nor any in Safe Work Australia, to help guide any new initiatives. Only WA and Queensland have an occupational noise specialist (one each) and both these are getting close to retirement.

Proposal 11: Encourage State and Federal Government departments and Safe Work Australia to recruit occupational noise specialists to help implement the interventions needed to prevent NIHL.

There are several other initiatives where Commonwealth action could help in the fight against NIHL. These include tax incentives for noise control (like the scheme in Singapore²³), labelling of quiet plant (as in the German Blue Angel scheme²⁴) and a database of typical noise exposures (as in Switzerland²⁵).

Proposal 12: Suggest that Safe Work Australia review these schemes for possible intervention initiatives when they have the results of their Getting Heard project.

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