

## Inquiry into Hearing Health in Australia

### Submission from Safe Work Australia: Work-related Hearing Loss

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

Exposure to hazardous levels of occupational noise is an important contributor to hearing loss in Australia. Occupational ototoxins (which include many solvents, fuels, metals, fertilisers, herbicides and pharmaceuticals) can also increase the risk of hearing loss to exposed workers. However, there is little information available on how many workers in Australia are exposed to either noise or ototoxins. This is due partly to the substantial costs and difficulties associated with obtaining representative exposure.

Each year there are on average 3400 successful workers' compensation claims for occupational noise induced hearing loss (ONIHL) at an annual direct cost of \$41 million in workers' compensation payments. However, because ONIHL is typically a long latency condition, workers' compensation claims are complicated by difficulties in determining whether hearing loss is work-related or due to age or non-occupational noise exposure. Therefore, workers' compensation figures underestimate the incidence of ONIHL in Australia. Based on peer-reviewed international studies of the burden of ONIHL (Concha-Barrientos et al. 2004; Dobie 2008; Nelson et al. 2005), 7–10% of adult-onset hearing loss in developed economies may be attributed to exposure to occupational noise. Therefore, using incidence estimates from the 2003 Australian Burden of Disease and Injury Study (Begg et al. 2007), there would have been about 11,600–16,500 new cases of ONIHL in working-aged males and females in Australia in 2003.

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

ONIHL is permanent and irreversible but entirely preventable. The *National Standard for Occupational Noise* [NOHSC:1007(2000)] (National Standard) was declared by the National Occupational Health and Safety Commission (NOHSC) in 1992 with the aim of significantly reducing the incidence and severity of ONIHL. The National Standard for exposure to occupational noise is an eight-hour equivalent continuous A-weighted sound pressure level ( $L_{Aeq,8h}$ ) of 85dB(A) and, for peak noise, a C-weighted peak sound pressure level ( $L_{C,peak}$ ) of 140dB(C).

All Occupational Health and Safety (OHS) authorities in Australia have adopted the National Standard for exposure to noise in the occupational environment as a maximum acceptable exposure level in their respective OHS regulations. The *National Code of Practice for Management and Protection of Hearing at Work – 3<sup>rd</sup> Edition* [NOHSC:2009(2004)] was declared in 1993 and provides practical guidance on how the National Standard can be achieved. Following subsequent reviews, the National Standard was re-declared in 2000 and the National Code in 2004.

In November 2008, the Australian Safety and Compensation Council agreed that further development of national material for ONIHL be considered as part of the harmonisation of OHS laws. Safe Work Australia is currently developing model regulations relating to occupational noise.

As well, Safe Work Australia is undertaking ONIHL-related research. This research includes:

- the National Hazard Exposure Worker Surveillance 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. This information will enable identification of workers at risk of ONIHL, with the aim of reducing the incidence of ONIHL through better targeted OHS policy, enforcement and information/education campaigns

- a project to determine the personal and institutional factors that influence the control of hazardous noise exposure and the prevention of ONIHL. This project, entitled 'Getting heard: effective prevention of hazardous occupational noise', is funded by the Department of Health and Ageing under the Hearing Loss Prevention Program 2008–10. Outcomes from this project will provide the Office of Hearing Services and other OHS 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.

## References

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Concha-Barrientos, M., D. Campbell-Lendrum and K. Steenland (2004) 'Occupational noise: Assessing the burden of disease from work-related hearing impairment at national and local levels' World Health Organisation, Geneva. WHO Environmental Burden of Disease Series, No. 9.

Dobie, R. A. (2008) 'The burdens of age-related and occupational noise-induced hearing loss in the United States'. *Ear and Hearing* 29(4): 565-577.

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