Relative contributions of aging and noise to the overall societal burden of adult hearing loss

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Noise is certainly the most important preventable cause of hearing loss in developed countries, and perhaps in the world as a whole, but population models suggest that its contribution to the total burden of hearing loss in adults is much smaller than that of aging (Nelson et al. 2005; Dobie 2008). The burden attributable to occupational noise is felt most in middle-aged men, as age-related threshold shifts are added to noise-induced shifts from earlier exposures. Because of increasing lifespans and industrial job migration, this relative burden is probably declining in developed countries. It may be growing in developing countries. At least in the USA, non-occupational noise, especially shooting, may be as important as occupational noise. Reduction or elimination of very high-level unprotected exposures would reduce societal hearing loss burden far more than reductions of current exposure limits (typically 85 dBA for an 8-hour day).

Dobie RA (2008). The burdens of age-related and occupational noise-induced hearing loss in the United States. Ear Hear (in press).

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