Hearing loss is the most prevalent disability affecting mankind. It is under-reported, under-diagnosed and generally underrated by society. Whilst a large proportion of the estimated 360 million people with disabling hearing loss live in low- and middle-income countries, it still represents a significant issue in New Zealand, and is likely to become more so. In high- and middle-income countries worldwide, adult-onset hearing loss is projected to move into the top ten causes of burden of disease by 2030, ahead of HIV/AIDS and diabetes according to World Health Organization estimates.  

In their paper in this issue of the Journal, Exeter et al present an estimate of the projected number of New Zealanders with hearing loss over the next 50 years using survey information stratified for age and then applied to future population projections. As our population progressively ages, it is expected that a much higher proportion of it will experience hearing loss. The principal survey was conducted via telephone and asked a simple yes/no question about the presence or absence of hearing loss, so there is certainly more detailed information required to get a clearer picture. Their data probably underestimate the prevalence of hearing loss, as people with slowly progressive, mild, or even moderate, hearing loss often fail to recognise their activity limitations and participation restrictions. The authors of the paper then estimate the projected additional numbers of otolaryngologists and audiologists that might be required, based on current levels of these practitioners in New Zealand and the projected increase in the population of people with hearing loss. 

The authors’ predictions of the increase in the number of New Zealanders with hearing impairment is equivalent to growth of around 15.7% per decade over the 50 years to 2061—a value similar to growth estimates of 15.1% per decade for the US for the 25 years to 2034, and 14% per decade for the UK for the 25 years to 2031 attributed to the Medical Research Council. 

At present, approximately one-third of the population over 65 years are affected by disabling hearing loss. Exeter et al show that the increasing prevalence of hearing loss in those aged over 70 years and changes in population distribution will result in a three-fold increase in the numbers of individuals with hearing loss in that age group by 2061. Hearing loss is a major issue in the elderly, and is associated with depression, social isolation, and cognitive decline. Lin et al found significantly increased cognitive decline over a 6-year period in rest home residents in their seventies in a cohort with hearing loss, in comparison to a cohort without. Further research is required to determine the basis of this relationship (ie, do they have a common cause, or does auditory deprivation directly or indirectly lead to cognitive decline?), and whether auditory rehabilitation can arrest this decline in the long term. Recent evidence suggests that treating hearing loss may reduce the burden associated with cognitive decline and reduced quality of life.  

If we can increase the proportion of people with hearing impairment that receive appropriate rehabilitation—either by the use of hearing aids, assistive listening devices, or appropriate communication strategies—then this predicted burden of hearing loss may be effectively reduced. 

We like to think that technology will solve our problems in the future. While advances in the field of cochlear physiology bring the
promise of metabolic protection against hearing loss from noise or ototoxic drugs, or even the restoration of inner ear function, it is still likely to be some time before these can be applied clinically. Advances in the technology surrounding hearing aids and cochlear implants have certainly improved the quality of life of people with hearing loss. While all of these advances are exciting, it is important to remember that technology does not provide the whole solution to managing the effects of hearing loss—a number of other rehabilitation interventions provided by audiologists, such as group or individual communication programmes, have been shown to be effective in improving quality of life, and reducing the activity limitation and participation restriction effects of hearing impairment. Audiologists work side by side with people with hearing impairment to navigate this process.

In addition to affecting workloads of audiologists and otolaryngologists, the growth in prevalence of hearing impairment may present challenges to the general medical community, where hearing loss is not particularly well understood. For example, we would suspect that relatively few general practitioners have a good working knowledge of the rehabilitation approaches suitable for different degrees of hearing loss.

Exeter et al, highlight a number of important issues in their paper, and make a case for more detailed research which we strongly support. More information is required for Māori and Pacific Island people across all age ranges, and more detailed information regarding severity of hearing loss in the population is required to get a clearer picture. Further research is also needed to examine which communication strategies and rehabilitation options are currently taken up by individuals with hearing impairment, and which of these provide the best outcomes, as this will have large implications on future service delivery. Better management of hearing loss has the potential to significantly improve the quality of life of New Zealanders, now and into the future.

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