



Commentary

A call to action for the inclusion of ENT/Audiology services in the public health approach to addressing non-communicable diseases in the Pacific Islands



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1. Introduction

According to the World Health Organization (WHO), non-communicable diseases (NCDs) are the single largest cause of premature mortality in the Pacific Islands [1]. A major strategy among Pacific nations is the implementation of the WHO Package of Essential Non-communicable Disease Interventions for Primary Health Care in Low-Resource Settings [2]. Cardiovascular diseases, diabetes, and cancers are the major NCDs that may be prevented or managed through modifications in health behaviours such as tobacco use, unhealthy diets, physical inactivity, and the harmful use of alcohol. The Sustainable Development Agenda offers a platform and a mandate to address NCDs, as well as any associated chronic disabilities which adversely impact on quality of life.

Permanent hearing impairment may be described as the invisible chronic disability associated with NCDs [3–5]. The development of hearing loss is gradual, and initial hearing difficulties may be attributed to other causes by caregivers, such as lack of attention or poor concentration. Improvements in public health education and inclusion of routine ear/hearing health assessments in the care plan of people living with NCDs should reduce the burden of hearing disability in this population. Auditory rehabilitation services for people living with both NCDs and a hearing disorder should positively contribute to their quality of life, thus further reducing the burden of disability.

Ear and hearing health specialists (i.e., Ear, nose and throat (ENT) Consultants and audiologists) are limited in the Pacific Islands [6], even though this region has among the highest global rates of ear disease and

hearing loss [7]. A significant proportion of cases of hearing loss are avoidable through public health measures, and attention is usually prioritized for the prevention of permanent hearing loss among children through routine childhood immunizations [8]. This commentary argues that a public health approach to reducing permanent hearing impairment should similarly be adopted for adults, specifically through the inclusion of clinical and public health ENT/Audiology services within the existing strategic framework aimed at reducing the burden of NCDs in the Pacific Islands.

This approach aligns with the World Report on Hearing which was launched on the March 3, 2021. Although the report does not focus on NCDs among older adults per se, it certainly highlights the protective factor of healthy lifestyles to ensure optimal hearing across the life course. Using the Pacific Island context as an example, this commentary further contributes to the discussion on prevention/management of NCDs as an avoidable cause of hearing disability among older adults.

2. Public health ENT/Audiology promotion for individuals with NCDs

As stated previously, the provision of ear and hearing health services by specialised professionals is rare throughout the Pacific Islands. Public health promotion activities may therefore play an essential role in advocating for strategies that will reduce both NCDs and their complications, such as hearing loss [11]. The World Health Organization (WHO) World Hearing Day is an annual event (3rd March), and Pacific Island countries may use this platform to promote awareness of permanent

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hearing impairment as a consequence of diabetes, cardiovascular disease, and hypertension. World Hearing Day activities should also take the opportunity to reiterate well-known public health messages such as healthy diet and increased physical activity. The World Report on Hearing includes evidence for first- and second-hand tobacco smoke as causal agents of permanent hearing loss, and smoking cessation is always an important public health message to promote.

One of the announcements during the 2021 World Hearing Day celebrations in Samoa was the inclusion of ear/hearing assessments in the next edition of the National Clinical Guidelines for People living with Diabetes. This announcement was made by the Chief Executive Officer of the Samoan Ministry of Health, and it was an occasion to create awareness of hearing loss as a complication of diabetes, as well as promote health lifestyles as the key ingredient for a healthy Samoa.

World Hearing Day activities may be specifically aimed at people living with NCDs who may be at risk of developing hearing loss. Ear and hearing health advocates may attend existing health education sessions for people living with NCDs, and highlight the devastation associated with loss of communication ability and/or listening enjoyment (e.g., music). A simple, yet powerful, health promotion activity involves asking participants to converse with another person while wearing protective earplugs: this activity simulates hearing loss, and gives participants an appreciation of living with hearing impairment. An experiential understanding of hearing loss may also motivate individuals to implement healthier behaviours.

Where ENT and audiologists are available, they may offer free ear and hearing examinations during World Hearing Day activities. For Pacific Islands countries where no specialists are available, alternative health professionals (e.g., nurses) may perform a basic ear examination and enquire if there are any hearing concerns. If required, referral for any medical interventions may be advised based on the resources available in the country. Even if formal audiometry assessment is unavailable, communication strategies to improve listening ability may always be recommended (i.e., reducing background noise where possible to improve speech clarity).

3. Clinical and rehabilitation ENT/Audiology services for individuals with NCDs

Where ENT and/or Audiology specialists are available, clinical and rehabilitation services should be routinely provided for people with NCDs. As recommended by the WHO World Report on Hearing, the ultimate goal is for ear/hearing health assessments to be integrated within the existing national public/primary healthcare frameworks. The Tupua Tamasese Meaole Hospital in Samoa currently assesses and monitors patients with NCDs during the Medical Specialist Clinics which are held every day from Monday to Friday. People living with Diabetes Mellitus Type 2, for example, are routinely referred for ophthalmology, podiatry, and renal assessments as part of their holistic care plan. Preparations are currently underway to include routine review by ENT/Audiology for all patients with NCDs, which should provide a baseline to monitor patient hearing status over time, as well as facilitate medical interventions in a timely manner.

Ear disease is a major public health issue for the Pacific Islands [7,8], and individuals with NCDs are at greater risk of developing chronic ear disease and additional hearing loss. Given that NCDs may cause a person to be immunocompromised, treatment and management of ear disease may be difficult, and an acute ear infection may develop into a potentially life-threatening complication (e.g., meningitis, mastoiditis, cholesteatoma). A study from India reported Chronic Suppurative Otitis Media among almost half of their diabetic patients with underlying permanent hearing loss [9]. Routine ENT/Audiology review for people living with NCDs will therefore benefit both ear health and hearing abilities.

Among middle-aged adults with NCDs, the early stages of development of permanent hearing loss are usually overlooked, and the hearing

difficulties are often attributed to other causes (i.e., lack of attention, tiredness). Routine ENT/Audiology review is therefore recommended regardless of any hearing concerns. An ear and hearing assessment is an opportunity for ENT/Audiologist professionals to discuss the impact of NCDs on hearing ability, and thereby support health messages already being provided by other specialists (i.e., Ophthalmology, Podiatry). Reiteration of the benefits of positive health behaviours from a variety of professionals may influence behaviour change, such as reduction/cessation of tobacco smoking.

4. The role of ENT/Audiology services for improved mental health among individual with NCDs

The WHO includes mental health as a significant NCD in Pacific Island countries that requires urgent attention. Although services for people with disabling mental health conditions are evolving in the Pacific Islands, implementation of initiatives is compromised by the stigma that may persist regarding mental health disorders. ENT/Audiology public health messages should positively contribute to current efforts regarding mental health.

Among older adults in particular, ENT/Audiology services should positively influence the socio-emotional well-being and mental health of individuals living with NCDs. As highlighted in the 2021 World Report on Hearing, people over 60 years of age may be experiencing age-related hearing loss, as well as the additional hearing deterioration due to NCDs, and this often leads to activity limitations, participation restriction, social withdrawal, and depression [10]. Review for these individuals would be beneficial as it would facilitate rehabilitation options (i.e., hearing aids), improve communication, and thereby positively contribute to socio-emotional well-being by reducing the distress caused by their hearing disability. There is also increasing evidence that rehabilitative audiology (i.e., provision of hearing aids and improved hearing ability) is associated with reducing/preventing the onset and progression of dementia [10]. Including ENT/Audiology public health messages in promotion activities for mental health will not only benefit with NCDs, but also the entire population.

5. Conclusion

Although ENT/Audiology services may be scarce in the Pacific Islands, ear and hearing health advocates should support current initiatives to prevent and manage the impact of NCDs in the region. This aligns with the public health approach that is promoted by the 2021 WHO World Report on Hearing. Improved public awareness of permanent hearing impairment as a complication of NCDs should positively contribute to improvements in public hearing health and the reduction of avoidable hearing loss. Improved clinical and rehabilitation ENT/Audiology services for people with NCDs should be implemented where possible. Especially among older adults, auditory rehabilitation should improve quality of life and limit progression of mental health disorders.

Brief messages

- Non-Communicable Diseases have been declared a public health crisis in the Pacific Islands
- A public health approach to improvements in ear and hearing health for adults should also positively contribute to current initiatives aimed at reducing Non-Communicable Diseases

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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