

earing is a key component of human intrinsic capacity and the sense most relied on for communication and to engage with others. Any decline in hearing capacity at any point during the life course, if not addressed timely, can adversely affect day-to-day functioning (2, 3). Hearing throughout a person's life can be visualized in the form of a hearing trajectory, the course of which determines our hearing capacity at any point in time. An individual's hearing trajectory depends on the baseline capacity at birth and the multiple risk or preventive factors encountered during the life course (4, 5).

Hearing loss in infants and young children can inhibit access to spoken language. Children with permanent hearing loss are at risk of poor psychosocial functioning, including emotional and behavioral difficulties and academic success can be affected when compared to hearing children (6). Adolescents with permanent hearing loss face challenges not experienced by their hearing peers (7). Their social and emotional development may be adversely influenced by difficulties in communication, cognitive and physical impairments that are risk factors for emotional and behavioral difficulties.

Hard of hearing adolescents are often faced with the additional challenge of managing these adaptations in a hearing world, where communication and access to information, especially about their social world, are incomplete at best and nonexistent at worst (7). Later in the life course of an individual, hearing loss can produce social isolation and is associated with an increased risk of dementia, falls, and other deleterious conditions in people older than 60 years. Currently, hearing loss is the third leading cause of years lived with disability for all ages and is the leading cause for people older than 70 years (8). At any point of the life course the use of technology and rehabilitation play an important role for well-being and the ability to cope with the hearing loss.

The main risk factors corelated to hearing loss are those linked to the behavior of the adolescents, including listening to loud music, and using lawn and power tools with no hearing protection. The findings reveal that not only is teenage hearing loss is on the rise, but also that teens are aware of the risks, yet still choose not to protect their hearing. It is estimated that 1 in 5 teenagers exhibit at

<sup>1</sup>Pan American Health Organization. Building health throughout the life course. Concepts, implications, and application in public health. Washington, D.C.; PAHO; 2020. Available from: https://iris.paho.org/handle/10665.2/53409

least a slight hearing loss, due in large part to the ever-present earbuds or headphones attached to smartphones and portable music players, which cause frequent exposure to loud, high-intensity leisure noise levels that ultimately affect the hearing threshold (10). Across the life course, the negative factors that induce or increase hearing loss are related to noise levels. Negative factors in this case are conditional on volume, character, duration, and individual sus ceptibility.

This brief aims to inform and contribute to the call from the World Health Organization to bring together health authorities and policymakers in the need to prevent hearing loss due to sustained exposure to excess noise levels, by developing and promoting standards for safe listening at all life stages. A recommended tool developed by WHO for young people to assess and monitor their hearing is the hearWHO application, based on validated digits-in-noise technology. This free software application can allow users to regularly screen their hearing and determine if they need to further consult a health professional. This tool is especially recommended for those who commonly listen to loud music over personal audio devices. It can also be used by health workers to screen people in the community for hearing loss and refer them for diagnostic testing, if needed.

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