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Original Investigation

Prevalence of Hearing Loss and Differences by Demographic Characteristics Among US Adults

Data From the National Health and Nutrition Examination Survey, 1999-2004

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Background Hearing loss affects health and quality of life. The prevalence of hearing loss may be growing because of an aging population and increasing noise exposure. However, accurate national estimates of hearing loss prevalence based on recent objective criteria are lacking.

Methods We determined hearing loss prevalence among US adults and evaluated differences by demographic characteristics and known risk factors for hearing loss (smoking, noise exposure, and cardiovascular risks). A national cross-sectional survey with audiometric testing was performed. Participants were 5742 US adults aged 20 to 69 years who participated in the audiometric component of the National Health and Nutrition Examination Survey 1999-2004. The main outcome measure was 25-dB or higher hearing loss at speech frequencies (0.5, 1, 2, and 4 kHz) and at high frequencies (3, 4, and 6 kHz).

Results In 2003-2004, 16.1% of US adults (29 million Americans) had speech-frequency hearing loss. In the youngest age group (20-29 years), 8.5% exhibited hearing loss, and the prevalence seems to be growing among this age group. Odds of hearing loss were 5.5-fold higher in men vs. women and 70% lower in black subjects vs. white subjects. Increases in hearing loss prevalence occurred earlier among participants with smoking, noise exposure, and cardiovascular risks.

Conclusions Hearing loss is more prevalent among US adults than previously reported. The prevalence of US hearing loss differs across racial/ethnic groups, and our data demonstrate associations with risk factors identified in prior smaller-cohort studies. Our findings also suggest that hearing loss prevention (through modifiable risk factor reduction) and screening should begin in young adulthood.

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