## Affordability of hearing aids for low-income hearing-help seekers

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**Objectives:** To apply principles of healthcare economics to determine the affordability of hearing aids for low-income hearing-help seekers.

**Background:** Untreated sensorineural hearing loss (SNHL) is associated with reduced healthrelated quality of life, social isolation, depression, and brain atrophy, particularly in the temporal lobe. Only one out of five with (SNHL) seeks assistance for communication problems through amplification. Although more than half of the states in the US provide some hearing healthcare coverage for adults, Oklahoma does not provide hearing aids through Medicaid or Medicare leaving the elderly and the disadvantaged to pay out-of-pocket for amplification and associated services.

**Methods:** The catastrophic and impoverishment health economic analyses were applied to incomes reported by 386 applicants to a community hearing aid bank in the state of Oklahoma over a three-year period. Income was adjusted by household size in the impoverishment approach.

**Results:** The median income of the sample was \$13,778 (IQR: \$9,645; \$19,107). Ten observations were removed in the impoverishment approach due to missing household data. Using the catastrophic approach, the hypothetical purchase of one advanced digital hearing aid at an average selling price of \$2,367.50 would not be affordable for most applicants to the hearing aid bank (99%, N=394). Most of the applicants were below the FPL (51%, N=201), another 11% would fall below for the year as a result of the hypothetical purchase. Affordability of hearing aids for this sample improved at price points lower than \$500.

**Conclusions:** Hearing aids remain unaffordable for many, but especially for those with low incomes. Hearing-aid uptake may improve for unserved and underserved populations if coverage were provided through state healthcare programs.