

# Hearing aids linked to fewer hospital and ER visits by older adults

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They cost thousands of dollars, and insurance almost never covers them. But hearing aids may hold the potential to cut older adults' visits to the hospital or emergency room, according to a new study.

That could mean lower costs in the long run, though more research is needed to see if this is true. The study arrives at a time when discussion about adding Medicare coverage for [hearing](#) aids is rising.

In the new paper in *JAMA Otolaryngology - Head & Neck Surgery*, a team from the University of Michigan reports what they found after examining data from 1,336 adults ages 65 to 85 who reported they had severe [hearing loss](#).

Strikingly, the researchers found that only 45 percent of those in the study actually use a hearing aid - despite having serious difficulty hearing. The rate is lower still among those with low incomes or less education, those who are African American or Hispanic, and those who live in Southern U.S.

After the researchers factored out those differences, they found that older adults who had a hearing aid were less likely to have gone to the hospital or [emergency room](#) in the last year. The difference was about two percentage points - not a major difference but large enough to be significant.

In addition, those who had been hospitalized and had a hearing aid had shorter stays than those who didn't have a hearing aid - averaging a half of a day less in the hospital.

On the other hand, those with hearing aids had a higher probability (by four percentage points) of having an office-based visit to a physician in the past year. They also had more such visits than those without hearing aids. Office-based visits are much less costly than emergency visits and hospital stays.

## **Impact despite lack of coverage**

The association of hearing aid use with lower use of costly types of care is especially striking given the lack of insurance coverage for the devices, the authors say. Hearing loss is one of the most common conditions among those over age 65.

"Traditional Medicare doesn't cover hearing aids at all, Medicare Advantage plans may cover them but often ask members to share the cost at a high level, and only about half of states offer some Medicaid coverage for the lowest-income patients," says Elham Mahmoudi, Ph.D., M.B.A., lead author of the new study and a health economist in the Department of Family Medicine at the U-M Medical School. "As the debate over expanding coverage continues, we hope this research and our future work will help inform the discussion."

The findings, based on self-reported accounts of a single year of health care use, don't show a cost savings overall for those who have invested in a hearing aid. That is unlikely to be visible in a cross-section of data such as this, Mahmoudi notes.

In fact, those with hearing aids reported spending about \$325 more out of their own pockets than those without, and said their [health care costs](#) were about \$1,125 more overall, compared with those who had hearing loss but no hearing aids. The total Medicare spending reported by both groups was about the same.

"Hearing aids cost an average of \$2,000 to \$7,000, so the fact that overall annual health care costs for those with hearing aids were not that much higher is an important point on its own," says Mahmoudi, who is a member of the U-M Institute for Healthcare Policy and Innovation.

The new study is based on self-reported health care use and costs, gathered through the Medicare Expenditure Panel Survey conducted by the federal Agency for Healthcare Research and Quality.

The data also included self-reported health conditions. The fact that people who had hearing aids were also less likely to have chronic illnesses such as diabetes and high blood pressure may have had something to do with these chances of using costlier services, according to an editorial commenting on the new paper. Or, this difference may indicate that hearing aids are allowing individuals to lead more active and healthy lives. But the data used in the study don't allow the researchers to tell that for sure.

## Next steps

To get a different and long-term look at the same issue, Mahmoudi and her colleagues are already studying five years' worth of private insurance data provided by IHPI, and anonymous data from patients treated at Michigan Medicine, U-M's academic medical center.

By looking at documented costs and health care use over multiple years, they hope to look at whether hearing aids might be cost-effective - in other words, whether the initial spending on a device actually pays off in lower costs from other forms of health care for the same patient.

Mahmoudi's own experience with her father's hearing loss, and the experience of two of her co-authors informed the study. Michael M. McKee, M.D., M.P.H. and Family Medicine chair Philip Zazove, M.D., also worked on the study; both have hearing loss and use cochlear implants.

Mahmoudi's father, who is in his 80s, didn't use a hearing aid to offset his hearing loss until Mahmoudi helped him navigate the process of getting a hearing exam, and getting the hearing aid fitted and adjusted. The expense, and the need for several office visits to adjust the device's settings, make getting a hearing aid a complex undertaking.

But, she notes, other studies have found hearing loss can cause adults to feel isolated, make them less likely to communicate effectively with family and health providers both in and out of the hospital, and is associated with worse overall health.

A 2016 National Academies of Science, Engineering and Medicine report looked at hearing-related technologies for adults of all ages, and concluded that changes to the coverage and regulation of hearing aids should be made.

The panel's recommendations helped lead to a 2017 law instructing the U.S. Food and Drug Administration to develop guidelines that will allow hearing aids to be sold over the counter. The FDA hearing aid website provides current information, but the agency now has less than three years to develop and launch guidelines. No matter what, over-the-counter hearing aids are likely to be best for those with mild to moderate hearing loss.

In the meantime, the U-M team will continue to study the impact of hearing aids on patients' live and health.

"This is the first study to show an association between hearing aid use and how older people use the [health](#) care system," says Mahmoudi. "If we look over a longer period, it may be that the cost of the hearing aid may be covered by the difference in use of [health care](#). That remains to be seen. But hearing loss is something that a lot of people experience, and it can be overcome in most cases. So cost effectiveness may be only one way to measure whether insurance coverage for [hearing aids](#) is the right thing to do."

**More information:** *JAMA Otolaryngology - Head & Neck Surgery*, [DOI: 10.1001/jamaoto.2018.0273](https://doi.org/10.1001/jamaoto.2018.0273)

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