

# Socioeconomic status not associated with access to cochlear implants

19 July 2010

Poor children with hearing loss appear to have equal access to cochlear implantation, but have more complications and worse compliance with follow-up regimens than children with higher socioeconomic status, according to a report in the July issue of *Archives of Otolaryngology-Head & Neck Surgery*.

"Cochlear implantation is a powerful tool for helping children with severe to profound sensorineural [hearing loss](#) gain the ability to hear, achieve age-appropriate reading skills and develop communication skills equal to those of their hearing counterparts," the authors write as background information in the article. "Owing to cochlear implant's well established societal cost-effectiveness, the U.S. Department of Health and Human Services included cochlear implantation as a point of emphasis of Healthy People 2010." However, recent studies estimate that only 55 percent of all candidates for cochlear [implants](#) age 1 to 6 receive them.

Medicaid status—since it is based on federal poverty levels—has been used as a proxy for [socioeconomic status](#). David T. Chang, Ph.D., of Case Western Reserve University School of Medicine, University Hospitals Case Medical Center, Cleveland, and colleagues and studied 133 pediatric patients who were referred for [cochlear implants](#) between 1996 and 2008, including 64 who were Medicaid-insured and 69 who were privately insured. Some have suggested that inadequate Medicaid reimbursement leading to negative financial pressures on hospitals has been a factor in limiting access to cochlear implants; however, since Medicaid coverage in Ohio is available for all eligible children and has full cochlear implant benefits, the authors were able to study the effects of socioeconomic status alone on cochlear implant access and outcomes.

There was no difference between the two groups in the odds of receiving an initial implantation, age

at referral to the cochlear implant program or age at implantation. However, the odds of complications following implantation were almost five-fold greater in Medicaid-insured children than privately insured children (10 complications in 51 Medicaid insured patients, or 19.6 percent, vs. three complications in 61 privately insured patients, or 4.9 percent). Major complications were also more common in the Medicaid population (six or 11.8 percent vs. two or 3.3 percent). In addition, patients on Medicaid missed substantially more follow-up appointments (35 percent vs. 23 percent) and more consecutive visits (1.9 vs. 1.1) than did those on private insurance.

"Given the excellent Medicaid coverage in Ohio, our results suggest that eliminating the definite financial obstacle that currently exists in other states across the nation for children from lower-income households would allow all eligible children, regardless of socioeconomic background, access to this powerful technology," the authors write. "However, despite equal access among Medicaid-insured and privately insured patients, there seem to be important differences between the groups postimplantation that influence outcome, namely, decreased follow-up compliance, increased incidence of minor and major complications and decreased rates of sequential bilateral implantation," or the implantation of a second device in the other ear.

"Taken together, these results indicate that centers should further investigate opportunities to minimize these downstream disparities," they conclude.

**More information:** Arch Otolaryngol Head Neck Surg. 2010;136[7]:648-657

Provided by JAMA and Archives Journals

APA citation: Socioeconomic status not associated with access to cochlear implants (2010, July 19) retrieved 15 June 2022 from <https://medicalxpress.com/news/2010-07-socioeconomic-status-access-cochlear-implants.html>

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