



**Testimony of the American Academy of Audiology Regarding Fiscal Year 2018
Appropriations for the National Institutes of Health**

**Subcommittee on Labor, Health and Human Services, Education and Related Agencies
Committee on Appropriations
United States
House of Representatives**

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Submitted by:

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On behalf of the American Academy of Audiology (the “Academy”) we write to express our strong support for an increase in appropriations for the National Institutes of Health (NIH). We appreciate the recent efforts that Congress has made to boost NIH funding. This commitment to advance the public health requires a sustained level of investment. We urge appropriators to maintain the momentum during the Fiscal Year (FY) 2018 appropriations process.

The Academy is the world's largest professional organization of, by, and for audiologists, representing over 12,000 members. The Academy promotes quality hearing and balance care by advancing the profession of audiology through leadership, advocacy, education, public awareness, and support of research. Because of the Academy’s strong support of research, especially the research funded by the NIH, we urge the Subcommittee to appropriate a FY 2018 funding increase of at least \$2 billion for NIH.

The NIH is the leading biomedical research entity in the world, investing more than \$30 billion in taxpayer dollars to achieve its mission to enhance health, lengthen life, and reduce illness and disability. NIH funded research supports nearly 50,000 competitive research grants and 300,000 scientists and research personnel at more than 2,500 universities, medical schools, and other research institutions across the nation. It is imperative that research funding for the NIH remain both predictable and sustainable. Inconsistencies in funding levels make it difficult for the NIH to make investments in new research. Appropriating a \$2 billion increase for NIH in FY 2018 would help to ensure that the NIH and its component institutes can sustain current research initiatives and continue to invest in fundamental research.

The Academy strongly supports the work of the National Institute on Deafness and other Communication Disorders (NIDCD). NIDCD is a world leader in hearing research, and increased funding is critical to support new and continued research initiatives. The NIDCD's sponsorship is important given the worldwide impact of hearing loss and communication disorders. The World Health Organization (WHO) estimates that 360 million people worldwide have disabling hearing loss and 32 million of these are children.¹ In the United States about 2 to 3 out of every 1,000 children are born with a detectable level of hearing loss in one or both ears.² Approximately 15 percent of American adults (37.5 million) aged 18 and over report some trouble hearing.³ Hearing loss may result from genetic causes, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, exposure to excessive noise, and aging.⁴ Unaddressed hearing loss poses an annual global cost of 750 billion international dollars. Interventions to prevent, identify and address hearing loss are cost-effective and can bring great benefit to individuals.⁵

The NIDCD conducts and supports research in the normal and disordered processes of hearing, balance, taste, smell, voice, speech, and language. It does this through a program of grants and contracts in basic, clinical, and translational research. NIDCD-supported research has made important contributions to the body of knowledge needed to help people with communication disorders and to advance our understanding of all aspects of human communication:

- As a result of NIH efforts, nearly all infants born in U.S. hospitals in 2010 were screened for hearing loss, up from as few as one-tenth of infants born in 1993, allowing them to get hearing aids or cochlear implants during their developmental years when they will be most helpful.⁶
- Due to the development of cochlear implants, which resulted in part from NIH-supported research, children with severe hearing loss and their families can regain the ability to perceive sounds and understand speech, saving them the costs of specialized education and therapy, with more than 38,000 devices implanted in American children.⁷ Studies have shown that early implantation saves society more than \$30,000 per child.⁸
- According to the FDA, approximately 324,000 cochlear implants have been implanted worldwide, in roughly 58,000 U.S. adults and 38,000 U.S. children.⁹ Studies have shown that screening and implantation before the age of 18 months allows more than 80 percent

¹ <http://www.who.int/mediacentre/factsheets/fs300/en/>

² Centers for Disease Control and Prevention (CDC). [Identifying infants with hearing loss - United States, 1999-2007](#). MMWR Morb Mortal Wkly Rep. 59(8): 220-223.

Vohr B. [Overview: infants and children with hearing loss—part I](#). Ment Retard Dev Disabil Res Rev. 2003;9:62–64.

³ Blackwell DL, Lucas JW, Clarke TC. [Summary health statistics for U.S. adults: National Health Interview Survey, 2012 \(PDF\)](#). National Center for Health Statistics. Vital Health Stat 10(260). 2014.

⁴ <http://www.who.int/mediacentre/factsheets/fs300/en/>

⁵ <http://www.who.int/mediacentre/factsheets/fs300/en/>

⁶ <http://www.nidcd.nih.gov/about/plans/congressional/Pages/NIDCD-Director-2015-Testimony-to-the-Senate-Subcommittee.aspx>

⁷ <http://www.nidcd.nih.gov/health/hearing/pages/coch.aspx>

⁸ Semenov YR, Yeh ST, Seshamani M, et al. Age-dependent cost-utility of pediatric cochlear implantation. *Ear Hear*. 34(4):402-412. doi:10.1097/AUD.0b013e3182772c66

⁹ <http://www.nidcd.nih.gov/health/hearing/pages/coch.aspx>

of children with hearing loss to join mainstream classes with their normal-hearing peers.¹⁰

- NIH-supported research has driven the development of hearing aids from the first electronic hearing devices invented in the 1950s to the sophisticated digital devices available today.

To continue to expand the biomedical knowledge base, the NIDCD helps scientists at all stages of their careers to participate in cutting-edge research. NIDCD-supported research has made a profound impact on the profession of audiology. Below are examples of specific NIDCD research opportunities that contribute directly to the practice of audiology and the expansion of the knowledge base in the hearing health sciences

- **NIDCD-Mentored Career Development Award for Postdoctorate AuD/PhD Audiologists:** This award supports comprehensive and rigorous postdoctoral research training experiences in the biomedical, behavioral, or clinical sciences of promising AuD/PhD audiologists who have the potential to become productive, independent investigators in scientific health-related research fields relevant to NIDCD's mission.
- **NIDCD Research Dissertation Fellowship for AuD Audiologists:** This fellowship program supports a comprehensive, rigorous biomedical research training, and dissertation research leading to a research doctorate (i.e., PhD) in the biomedical, behavioral, or clinical sciences.

In addition to supporting the research opportunities described above, the NIH is also a key stakeholder in the implementation of recommendations detailed in a 2016 report released by the National Academies of Sciences, Engineering, and Medicine (NASEM). The NASEM convened an expert committee to study the affordability and accessibility of hearing health care for adults in the United States. The final report entitled “Hearing Health Care for Adults: Priorities for Improving Access and Affordability,” recommends important institutional, technological, and regulatory changes that would enable consumers to find and fully use the appropriate, affordable, and high-quality services, technologies, and support they need. As noted, the NASEM specifically identifies the NIH as a strategic partner in the implementation of 5 out of the 12 report recommendations. Those recommendations include the following:

- **Recommendation 1:** Improve Population-Based Information on Hearing Loss and Hearing Health Care
- **Recommendation 2:** Develop and Promote Measures to Assess and Improve Quality of Hearing Health Care Services
- **Recommendation 8:** Improve the Compatibility and Interoperability of Hearing Technologies with Communications Systems and the Transparency of Hearing Aid Programming
- **Recommendation 10:** Evaluate and Implement Innovative Models of Hearing Health Care to Improve Access, Quality, and Affordability
- **Recommendation 11:** Improve Publicly Available Information on Hearing Health

¹⁰ Semenov YR, Yeh ST, Seshamani M, et al. Age-dependent cost-utility of pediatric cochlear implantation. *Ear Hear.* 34(4):402-412. doi:10.1097/AUD.0b013e3182772c66

The call to action is great for the NIH overall, the NIDCD, audiologists, and other stakeholders in the hearing care community to implement the key provisions of this report and improve affordability and accessibility of hearing care services for the aging population. A funding increase to support NIH research will be a first step to ensure that core tenets of these recommendations can be met.

The Academy appreciates this Subcommittee's continued support for NIH research. To maintain critical research opportunities at current levels and to allow the NIH to make future investments in biomedical research, specifically in the area of hearing health research, the Academy requests that the Subcommittee appropriate a \$2 billion increase for the NIH.