AMERICAN ACADEMY OF AUDIOLOGY

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2025

AUDIOLOGY TODAY

The magazine of, by, and for audiologists

The Future of Audiology

What It Means for Your Practice

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What You and They Need to Know

BUILDING A DIVERSIFIED PRACTICE
The Pros and Cons

SHIFTING THE EHDI LANDSCAPE
Diagnosis and Intervention

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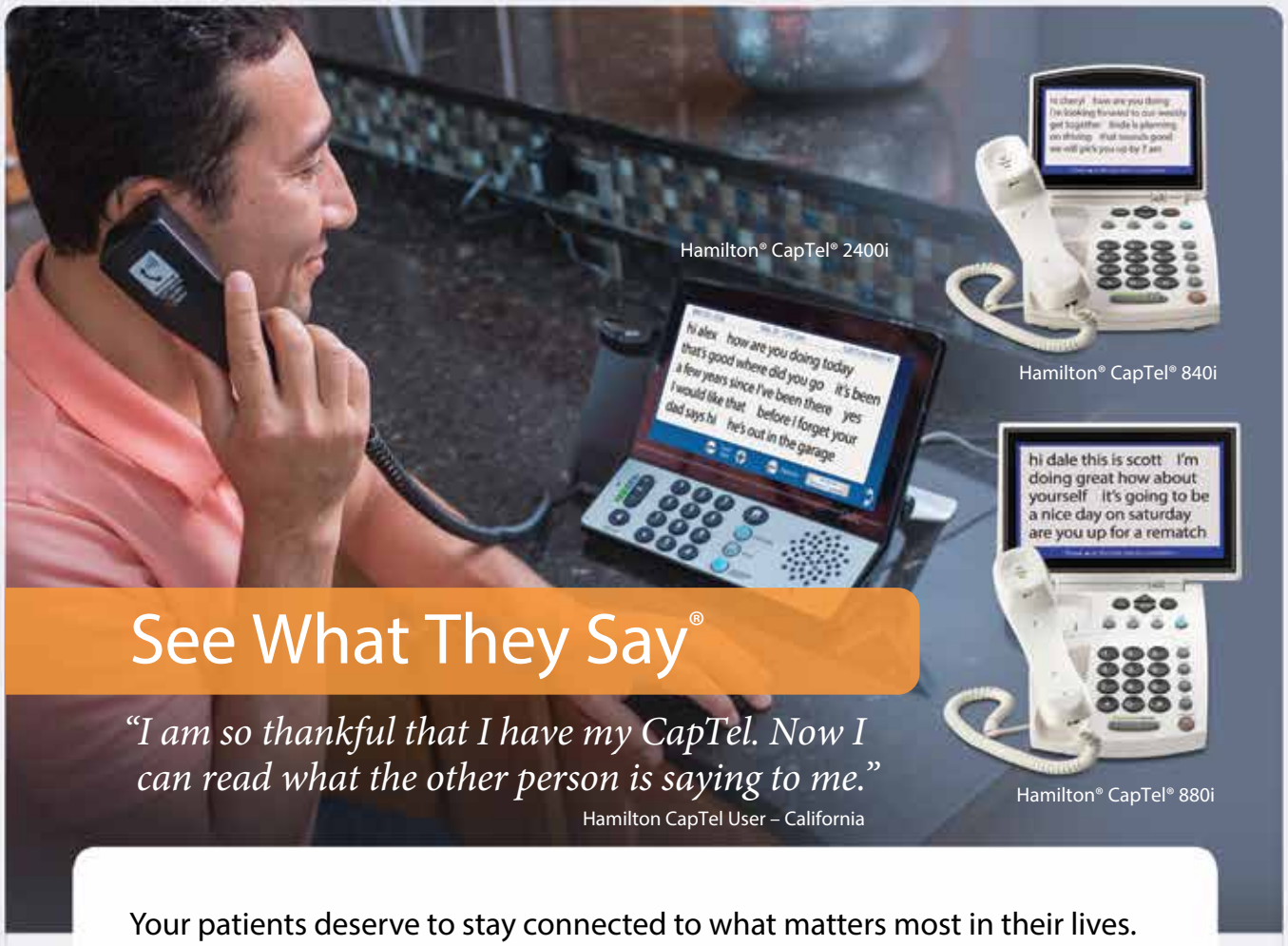

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Advocacy Update: 119th Congress and the New Administration
Thursday, March 27 | 9:00–9:30 am
Rooms 217–219

Advocacy 101: A Navigational Guide for Audiology Leaders
Thursday, March 27 | 12:30–1:00 pm
HearTECH Hub

Audiology Billing and Coding Workshop
Thursday, March 27 | 2:15–3:45 pm
The Great Hall BC, First Floor

State Policy Advocacy Network (SPAN)
Thursday, March 27 | 4:15–5:45 pm
Rooms 211–213

New Orleans Haunted and Voodoo PAC Tour
Thursday, March 27 | 7:00 pm

Transforming the AuD Curriculum to Support Audiology's Vision for the Future
Friday, March 28 8:00–9:00 am
Rooms 203–205

Cracking the Code: Unbundling Services and Elevating Audiology Practice
Friday, March 28 | 9:45–10:45 am | *The Great Hall BC, First Floor*

Can't attend AAA 2025+HearTECH Expo? There are still ways to be involved:

- **VOLUNTEER** for the Legislative and Regulatory Committee, Coding and Reimbursement Committee, or State Policy Advocacy Network. Contact mmoore@audiology.org for more information.
- **CONTRIBUTE** to the Academy's PAC*. Donations help the Academy support legislative activities and elevate its message in Washington, DC.
- **STAY INFORMED** by reading updates, action alerts, and news items from the Academy.

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*Evaluation of a Novel Product for the Removal of Impacted Cerumen, Douglas Fullington, MD; Jenny Song, MD; Antionette Gilles, CNA; Xiaowen Guo, MSN; Waley Hua, BS; Eric Anderson PhD; and Joseph Griffin PhD
**In Vitro Comparison of Three Earwax Removal Formulations for the Disintegration of Earwax, Janice Knebl, DO, Barbara Harty, RN, C. Eric Anderson, PhD, Dennis Dean, PhD, Joe Griffin, PhD

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Academy News

COVER ART
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EDITORIAL MISSION
The American Academy of Audiology publishes *Audiology Today* (*AT*) as a means of communicating information among its members about all aspects of audiology and related topics.

AT provides comprehensive reporting on topics relevant to audiology, including clinical activities and hearing research, current events, news items, professional issues, individual-institutional-organizational announcements, and other areas within the scope of practice of audiology.

Send article ideas, submissions, questions, and concerns to Erin C. Schafer, editor-in-chief, at dr.erinschafer@gmail.com.

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AUDIOLOGY TODAY

The American Academy of Audiology promotes quality hearing and balance care by advancing the profession of audiology through leadership, advocacy, education, public awareness, and support of research.

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What I've Gained by Giving Back

Volunteering for professional organizations has been incredibly rewarding throughout my career. People often ask me about my volunteer service and what motivates me to stay involved. My path to becoming president of the American Academy of Audiology began during my time as an AuD student. I first became engaged by joining the national board for the National Association of Future Doctors of Audiology (NAFDA). Serving on that board allowed me to build relationships with students from programs across the country and with professional advisors. This experience sparked a lasting desire to remain actively involved in the Academy and other professional organizations.

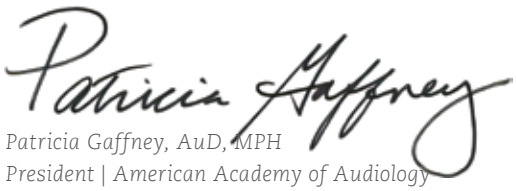
One of the primary benefits of volunteering has been the opportunity to network. My time on the NAFDA board created the foundation to my professional network that supported me throughout my entire career. Many of the colleagues I served with are still part of my professional life today. Over the years, I've served on various boards, committees, and task forces, each of which introduced me to new audiologists. These experiences continually expand my network, connecting me with professionals who have diverse roles, interests, and specialties within audiology. This network has provided me with opportunities to ask questions, learn specialized knowledge, and form lasting friendships across the country.

Another significant benefit of volunteering has been the chance to develop new skills and gain a deeper understanding of the audiology profession as a whole. Through my volunteer work, I've learned how to plan conferences, build websites, manage budgets and investment reports, create and evaluate Current Procedural Terminology codes, and advocate for audiology services. Additionally, I've gained invaluable interpersonal skills, such as understanding and working with different personalities, delegating tasks, leading committees, and listening openly to diverse opinions and perspectives.

It's important to acknowledge the time commitment involved in volunteering. Free time is precious, and volunteering often

requires sacrifices, such as spending evenings or lunch breaks on calls or completing committee work. Recognizing this, many organizations, including the Academy, have been assessing the time demands of volunteer roles. While some positions, such as serving on a board of directors or chairing a conference, require significant time investments, others are short-term "micro-volunteer" opportunities that may last only a couple weeks, such as reviewing abstracts.

I wholeheartedly recommend volunteering with professional organizations, whether at the local, state, or national level. For students and early-career professionals, it's an invaluable way to learn, network, and help shape the future of audiology. My volunteer experiences have been overwhelmingly positive, and the Academy offers numerous opportunities to contribute to areas you're passionate about or wish to explore further. Volunteering not only enriches your professional life but also strengthens the audiology community as a whole.



Patricia Gaffney, AuD, MPH
President | American Academy of Audiology

Interested in volunteering with the Academy? Scan the QR code to learn more.

Retune Your Passion for Audiology

It shouldn't come as a surprise that audiologists have a strong appreciation for music, demonstrated either by playing an instrument, singing, or just listening. It's fitting, therefore, that this year's AAA 2025+HearTECH Expo takes place in New Orleans, the birthplace of jazz. Much like jazz, audiology thrives on innovation, adaptability, and collaboration. This conference is your opportunity to embrace the same spirit of creativity that musicians embody—and bring it back to your practice.

The landscape of hearing and balance health care is changing rapidly, and audiologists are at the forefront of this transformation. To stay ahead, the Academy is committed to exploring innovative ways to deliver care. At AAA 2025, you'll find a variety of sessions designed to inspire fresh ideas. From leveraging new technologies and modernized practice management strategies, to reimagining patient engagement, you'll leave with actionable insights that can reinvigorate your approach to patient care.

Have you ever wanted to learn more about professional development or strategies to avoid burnout? Curious about cutting-edge solutions for tinnitus management? What about networking events to connect with like-minded audiologists in a relaxed and welcoming environment? The conference is where you'll find answers and collaborate with colleagues on new ways to provide exceptional care.

Let's be honest: The daily demands of the audiology profession can sometimes leave you feeling stretched thin. Attending the conference offers a unique opportunity to reconnect with why you became an audiologist in the first place. Being surrounded by peers who share your passion for improving lives is an energizing experience. Investing in yourself is not a luxury—it's a necessity. AAA 2025 is an investment in your career, your knowledge, and your future.

Much like a jazz musician finding new harmony, you'll rediscover the joy of your profession at the conference. New Orleans jazz is a reminder that creativity and collaboration can lead to extraordinary results. One hallmark of early New Orleans jazz is *collective improvisation*, where multiple

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musicians simultaneously play variations of a melody. This rich and layered sound that blended genres and cultures created a unique musical form that continues to evolve to this day. The same is true for audiology. The more audiologists come together to share ideas and amplify expertise, the stronger the profession becomes, sending a powerful message: audiologists are united, innovative, and should be taken as seriously as any other profession that provides care for chronic diseases.

By attending AAA 2025, you're stepping into a space where innovation takes center stage. You'll leave not just with new knowledge, but with the renewed energy to make a meaningful difference in your patients' lives, and strategies for enhancing the role of the profession.

So, pack your bags, tune into the rhythm of progress, and join us in New Orleans. Your patients, your career, and your profession deserve it. Don't let this opportunity pass you by—because the best innovations happen when audiologists gather, learn, and play together. Also, if you do like to sing, join the Academy chorus and sing the national anthem to kick off the conference. No experience necessary.

I hope to see you in New Orleans.

Red Beans and Rice-ly Yours,

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Patrick E Gallagher, MBA
Executive Director | American Academy of Audiology

AUDIOLOGY ADVOCATE

The Critical Role of Key Congressional Committees in Shaping Audiology and Health-Care Policy

The U.S. Congress, through its various committees, plays a vital role in shaping health-care policy, including issues involving audiology. Among the most influential are the Senate Health, Education, Labor, and Pensions (HELP) Committee, Senate Finance Committee, House Energy and Commerce Committee, and House Ways and Means Committee. These committees directly influence health-care legislation, funding, and regulations, significantly affecting audiologists, their patients, and the broader health-care system.

Senate Health, Education, Labor, and Pensions (HELP) Committee

The Senate HELP Committee oversees a broad range of issues, including health care, education, labor, and pensions. Its jurisdiction includes public health programs, health-care access, medical research, and professional training.

For audiologists, the committee's work on licensing, workforce development, and patient care standards is particularly relevant. For instance, legislation related to funding for workforce development

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programs in rural areas could be a way to expand access to audiology. Additionally, the committee plays a role in shaping regulations for hearing-health technologies, including hearing aids.

The committee is led by Chair Bill Cassidy (R-LA). He has publicly stated that in the 119th Congress, he will make sure Medicare pays the same rate for care regardless of where it's provided.

Senate Finance Committee

The Senate Finance Committee is responsible for the funding and oversight of Medicare, Medicaid, and other public health programs.

The committee's decisions on reimbursement rates for audiological services, coverage of hearing aids, and inclusion of hearing care in Medicare directly affect audiologists' practices and patients' access to care. For example, efforts to expand Medicare coverage for hearing aids fall under this committee's purview. The Academy will work diligently to ensure that any such policy changes would include audiologists receiving real compensation for their services, time, and fitting.

Chair Mike Crapo (R-ID) leads this committee and is a cancer survivor who has stated he is committed to affordable and accessible health care, but he may want to focus more on tax cuts in reconciliation legislation than health-care priorities.

House Energy and Commerce Committee

The House Energy and Commerce Committee has broad jurisdiction over public health, health-care delivery systems, and telecommunications, making it critical for audiology and health-care policy. This committee oversees the Food and Drug Administration (FDA), which regulates medical devices, including hearing aids and cochlear implants.

The Energy and Commerce Committee also tackles health-care innovation and research funding through agencies like the National Institutes of Health (NIH). Research funding for hearing loss prevention, treatment, and technology advancements often originates here.

Chair Brett Guthrie (R-KY) leads the committee, and his stated priorities for health care are focusing on driving down the cost of care, providing price transparency to consumers and businesses, supporting innovation, and, most importantly, working to help restore public trust in public health.

Guthrie also wants to examine the Medicare and Medicaid programs to ensure they are working efficiently and better serving the individuals they were originally designed to assist.

House Ways and Means Committee

The House Ways and Means Committee has oversight of tax policy, Medicare, and Social Security. The committee influences how Medicare policies are structured and how

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funds are allocated to health-care providers, including audiologists.

Medicare reimbursement policies for diagnostic and rehabilitative audiology services fall under this committee's jurisdiction. Their decisions on expanding Medicare to cover services like hearing aids or balance testing could profoundly impact the scope of practice and access to care for older Americans. Additionally, the committee plays a significant role in crafting tax incentives for medical professionals and facilities, which can indirectly benefit audiology practices.

Chair Jason Smith (R-MO) leads this committee, and he is committed to increasing access to health care. Furthermore, Smith plans to pursue pro-patient, pro-innovation policies that break down barriers to care and make health care more flexible and affordable.

Engaging Congressional Committees Is Critical

The breadth and scope of the federal policies make active engagement with these committees critical. Members can be involved through the Academy's Government Relations team and its advocacy efforts, and direct communication with members of Congress will also be essential at critical times. Audiologists, as health-care providers, must make their voices heard to ensure policies reflect the needs of their profession and the patients they serve. With the growing recognition of the importance of hearing health in overall well-being, these committees will continue to play a pivotal role in advancing audiology and health care for years to come.

AAA 2025+HEARTECH EXPO CONFERENCE PREVIEW

Nadene Cherry on the Importance of Giving Yourself Permission to Pause

American Academy of Audiology President Patricia Gaffney, AuD, MPH, spoke with Nadene Cherry, the AAA 2025+HearTECH Expo keynote speaker, about the impact of meditation on her life, her connection to audiology, and her upcoming speech in New Orleans. This interview has been edited for brevity and clarity.

Patricia Gaffney (PG): Tell us a little bit about your background.

Nadene Cherry (NC): My background is in enterprise technology sales, corporate America, hustling hard. About four years into the job, I had one of those moments that knocks you on the ground and you ask, "Life, is this what's it all about?" That's when my mom was diagnosed with breast cancer. It was the big wake-up call for me that I wanted to live life more presently, with more intention, and that I was missing out on so much of my life, the connections with people...because I was so caught up in my own world at the time, focused on business.

That's when meditation fell in my lap—this opportunity to connect with life with more presence, fully participate in all parts of the experience, not just at work. I not only started to feel better in my body and to connect more deeply in relationships with other people, but I noticed that my performance at work doubled, which was the wildest side effect of all. That was a really interesting occurrence because it was 2008, during an economic recession. So, when everyone was losing money, my business doubled. And I knew it was because I started this practice of meditation.

My leaders came to me and said, "What's up with you, girl? How is this happening?" I'm like, "I'm just sitting in silence." They said, "Okay, weirdo, just keep going." So, I did. Things continued to go up. I could

Nadene Cherry will give the keynote speech during the **Opening General Session** on **Thursday, March 27** at **9:45 am**. For more information about Nadene and the conference, go to **AAAconference.com**.

tell because I was more present and more engaged with my clients. I was able to solve their problems calmly and to come up with new solutions that I wouldn't have otherwise because of this new level of presence.

PG: I know that you have a personal connection to audiology. Can you tell us about that?

NC: My father-in-law is an audiologist, a great one at that, and ran a practice for many years. Over the years, I've seen firsthand the tremendous positive effects of helping people hear better. Audiologists help people fully participate in life. That's exactly what I'm helping people do through mindfulness and meditation. I see audiology and mindfulness as two doors to the same room of helping people fully participate in life, feel better, live better.

PG: You'll be talking to our audiologists about how to encourage people to give themselves permission to pause and achieve inner peace without sacrificing outer performance. Why is it so hard for people to do that?

NC: Most people think that to perform your best, you need to simply do more and work harder and go for longer hours. This is reinforced by the world we live in, where the average person owns 13 devices and feels the need to be online and available 24/7, and any white space in their calendar that's open is available for the taking—leaving very little time for what I call the most important meeting you'll have all day, the one with yourself. Pause feels so hard for so many people, but I would say it is the most important thing.

PG: Many people feel like they're too busy to pause at work, even if they give themselves that permission. What would you say to them?

NC: I would say, OK. You believe that you're too busy to pause. But at what cost? A body that's pushed beyond its limits of healthy stress levels to physical pain or illness? A mind that's overflowing with anxious, self-critical thoughts, leaving zero room for new ideas and creativity? Or is the cost a heart that has really deep interests and passions, this authentic voice without a single moment to be expressed? I would invite the person who's too busy to pause to really look inward at the quality of their mind and their body and heart and really turn toward what needs attention.

PG: I am not that meditation person when you think of traditional meditation. I think about the session that you led that I attended, and it was just fantastic. It has stuck with me since then. I'm so excited that everybody else is going to get to experience this session with you. What else would you like to share with AAA 2025+HearTECH Expo attendees?

NC: The more you are exactly who you are, the more confident you are without trying

Nadene Cherry's Recommended Podcasts

- 10% Happier with Dan Harris
- Untangle
- The Science of Happiness with Dacher Keltner
- Metta Hour with Sharon Salzberg

to hide anything, and the better you do because you feel more confident. I spent 18 years, well, 10 of the 18, wearing a gray suit in a boardroom, being someone opposite of who I am, and my performance showed. It was when I started to embody who I truly am—dressing like myself, talking like myself—that people started connecting with me deeply, and it gave them permission to do the same.

I remember there was a really, really big opportunity—a meeting that my team and I had prepared for months. We were pitching to a new, really big client. The chief information officer (CIO) for the client was online with his whole team. This was our one shot. So, we joined the call, and I presented throughout the meeting. I saw the private chat on my team's side: "How do you think it's going?" "I don't know if they're into this." "Are they picking up what we're putting down?" You could cut the tension with a knife. I happened to show up wearing oversized glasses and really just being me. I wasn't sure how it was going. And then I received an instant message from the CIO himself, a private message and something I would have never expected him to say.

He said, "Those glasses are really cool." In that moment, I relaxed; everyone relaxed. It was just me being me that gave him permission to connect with me on a comfortable level that he wouldn't have otherwise. We went on to do a lot of business together after that. I think that there's really something about using a pause to reconnect with who you are in a world that's pulling you to do this or that, or eat that way, or wear that or whatever…It's a practice that I am cultivating over and over every single day and a reminder to stay grounded in who I am.

The more you can uncover that and allow it to blossom, you can use it as your competitive advantage. It will be the thing that the patients feel most connected to. It will create a bond, allow them to be supported and seen, and keep them coming back.

PG: To wrap up, what else can our attendees expect from your talk?

NC: I'm so excited. This talk is unlike any other talk that I've given in the past. There will be music. I'm going to be vulnerable in sharing a story that I've never told before about a time in my life when I felt the most insecure, stressed, and down. In addition, I'm going to give the audience three tools that completely changed my life and led me to more consistent inner peace and my best performance yet at work. I want the audience to leave feeling seen as a human being living in this hyper-connected, uber-busy world. I want the audience to feel empowered to take permission to pause when the world is saying to just power through. And I want the audience to leave feeling equipped with modern practices to use and share for lasting clarity.

March 5

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April 2

Academy Webinar on AudiologyOnline

An Overview of the Academy's Clinical Consensus Statement on Assessment of Vestibular Function in the Pediatric Population

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April 30

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Published on January 29

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Published on January 27

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The Air Force Accessions Center recently updated and expanded their waiver policy in regard to hearing loss.

Published on January 31

Researchers have identified key gene regulators that enable some animals to regenerate their hearing.

Published on January 25

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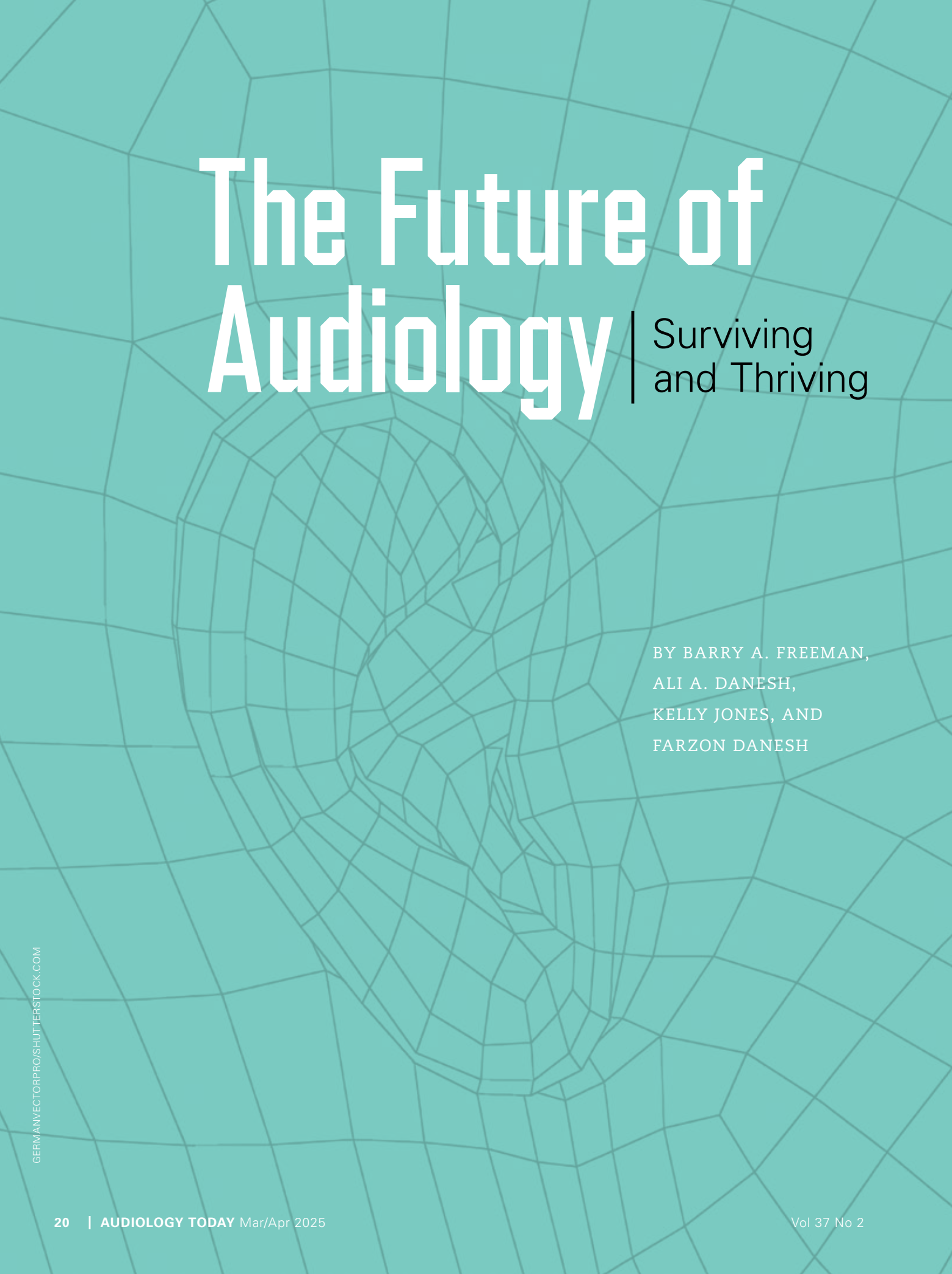
The Future of Audiology | Surviving and Thriving

BY BARRY A. FREEMAN, ALI A. DANESH, KELLY JONES, AND FARZON DANESH



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The future of audiology holds immense promise for improving hearing and balance care. Advancements in technology—coupled with a growing awareness of hearing loss, shifts in health-care delivery, and demographic change—are driving significant changes in the field. In a wide-ranging conversation, Barry A. Freeman talks with a recent graduate [Farzon Danesh], a clinician with three years of experience [Kelly Jones], and a mid-career practice owner [Ali A. Danesh] about the profession today and what it's likely to look like in the future.

Education and Preparation of Audiologists

Barry A. Freeman (BAF): In the early years of audiology, practitioners depended on physician referrals and often relied on physicians to interpret audiological test results and recommend treatment because audiologists were unable to fit and dispense hearing aids. As audiology evolved into an autonomous profession, we gained recognition for our specialized knowledge and skills. However, since audiologists began dispensing hearing aids under state licensing laws and professional ethical codes, there appears to have been a noticeable shift toward prioritizing product sales over diagnostic proficiency.

In my opinion, the future will demand that audiologists refocus on diagnostic capabilities. As consumers gain access to hearing aids and other products through various retail channels, manufacturers may continue to commoditize the profession by encouraging people to purchase their products without differentiating between distribution channels, whether in retail stores, big-box chains, online, or through professional offices. We have seen similar trends in other fields, such as optometry and veterinary medicine, where consumers seek professional expertise for diagnosis but purchase products elsewhere.

Given these changes, audiologists must receive academic and clinical

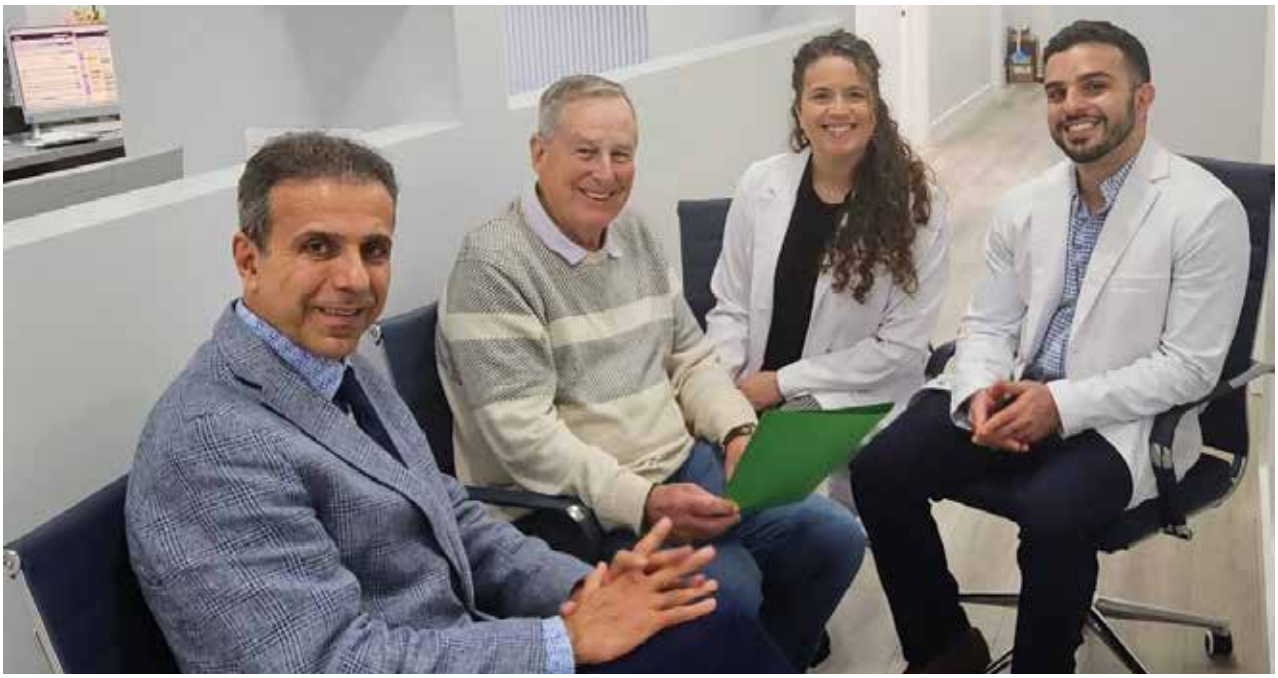
training that provides a strong foundation to adapt to these evolving demands. Emerging treatments will likely require coursework in genetics, pharmacology, and biochemistry, among other areas. In the future, it is possible that audiologists will play an expanded role in dispensing medications, interpreting medical scans, and offering or facilitating genetic counseling. However, these opportunities will be attainable only if audiologists have the appropriate academic foundation and clinical expertise to support them.

Farzon Danesh (FD): Future audiology practices may increasingly incorporate genetic profiles to inform decisions related to the prevention, diagnosis, and treatment of disorders. Audiologists will need to tailor management and treatment plans based on genetic information, predict the risk of developing hearing or balance disorders, address inherited conditions or comorbidities, and anticipate outcomes for patients of all ages. This shift in practice will likely result in professional education primarily delivered at scientific conferences rather than meetings hosted by product manufacturers.

Ali A. Danesh (AAD): Despite these changes, we all seem to agree that the hearing instrument, by itself, is not the sole solution. The impact of audiological rehabilitation—improving the quality of life and communication and enhancing speech perception in difficult listening situations—is only possible with a caring audiologist. I teach courses in genetics for several audiology academic programs. I envision a future where audiologists will be required to take this type of class and, perhaps, have more undergraduate classes in basic sciences. Audiologists possess a unique understanding of the physiology of the auditory and vestibular systems and, in the future, will be a major part of the health-care team managing and treating tinnitus, sensorineural hearing loss, and vestibular disorders through advancements in the areas of hair cell regeneration and gene therapy, combined with advancements in pharmacotherapy.

Kelly Jones (KJ): I agree. For example, in cases of sudden sensorineural hearing loss (SSNHL), we can assess the degree and etiology of the loss, but patients still need to be referred to a physician for medical management. While collaboration with physicians is essential in these cases, it adds an extra step and can potentially delay treatment. Reflecting on several recent cases where patients presented with SSNHL, I have noticed instances where patients assumed that our office could provide comprehensive care—evaluating, diagnosing, and prescribing treatment to start their recovery. In addition, some patients have mentioned delays in securing appointments with their primary care physicians or specialists, prompting them to seek help at urgent care facilities. Given these challenges, it seems logical, in the future and with proper education and training, for audiologists to dispense the necessary oral corticosteroids to improve patient outcomes and offer a quicker response for those with SSNHL.

FD: When considering the future education model for audiologists, I hope that there will be a broader use of integrated education



From left, Ali A. Danesh, Barry A. Freeman, Kelly Jones, and Farzon Danesh believe the future of audiology is "incredibly promising" and will be driven by technology developments along with a growing emphasis on hearing and balance care.

with students in other health-care professions. For example, we would take more courses or clinical rotations in interdisciplinary fields. This collaborative approach across professions may be a model for a value-based health-care system that could begin in professional training and be carried through into clinical practice. Some examples may include fall prevention programs with physical therapy, pharmacy, and geriatric medicine or anatomy and physiology classes with students from other health-care professions.

AAD: Speaking of which, currently, the majority of audiology programs are tied to schools of education, communication, and humanities, but not health care. Audiologists have more synergies with health-care providers, and, in the future, AuD students should graduate from schools with other health-care professionals, especially since hearing and balance disorders can be associated with many health conditions and almost every organ of the body. The current model is too restrictive administratively and academically. Future AuD applicants will search for programs and schools that are associated with other health-care and healing professions. After all, healing is not limited to devices, medications, or surgical interventions. A healer, like an audiologist, will have increasing responsibilities and capabilities associated with retraining the brain and generating neuroplastic modifications through proper stimulation and support.

BAF: Before we leave this topic, I just want to add another prediction. In the future,

doctors of audiology will be referred to as audiologic physicians, similar to other health-care providers, such as optometric physicians, podiatric physicians, and chiropractic physicians. These health-care providers diagnose, manage, and treat their patients, and they are trained in the art of healing with a focus on patient care. The *audiologic physician* is a possible next step for defining future audiologists.

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Technological Advancements

BAF: There is no doubt that advancements in diagnostic and treatment tools, hearing instruments, and implantable technology will continue to evolve, but these areas will likely expand the role of the audiologist in the future. About eight years ago, there was a predicted shift in consumer electronics from wearables to hearables, with the recognition that audiologists were best positioned to manage these changes due to their expertise in the auditory system (Hunn, 2020).

AAD: I totally agree. This remains a significant opportunity for audiologists, particularly as more microprocessors and sensors—such as accelerometers, gyroscopes, optical coherence tomography of the middle ear, heart rate sensors, global positioning systems, microphones, and environmental sensors—are integrated into devices. To stay ahead, audiologists will need to remain current on these technological advancements.

BAF: I suspect that we may also see a shift away from dependence on a single manufacturer for continuing education. There could be a return to a more unified approach to educational programs at meetings hosted by national and state organizations and even the Consumer Electronics Show. Moreover, the audiologists of the future will not be solely focused on the sale of products such as hearing aids. They must develop expertise in related fields such as genomics and personalized health care. As audiologists increasingly integrate genetic profiles into their practice, they will guide decisions about preventing,

diagnosing, and treating various disorders. This will involve selecting appropriate management or treatment plans, predicting the risk of hearing and balance disorders, addressing inherited conditions and comorbidities, and forecasting outcomes for adults and children. This information will be delivered at professional scientific meetings rather than through educational programs sponsored by product manufacturers.

KJ: Historically, health care in the United States, particularly in audiology, has focused on "sick care," where patients seek treatment when they are experiencing a hearing or balance issue. However, audiologists have a unique opportunity to shift this mindset to preventive care through ongoing patient education. By sharing our knowledge with prospective and existing patients, we can encourage a greater interest in preventive care. I have already noticed a change in the younger generation, with many adults in their 20s taking proactive steps, such as annual hearing tests, with a clear purpose of establishing a baseline for their hearing health. If the interest in hearing-health care ignites at a younger age, we will be able to follow these individuals throughout all stages of their lives. Other health-care professionals, including physicians, dentists, and optometrists, have already embraced this model. Moving forward, our goal should be to ensure that audiology services are prioritized earlier in a patient's lifetime, ideally before any issues arise. One goal should be having most people know the name of their audiologist at a young age and not for them to wait until they are in their 70s for their first visit.

FD: I want to move the conversation to artificial intelligence (AI), which is growing and expanding and may improve the efficiencies of clinical practice. For example, in our practice, we are looking at one AI tool that captures our conversations with patients, converts them into notes personalized to my writing style, and sends an auto-generated report and patient instructions to the patient's file, referral source, or the patient. Undoubtedly, AI and machine learning can revolutionize diagnosis, management, and treatment of our patients and will be used to enhance audiological assessment, fitting, and rehabilitation. In the future, I envision AI software in our audiometers, phones, tablets, or wearables to make suggestions to the audiologist about the best practice evaluation or management protocols. This could lead to better patient outcomes and more efficiencies in our practices.

KJ: I agree. Today, AI is incorporated within wearables, including hearing instruments, and I can envision an increased use of wearables to send real-time biometric or other information to health-care providers, including audiologists. Imagine if instruments could notify users if they were in a high-risk noise environment, similar to a noise dosimeter. That information would be shared with the audiologist who would inform the patient of the need for an evaluation or counseling to possibly prevent further hearing loss. The additional information provided to patients through wearables fit by audiologists is almost unlimited.

AAD: We recently expanded our hearing and balance services to reduce the dependence

on product sales and increase our patient services to our full scope of practice. In the process, we have been looking at many new AI tools to improve patient outcomes and audiologist efficiency. The future appears to be already here. We have been impressed, for example, by the role of AI in auditory as well as cognitive screening tools. Using AI, we can analyze data from vestibular tests, allowing for a more precise diagnosis and personalization of rehabilitation exercises through advanced tracking and adaptation capabilities. Some tools utilize virtual reality to create immersive training environments. We anticipate that these advancements will continue well into the future and may be coupled with remote hearing assessments, eye recording evaluations with smartphones, and the use of AI to manage patients with dizziness.

KJ: Due to our rapid practice growth, we employ assistants to improve our practice efficiencies and to ensure that the audiologists have time to meet the critical needs of our patients. Currently, college students can join our practice and receive training as receptionists. This position allows them to gain insight into daily business operations, develop organizational and time-management skills, and learn more about the profession and their future career. If a student expresses interest in taking on a more hands-on role within our practice, we encourage and support the necessary training to become an audiology assistant. This model has worked well in our practice because it helps us improve our efficiencies and provides the assistants with valuable experiences. In the future, we believe that there will be expanded educational and training opportunities to prepare audiology assistants.

BAF: I was pleased that the American Academy of Audiology now recognizes this need and has added a continuing education program for assistants at their conference. Several years ago, in anticipation of increased demand for hearing and balance services without a growth in the number of graduating audiologists, I was involved in starting one of the first online training programs for audiology assistants. The demand for audiology services will not decrease in the foreseeable future, so the need for audiology assistants will increase. However, I believe the number of individuals available for training will remain limited. Looking at alternatives, I am intrigued by the use of robots and collaborative robots (cobots) in health care; I predict that they will become an integral part of audiology practices in the future. These AudBots are not designed to replace the professional but to enhance and improve the efficiency of the practice by, for example, monitoring patients, performing routine tasks, cleaning workspaces, and assisting patient mobility, all while reducing personnel costs.

Demographic Shifts

BAF: Today, when we think about an aging population, we often focus on baby boomers. However, the future is more about longevity. Remarkably, two-thirds of all people who have ever lived past the age of 65 years are alive today (Dychtwald, 2022). Currently, there are 1 billion people over the age of 60 worldwide (80 million in the United States),

and this number is expected to grow to about 2.1 billion people by 2050 (World Health Organization, 2024). We are entering a longevity revolution, where people born today may live well past 100. Audiologists are not going to run out of patients in the future.

In addition, audiologists must be prepared to meet the needs of a growing pediatric population. Given the demographic shifts tied to longevity, many children and aging adults will have life-long needs that require ongoing audiological services. In the future, the audiology patient population will be diverse, and audiologists will follow these individuals throughout their lifespan, providing essential care at every stage of life.

AAD: To your point, the advancements in cochlear and vestibular implants, along with cortically-implanted hearing devices, will be available in the future and will require an AuD, who will have the advanced knowledge and expertise to provide a proper management plan following surgical intervention.

BAF: I understand that the 50-plus generation of U.S. consumers now control almost 80 percent of the net worth in this country and have the most disposable income (AARP Press Room, 2022). This is important because many of our products and services are not covered by third parties and must be paid for by discretionary income. It is this population that purchases the majority of health-care services and products. Hearing loss and fall-related problems are among the leading health-care problems of this aging population. The audiology community and academic programs must address preparation in the management of this aging population. Audiologists will need to meet the demands of these populations across their lifespans.

As audiologists increasingly integrate genetic profiles into their practice, they will guide decisions about preventing, diagnosing, and treating various disorders.

KJ: There is no doubt the future of audiology will be transformed by advancements in technology,

Tips for Great Financial Conversations

By Jessica Lovell

Financial conversations can often feel stressful and awkward due to the sensitive nature of discussing costs. To help, CareCredit has created a valuable resource for providers and their teams that offers helpful insights on how to make these conversations comfortable for patients and help them move forward with hearing health care recommendations. Here are some key tips mentioned in the *Tips and Scripts* resource.

1. **Utilize your practice website.**
   Financial conversations can begin even before a patient steps foot into a practice. By ensuring information regarding cost and payment options is readily available on the practice website, you can help patients feel more informed and prepared from the start.

2. **Set the tone during the initial phone conversation.**
   Patients are likely to inquire about costs during their first phone call with a practice. Take time to prepare your responses, as this is a key opportunity to help overcome cost concerns and encourage patients to schedule an appointment.

For many patients, uncertainty around finances is a significant barrier to care. That's why CareCredit has developed resources like *Tips and Scripts* to help providers navigate cost conversations with confidence.

Scan the QR code to download the article for additional tips, and an example of what a conversation like that could look like.

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Jessica Lovell is the vice president of client marketing, hearing at CareCredit.

with a strong emphasis on personalized and preventive health care. This will be coupled with the integration of tele-audiology and remote monitoring that will expand access to care, especially in underserved areas. For audiologists and our patients, I foresee a shift from product-centered care to a greater emphasis on patient-centered care and patient empowerment with the diagnostic, treatment, management, and preventive information audiologists provide.

Conclusion

The future of audiology is incredibly promising, driven by the rapid evolution of technology and a growing emphasis on hearing and balance health. As AI continues to transform diagnostic and treatment options, audiologists will be better equipped to meet the diverse needs of their patients. The changes in audiology will happen sooner or later, so we need to be prepared for the future.

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Kelly Jones, AuD, is an audiologist at Labyrinth Audiology, Boca Raton, Florida.

Farzon Danesh, AuD, is an audiologist at Labyrinth Audiology, Boca Raton, Florida.

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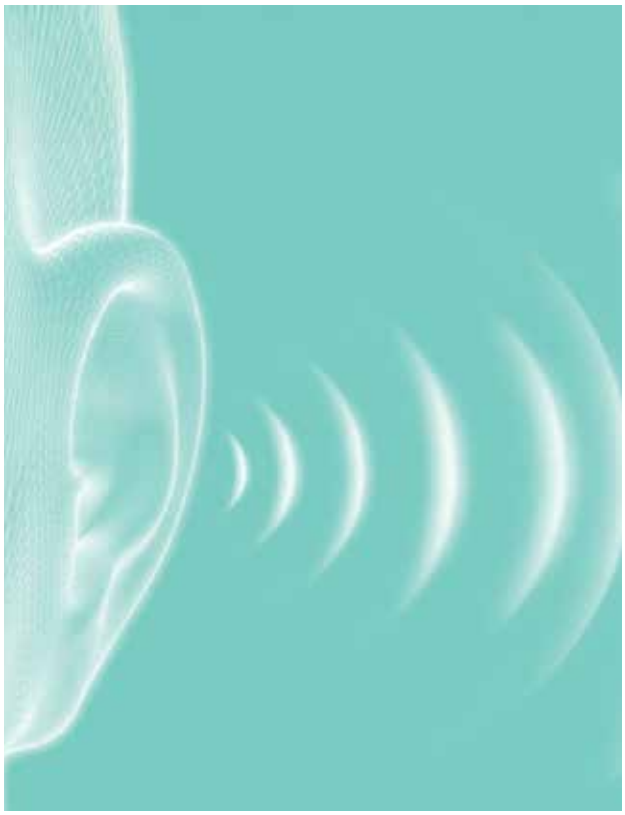

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Audiology Assistants

Navigating Ethical and Legal Issues

BY NICHOLE KINGHAM, MICHAEL PAGE, AND ANGELA PAGE



Legal and ethical issues surrounding audiology assistants spark ongoing discussion in professional audiology circles. Knowing how state regulations, codes of ethics, and supervision requirements intersect with the unique aspects of the audiology assistant role can help audiologists successfully integrate them into care teams and improve patient care. Using several real-world scenarios, the authors offer examples of situations involving assistants and how to best respond.

Navigating Ethical and Legal Issues with Audiology Assistants

The evolving role of audiology assistants in audiology practice settings is well-documented in the literature by competent and experienced practitioners (Kasewurm, 2001; Nemes, 2001; Duran, 2002; Hamil and Andrews, 2016; Karzon et al, 2018). As early as 1997, the American Academy of Audiology (1997;2021) and the American Speech-Language-Hearing Association (2022) published position statements and guidelines on the role of and scope of practice for audiology assistants. Ethical and legal challenges experienced by supervisors and audiology assistants persist primarily due to inconsistent state regulations and a largely undefined scope of practice. National Code of Ethics (COE) and universal principles of ethics should be referenced to

help bring clarity to otherwise ambiguous practice parameters.

Creating a practical strategy for fostering ethics awareness, regulatory licensing and compliance, and adequate supervision can empower supervising audiologists to expertly integrate audiology assistants into existing care teams while upholding the highest standards of patient care and, ultimately, improving patient care, outcomes, and service access. The utilization of audiology assistants in any setting is centered around managing the potential for unseen patient and provider risk. When addressing ethics principles and legal responsibilities, four enduring universal principles of ethics should be considered: respect for autonomy, nonmaleficence, beneficence, and justice (Beauchamp and Childress, 2019). Although a detailed discussion of these principles is beyond the scope of this article, their application can guide the development of a comprehensive strategy for integrating audiology assistants into audiology practice settings. In addition to these principles, supervisors must focus on four critical areas: building ethics competence through training, maintaining regulatory and compliance practices, incorporating professional codes and principles of ethics, and clearly defining and reinforcing audiology assistants' scope of practice.

Building Ethics Competence Through Training

Private practices can mitigate ethical dilemmas and risks by fostering a culture of ethics awareness and providing ongoing and well-documented education. Key strategies include the following.

Clear Role Definitions

Role descriptions must be detailed, outlining the tasks for which audiology assistants are accountable. Supervisors should regularly update job descriptions to align with the assistant's experience, evolving state regulations, and best practices. Training programs should incorporate real-world scenarios, such as addressing patient autonomy issues, maintaining confidentiality, and navigating interpersonal dynamics with patients, families, and other professionals. For example, a training module could include role-playing exercises to prepare assistants for situations involving difficult family dynamics or sensitive patient disclosures.

Standard Operating Procedures

Practices should establish and document clear protocols and operating procedures for common situations, such as:

- Responding to requests for test results
- Handling third-party inquiries about patient care
- Documenting suspected abuse or neglect
- Addressing diagnostic testing discussions
- Maintaining professional communication etiquette, such as email and voicemail best practices

These protocols should be reviewed and updated regularly to ensure relevance and compliance with current regulations.

Supervisory Oversight

Supervisors must provide consistent mentorship and encourage audiology assistants to seek guidance when they are unsure. Regular monitoring can help address emerging ethical concerns and reinforce adherence to the scope of practice. For example, supervisors might conduct monthly meetings to review challenging cases and discuss updates to protocols and operating procedures.

Maintaining Regulatory and Compliance Practices

Although some U.S. states regulate the educational requirements for audiology assistants and what they can and cannot do, many do not have explicit licensure, certification, or registration requirements. While regulations vary by state, this standardization gap leaves audiology practices navigating an ambiguous divide between legal and ethical considerations. Audiology practices should consult their state's health department or professional licensure and registration board to determine specific guidelines and ensure compliance. While state statutes and rules may dictate the scope of practice, ethics codes and principles offer a broader framework for ensuring ethical patient-centered care. The Academy (2021, 2023) provides both a position statement and a COE that guides audiologists, audiology assistants, and other support staff. Laws and codes do not correct or prevent every misstep but are the minimum standards. It is important to avoid the mindset that if the law doesn't prohibit it, and the COEs don't address it, then it must be acceptable. This approach increases risks to the public and hinders audiologists

> Role descriptions must be detailed, outlining the tasks for which audiology assistants are accountable.

from exercising sound judgment, relying instead on the so-called moral minimum, which involves adhering only to legal requirements without striving for higher ethical standards. A good rule of thumb is that if it requires licensure as an audiologist or hearing instrument specialist to complete a task, it likely is not under the scope of practice of an assistant.

To navigate regulatory and compliance ambiguities, practices should:

- Consult state health departments or licensure boards to determine specific guidelines.
- Implement procedures that align with both state statutes and professional COEs.
- Standardize compliance practices to ensure that all staff members adhere to legal and ethical requirements.

For example, audiology practices might consider creating compliance checklists that include verifying licensure (if required), documenting training, and conducting regular audits of assistant activities to ensure that they align with their defined roles.

Incorporating Professional Codes and Principles of Ethics

The Academy's COE (2023) outlines specific standards regarding support personnel:

> **Rule 2d:** Individuals shall provide appropriate supervision and assume full responsibility for services delegated to

support personnel. Individuals shall not delegate any audiology service requiring professional competence to unqualified persons.

Rule 2e: Individuals shall not knowingly permit personnel under their direct or indirect supervision to engage in any practice that is not in compliance with the COE.

Rule 6a: Individuals shall not misrepresent their own educational degrees, training, credentials, or competence or those of support personnel.

The ethics principle of *respect for autonomy* is relevant in these codes, referring to the patient's autonomy to be free of unqualified assistance and the provider's autonomy to offer only the most qualified skills. Autonomy is also evident when a clinician honors a patient's choice in their treatment plan. The principle of *nonmaleficence* (avoiding harm) discourages audiologists from misrepresenting their qualifications or professional skill set. The principle of *beneficence* (doing good) is manifested through skills of respect for all, truthfulness, competence, training, and credentials. Actions should never be justified solely because they are not explicitly addressed or prohibited in the COE. The code represents the minimum ethical standards, whereas principles of ethics embody the deeper purpose—"the why"—that reflects the most intrinsic and meaningful aspects of ethical behavior. When evaluating the responsibilities of an audiology assistant, start by consulting state statutes and regulations, followed by the COE, and then the principles of ethics. In addition, it is essential to consider the potential for harm and how harm might be prevented.

Below are basic ethical principles to consider when an audiology assistant is joining an audiology practice:

- **Do no harm:** Ensure that all actions prioritize patient safety.
- **Respect patient autonomy:** Honor patients' rights to make informed decisions about their care.
- **Abide by the scope of practice:** Adhere to professional boundaries as outlined by applicable state laws, regulations, and professional guidelines.
- **Protect patient confidentiality:** Adhere to the Health Insurance Portability and Accountability Act (HIPAA) of 1996 regulations and safeguard protected health information.
- **Be truthful:** Maintain honesty in all interactions with patients and their families.
- **Treat all individuals with respect:** Avoid discrimination and uphold dignity.
- **Act conservatively** until the risk is fully understood.

For audiology assistants, these principles of ethics guide interactions among patients, colleagues, and supervisors, even without specific state regulations.

Clearly Defining and Reinforcing the Audiology Assistant's Scope of Practice

Audiology assistants must understand, respect, and embrace the limits of their role

to avoid ethical and legal pitfalls. According to the Academy's position statement (1997, 2021), audiology assistants' duties may include:

- Equipment maintenance
- Neonatal hearing screening
- Preparation of a patient for electrophysiologic and balance testing
- Hearing conservation
- Cleaning and maintaining hearing aids
- Assisting in testing setups under the supervision of a licensed audiologist
- Performing administrative tasks, such as paperwork, scheduling, and reception work
- Checking hearing aids in and sending hearing aids out for repair
- Complete the initial counseling and practice of insertion and cleaning in a new fitting
- Hearing screening

Audiology assistants cannot:

- Provide diagnostic testing
- Diagnose or interpret test results
- Make treatment or intervention recommendations
- Provide independent patient counseling
- Violate patient confidentiality
- Perform hearing-health care without supervision
- Misrepresent their role

The assistant's duties are relatively mundane and driven by specific instructions, training, and documented protocols. When in doubt, audiology assistants should defer to licensed audiologists for guidance regarding their duties. Supervisory liability underscores the importance of proper oversight, as supervisors are legally accountable to ensure that their assistants operate within the scope of practice, codes and principles of ethics, and regulatory requirements.

Everyday Practice Scenarios and Examples

The analysis of practical scenarios becomes a symbolic application of not only the COE but the principles of ethics. Scenarios and stories of past experiences encourage the transition of didactic learning to real-world experience. They increase our retention of the principles and improve understanding (Mar et al, 2021; Eckardt et al, 2024). The following sections provide several real-world scenarios that require the use of ethical principles and decision-making.

Audiology Assistant Identity and Communication

A typical communication issue that an audiology assistant may experience with a patient is disclosing their role in the care team. Identifying who the patient will see during the visit should be a front desk protocol and a requirement for any in-person contact. Audiology assistants should be

trained to introduce themselves and clearly explain their role to patients.

SCENARIO 1 A staff member calls the patient back from the waiting room and into a consult room. She sits down and asks, "How can I help you today?" The patient is confused as this same staff person just checked them in at the front desk. The patient says, "I'm sorry, who are you?"

SOLUTION The audiology assistant, with her name tag clearly visible, greets the patient:

> *"Hello, my name is [Name], the audiology assistant here to assist with your hearing aid cleaning today. If you have any questions about your care plan, the audiologist will be happy to discuss them with you after I've finished."*

SCENARIO 2 A patient calls the assistant, "Dr. [Assistant's Last Name]."

SOLUTION The audiology assistant should gently correct the patient by clarifying their title and role to avoid any misconceptions. The assistant should always recognize the audiologist as the primary point person for patient communication, professional advice, and results interpretation. The assistant should avoid any potential for misrepresentation.

Family Relationships

Family relationships can be difficult to manage, even for the most experienced clinician. Ethical issues involving family relationships with audiology assistants can be equally difficult and require practice and training to navigate.

SCENARIO An older patient's adult child insists on certain treatments that the patient may not prefer. She says to the assistant, "Tell her I'm right. We just want the best for her!"

SOLUTION Family members may dominate discussions or decision-making, potentially overshadowing the patient's voice. Audiology assistants should ensure that the patient remains the focal point of all discussions and decisions, obtaining the patient's explicit consent before any actions are taken.

Protected Health Information and HIPAA Compliance

Protecting health information is an essential element of the sacred patient relationship. HIPAA violations can occur quickly and unintentionally and may have serious consequences.

SCENARIO 1 A daughter drops off her mother's hearing aids for a cleaning. An hour later, she calls and asks for an update on the hearing aids.

SOLUTION The audiology assistant must verify whether the patient's daughter is authorized to receive such information, even if the daughter dropped off the hearing aids.

SCENARIO 2 A patient has dropped off his hearing aids for cleaning and says he'll be back later to pick them up. He has no release

of information on file. The audiology assistant calls and leaves a detailed message about what was done and when to pick the hearing aids up.

SOLUTION Leaving detailed voicemail messages about a patient's care without prior consent may breach confidentiality. Practices should establish clear policies and training to address these nuances.

Gifts

Patients often express gratitude through small gifts, such as cookies, gift cards, etc. While accepting such gestures may seem harmless, it can raise ethical questions about favoritism, undue influence, and the potential for unseen risk. If the practice does not accept gifts, this should be made known to the patients up front and included in the patient contract and/or consent to treat documents to avoid embarrassment or unintended hurt feelings. Audiology assistants should adhere to practice policies regarding gifts and consider the potential implications. In addition to the potential for unseen risk, prudence and professional judgment should be the ultimate consideration.

SCENARIO An audiology assistant has been helping a long-time patient with routine hearing aid maintenance. Over time, the two have developed a friendly rapport. One day, the patient visits the clinic and hands the audiology assistant a small gift bag containing a $50 gift card to a local restaurant and a handwritten thank you note expressing her appreciation for the assistant's kindness and attention to detail.

SOLUTION The assistant should acknowledge the gift graciously, thank the patient warmly for her thoughtfulness, and explain that the practice has policies regarding gifts to maintain professionalism and fairness.

Social Media, Boundaries, and Privacy

Relationships with patients outside the professional realm create significant risk and should be managed with a conservative approach or avoided altogether. Sharing patient interactions on social media, even anonymously, can breach ethical and legal standards.

SCENARIO 1 The audiology assistant sees a well-known patient in the practice who tells them a funny story about their grandchild. The assistant examines and cleans the patient's hearing aids. That night at dinner with friends, the assistant considers sharing the story.

SOLUTION Sharing any patient information, identifiable or not, may be a breach of privacy. Assistants should leave information about patients at the clinic and share stories only with their colleagues who were involved in the conversation.

SCENARIO 2 A patient wants to connect with the assistant on their personal social media account.

SOLUTION Connecting on social media using personal accounts should be avoided for a myriad of reasons as it most certainly has the potential to compromise patient and clinician autonomy, professional boundaries, and good judgment.

Domestic Abuse or Suicidal Ideation Disclosure

Over the course of a career, audiology assistants may encounter patients who exhibit signs of abuse or suicidal ideation. Training should include such awareness and responsibility.

SCENARIO 1 An older patient discloses that his in-home caregiver is often asking for cash and refuses to take him to his appointments unless he receives extra payments each time.

SOLUTION The audiology assistant should respond by reporting this information to the supervising audiologist and consider reporting it to an elder abuse organization or hotline.

SCENARIO 2 A veteran patient who reports chronic tinnitus tells the assistant that his tinnitus is severe enough that he has considered taking his life.

SOLUTION The audiology assistant should respond by exhibiting compassion, asking appropriate questions, discussing the situation with their supervising audiologist, and making referrals to appropriate resources.

Conclusion

The integration of audiology assistants into audiology practice settings offers significant opportunities to enhance patient care, improve service accessibility, and support audiologists in delivering high-quality care. However, this integration requires careful navigation of ethical and legal complexities, guided by clear role definitions, adherence to professional COE, and ongoing training. Supervisors must ensure compliance with state regulations; uphold universal ethical principles such as autonomy, nonmaleficence, beneficence, and justice; and maintain robust oversight to mitigate risks and protect patient welfare.

By fostering a culture of ethical awareness, standardizing operational procedures, and emphasizing proper supervision, audiology practices can create a safe and effective framework for utilizing audiology assistants. Ultimately, prioritizing patient safety, respecting professional boundaries, and adhering to ethical and legal standards will not only safeguard patients but also reinforce the integrity of the audiology profession.

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Through experience, trial and error, research and mentorship, she has developed key insights for delivering exceptional patient experiences.

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Angela Page, DNP, APRN, PPCNP-BC, is a pediatric nurse practitioner and assistant professor of nursing at Weber State University in Ogden, Utah. She is passionate about interprofessional collaboration in all aspects of healthcare and often collaborates with her husband, Michael Page, AuD on hearing-related elements of care. Her students are well-apprised of her passion for pediatric hearing screening in primary care and in school-based settings to keep children in school-healthy and ready to learn.

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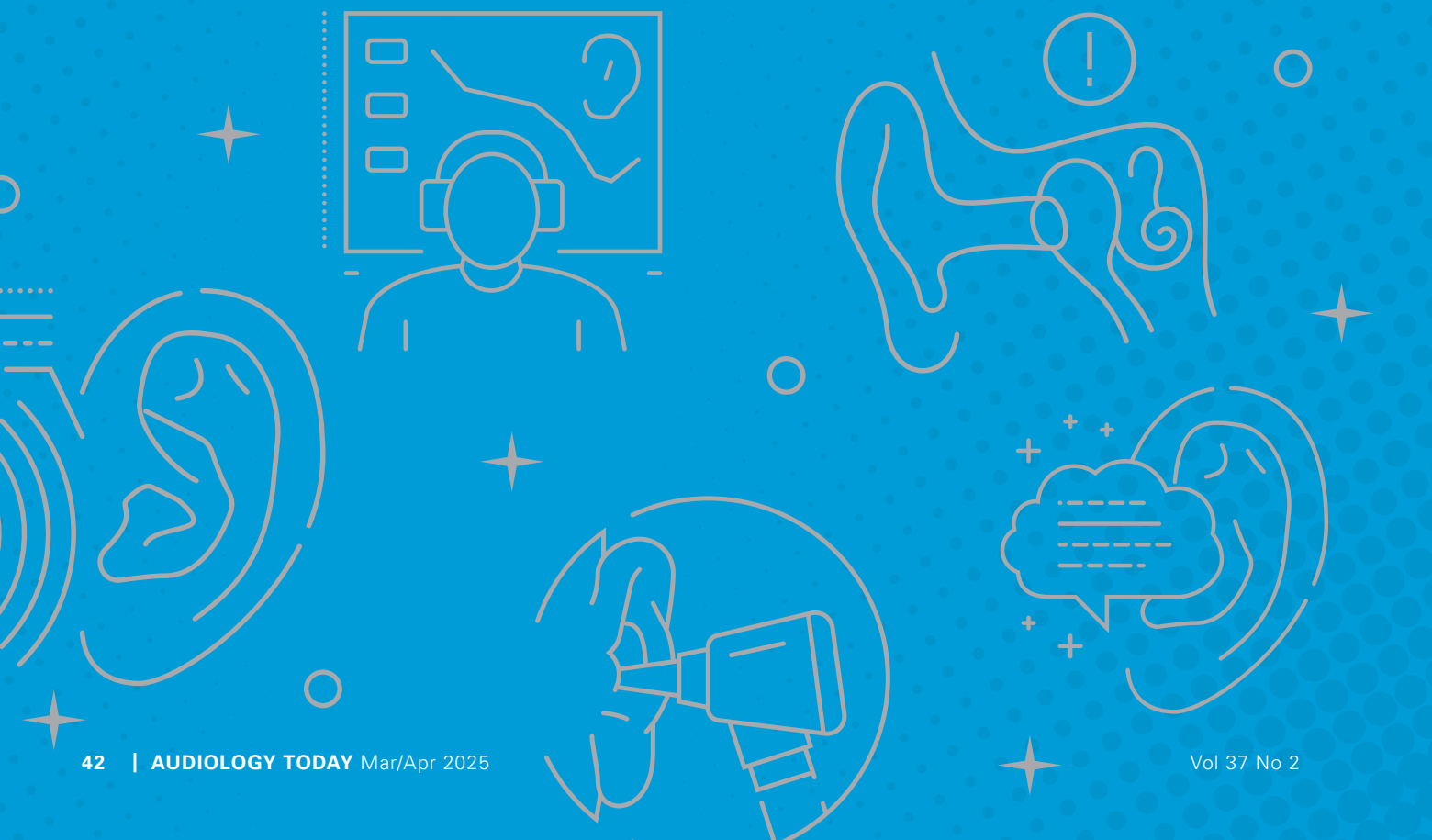
The *Diversified* Audiology Practice

BY SAMUEL N. BITTEL



A diversified private audiology practice can help increase earning potential. By diversifying your practice, you insulate yourself from negative outside forces, increase your potential for success, and bring your services to a wider range of patients.

Do you feel like you are undercompensated or underappreciated for your work as an audiologist? I am often approached by colleagues who note a poor return on investment for the AuD degree, lower salaries than expected, and a general lack of appreciation for our expertise. There may be a path to increased patient access, higher salaries, and greater job satisfaction through a diversified private audiology practice.

Exploring Salaries in Audiology

Are salaries lower for audiologists than other similar professions? To answer this question, it might be useful to compare audiology to a larger and older field. Optometry serves as the entry point to vision and eye-specific care, so it seems like a reasonable comparative field to audiology. According to the U.S. Bureau of Labor Statistics, there are 41,390 optometrists and 13,880 audiologists in the United States (U.S.

Bureau of Labor Statics, 2023a, 2023b). Optometrists often have a wider scope of practice, with nine states allowing surgery via laser, six allowing more basic surgical procedures, and general nationwide pharmaceutical prescribing rights (National Conference of State Legislators, 2024).

> In addition to increasing earning potential, owning a private practice can help increase net worth.

According to data from 2021, the average yearly net income for an optometrist is $168,193 (American Optometric Association, 2022), whereas the most recent compensation survey by the Academy indicated an overall average salary of $115,795 (American Academy of Audiology, 2023a). It is important to understand that all practice types are included in the Academy's data. Audiologists with an AuD degree and one to three years of experience have a median salary of $81,000, while an AuD with greater than 20 years of experience has a median salary of nearly $125,000. Optometrists appear to have higher earning potential than audiologists, but a deeper analysis is prudent to evaluate salary discrepancies.

Although optometry has slowly grown as a profession, the number of private practice owners has declined. In 2012, 71 percent of optometrists owned a private practice, but over a five-year period, optometry saw a decrease of 15 percent in private practice ownership (Cole, 2021). Private practice optometrists are the highest wage earners in their profession, with an average yearly income of approximately $198,000 (American Optometric Association, 2022). However, given the declining rates of practice ownership, salaries may also be in decline.

A much smaller percentage of audiologists own their practice. According to the Academy (2023), only 12 percent of audiologists are owners, and, like optometry, are some of the highest wage earners, with a mean annual compensation of approximately $190,000. Private practice audiologists only earn on average $8,000 per year less than the typical optometrist owner. Interestingly, the mean

salary for a staff audiologist (across all years of experience) at $93,599 is less than half earned by a practice owner.

In addition to increasing earning potential, owning a private practice can help increase net worth. The equity of a practice builds the value of a tangible asset. That is, the practice in and of itself has value. This value can be converted to cash with a practice sale. This is an important and often overlooked benefit of privately owning a practice.

There are significant and wider consequences related to the lower private practice ownership and salaries in audiology. Lower overall salaries in audiology may lead to less disposable income for contributions to candidates for office, which, in turn, can have a negative impact on efforts to increase scope of practice, protect reimbursement for audiology-specific billing codes, and fight legislation that may be detrimental to our profession. These consequences further serve to keep salaries low in audiology. Unfortunately, there has been relatively low political action spending in audiology. As of December 14, 2024, the American Optometric Association spent $2,041,596 on political campaign contributions and $1,920,000 on lobbying during the 2024 calendar year (Open Secrets, 2024b). The American Academy of Audiology spent $17,046 on political contributions and $30,000 on lobbying in 2024 (Open Secrets, 2024a). Although optometry is a field approximately three times larger than audiology, their national organization outspent the Academy by 84 times during 2024. In theory, higher salaries in audiology would equate to higher political action donations, which would in turn help with legislation that could further increase (or protect) these salaries. That's why it's important for U.S. members to support the Academy's political action committee.

Even with increased wages and net worth, private practice ownership has been lagging in audiology. There may be increased risk in taking on the financial responsibilities associated with opening and maintaining a practice; however, this risk can be mitigated by having a diversified audiology practice.

The Diversified Audiology Practice

The private practice can be considered a revenue-generating and asset-increasing entity. When investing in the start-up or purchase of a business, the return on this investment should be considered. Just like any other investment, diversification can help mitigate risk (Reinholtz et al, 2021). With typical investments, diversification occurs across different asset classes (stocks, bonds, etc.). In a private audiology practice, diversification can occur across different revenue streams.

The typical audiology practice generates the majority of its revenue from hearing aid sales (Phonak Market Research, 2011). Focusing on a single primary revenue stream may present unneeded risk. If this revenue stream is disrupted, it can be cataclysmic for the business. There are multiple examples of potential disruptive forces to the hearing aid industry, including better and cheaper over-the-counter hearing aids, continued third-party administrator and insurance involvement in dispensing, more big-box retail involvement, advancements in instrument self-fitting, pharmaceutical treatment

of hearing loss, etc. Diagnostic and rehabilitative services also face risk, as revenue can be tied to insurance reimbursement, which may not remain static. Spreading revenue across a number of streams helps with financial risk protection, reinforces the audiologist's place as the entry point for ear-related care, and helps expand the referral and patient base.

The following sections will outline the specialty areas I chose to help diversify my private practice.

Vestibular Disorders

The evaluation of dizziness, vertigo, and disequilibrium presents an excellent opportunity for audiologists. According to current data, 3 percent of all emergency room visits are specifically for dizziness, which equates to approximately 4,194,000 distinct patient visits per year in the United States (National Center for Health Statistics, 2021). There are 383,000,000 primary care visits per year, and, of these, 5 percent (19,150,00) are specifically for dizziness (National Center for Health Statistics, 2019; Post and Dickerson, 2010). Forty-two percent of Americans (140,280,000) will report bothersome dizziness at some point in their lives (Watson and Sinclair, 1992). Disequilibrium and falls are also prevalent in the United States. Individuals over the age of 40 years with a balance disorder have a 44 percent higher risk of all-cause mortality (Cao et al, 2021). In those over the age of 60 years, 30 percent (12,024,000) have an identifiable balance problem (Jönsson et al, 2004).

> “Just like any other investment, diversification can help mitigate risk.

The vestibular clinic, by virtue of its focus on diagnostics, follows a medical model and not a retail sales model. With the incorporation of a vestibular program, a practice can expect increased physician referrals from various specialties. In my practice, we found an increase in referrals for all ear-related issues with the development of our vestibular program. Audiologists are uniquely skilled in diagnosing vestibular issues, as no other profession has the refined testing tools and level of university vestibular-specific education that audiology possesses. With these tools and skills, referring physicians will often see

audiologists as a valuable resource. Growing a vestibular program will help increase and diversify revenue.

Tinnitus and Sound Sensitivity

Tinnitus is a common complaint. In the United States, 11 percent (36,740,000) of people have noticeable tinnitus, and 2 percent (6,680,000) have severe tinnitus (Jarach et al, 2022; Batts and Stankovich, 2024). Most individuals with tinnitus have hearing loss (National Institutes of Health, 2024). Many tinnitus treatment options involve the introduction of sound through a generator (hearing aid, sound generator, noise machine, etc.), which lies within an audiologist's wheelhouse. As tinnitus and sound sensitivity can coexist, it is important for a comprehensive program to address both conditions. Having the ability and comfort level to manage particularly bothersome or severe tinnitus and sound sensitivity can provide great benefit to patients, differentiate your practice, increase referrals and revenue, and help diversify your offerings.

Auditory Processing Disorders

Epidemiological studies related to the frequency of auditory processing disorders (APD) in the United States are varied, which may be related to how APD is defined and/or diagnosed. According to the current research, anywhere from 140,000 to 2,175,000 children in the United States may have APD (Musiek and Chermak, 2009). Unfortunately, APD is often under- or misdiagnosed, and awareness can be somewhat limited (Alanazi, 2023). Children with untreated APD may have poorer school performance, decreased quality of life, and impaired psychosocial wellness (Alanazi, 2023).

APD also occurs in adults and may be as high as 70 percent in those over the age of 50 years (Stach et al, 1990; Palfrey and Duff, 2007). Of note, hearing loss in and of itself causes issues with central processing, as a degraded signal is reaching the auditory centers of the brain. However, a central decline in auditory processing abilities appears to exist separately from hearing loss in older patients (Sardone et al, 2019). Untreated APD in older adults may have similar consequences to untreated hearing loss (Sardone et al, 2019).

Audiologists are uniquely qualified in the diagnosis and management of APD given our understanding of the peripheral and central hearing mechanisms, clinical tools and tests, and skill set in habilitation and rehabilitation. Providing APD services allows you to treat hearing losses that may not be peripheral in origin. By doing so, you are identifying more individuals who need your help and creating a more comprehensive hearing center.

Ancillary Services

Diagnosis of a condition is significantly less valuable to patients and referral sources without direct management of this condition. If you identify a treatable condition, it is imperative that you directly provide intervention, refer the patient to another professional who can treat it, or make specific recommendations for treatment.

In my opinion, providing vestibular, tinnitus, and APD diagnostics without also providing treatment options is a recipe for failure. Referring physicians are under

pressure to provide real-world solutions, reduce unnecessary referrals, and decrease health-care costs (Cooke, 2010; Shah, 2013). If you simply make a diagnosis, but do not address a solution for the underlying problem, you may soon find that referrals no longer come your way. The diagnostics will appear less valuable, and physicians may refer patients directly for intervention, bypassing audiology.

My practice employs a physical therapist and speech-language pathologist, and it contracts with a neuropsychologist. By working with professionals from diverse fields, we are able to provide a more complete picture for our patient.

> If you provide specialty services within your practice, do so at a high level.

Challenges

Having a diversified practice can present a number of challenges, however. Vestibular diagnostics are often covered by insurance, so cuts and changes in reimbursement can reduce revenue. Several vestibular tests do not have Current Procedural Terminology (CPT) codes, and tinnitus and APD treatment/therapy services may not have codes that can be billed by an audiologist; as such, your clinic will need to be well-versed and comfortable with unlisted CPT codes such as 92700, advance beneficiary notice of non-coverage, and out-of-pocket payment. Your providers and billing team should have a strong handle on these issues prior to seeing patients. The Academy has excellent resources for additional questions (American Academy of Audiology, 2023b).

If you employ providers outside of audiology, it is important to understand your individual state laws and statutes. Although audiologists are not included as designated health-care providers within the current Stark laws, physical therapists and speech-language pathologists are. Furthermore, you must ensure that your practice is not violating any anti-kickback statutes by self-referring. Careful review of your state laws and consultation with your business attorney is highly recommended.

Specialty services often rely heavily on physician referrals.

To build these programs, it will be important for a provider to educate the health-care community. Physicians must see you as a colleague, resource, and expert, which takes effort and time. Audiologists are the most highly trained specialists in our areas of focus, so health-care providers are typically happy to send patients our way.

If you provide specialty services within your practice, do so at a high level. "Dabbling" in complex diagnostics or management is not suggested. To remain viable, you must do a better job than your competition. There are no shortcuts in becoming an audiology specialist, and a weekend course will not be enough training to form the foundation of a sustainable program. Furthermore, your specialty programs should not be a secondary focus to your dispensing practice and/or a simple feeder for more hearing aid sales. These programs deal with complex and challenging patients who often desperately need help, so they deserve your attention and effort.

Benefits

I have a profitable, eight-year-old practice that generates less than 50 percent of its revenue from hearing aid sales and has grown to approximately 10,000 patient visits per year. In 2024 alone, direct physician referrals resulted in over 1,200 scheduled and seen vestibular evaluations, 700 benign paroxysmal positional vertigo treatments, 800 tinnitus evaluation/treatment appointments, 360 physical therapy evaluations, 1,400 physical therapy treatment appointments, and 240 APD evaluation/treatment appointments. This practice has grown from no yearly physician referrals to approximately 2,000 per year. Through a diversification of services, my practice has experienced substantial growth, spread risk across service areas, and provided diagnostic and rehabilitative services across a wide range of patients. Not only has diversification protected and increased our bottom line, it has also allowed us to help more patients than would have otherwise been possible.

Samuel N. Bittel, AuD, is a private practicing audiologist who specializes in the evaluation and management of vestibular disorders. Dr. Bittel volunteers on the American Board of Audiology's subject matter expertise group to help the development of a vestibular specialization certification, the American Academy of Audiology's Practice Management Task Force, and on the American Practice Standards Organization's cerumen management standards group. He is currently an associate editor for Audiology Today. *He served on the Academy's board of directors from 2018-2021.*

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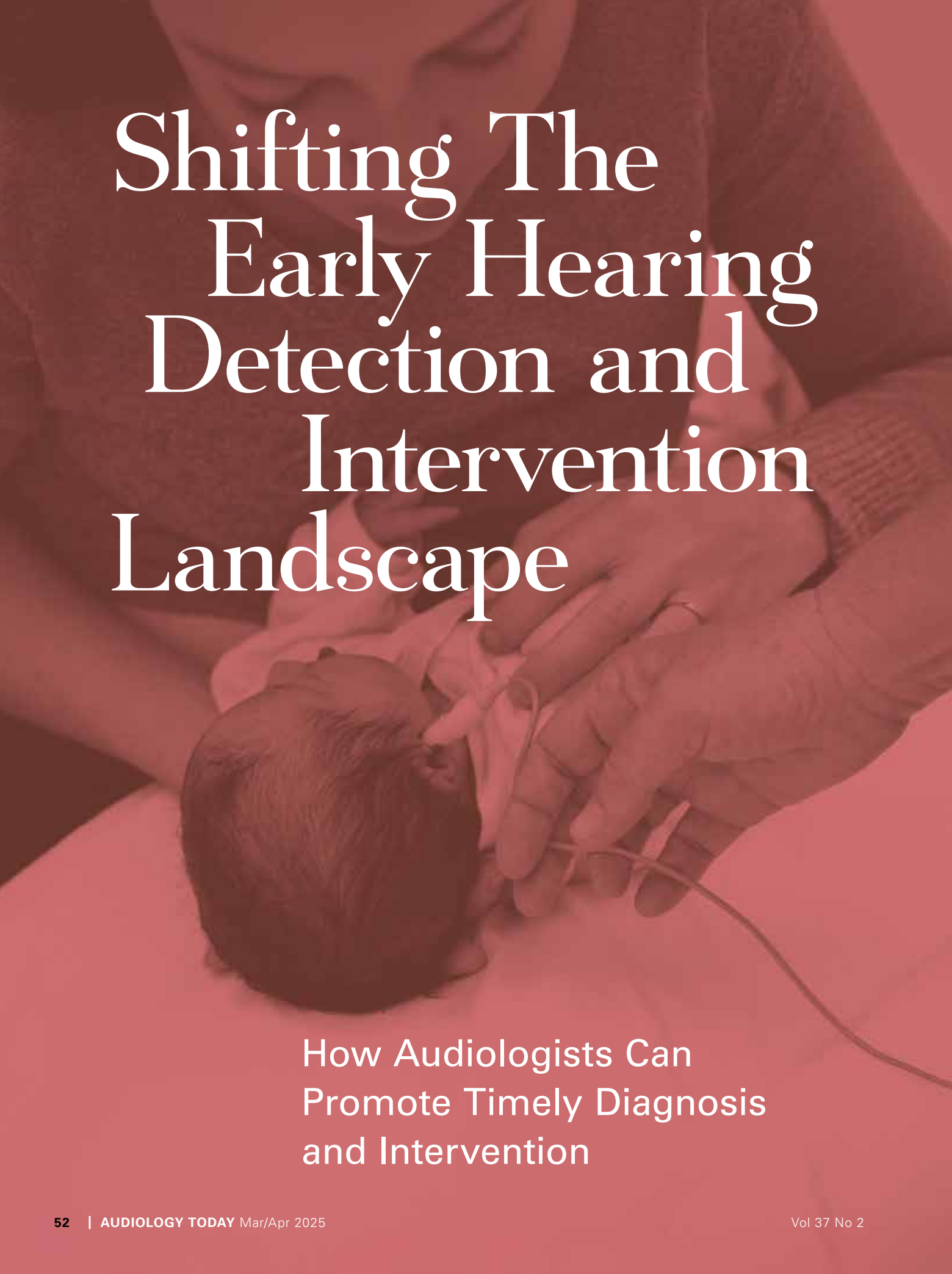

Shifting The Early Hearing Detection and Intervention Landscape

How Audiologists Can Promote Timely Diagnosis and Intervention

CHAMELEONSEYE/SHUTTERSTOCK.COM AND S. CHANESMAN

For families who want their children born with hearing loss to develop spoken language and literacy skills, prompt access to appropriately selected and programmed hearing aids or cochlear implants is mandatory. Audiologists must work together to continue to advance the Early Hearing Detection and Intervention 1-3-6 goals and support families in making informed decisions on how they can best pursue the goals they have for children with hearing loss.

BY JACE WOLFE, TERESA CARAWAY, AND ANDREA DUNN

Background

Just over 25 years ago, the U.S. Congress introduced the Newborn and Infant Hearing Screening and Intervention Act of 1999 (H.R. 1193—106th Congress), which was later incorporated into the Children's Health Act of 2000 (H.R. 4365—106th Congress). This legislation authorized federal funds to states to support the creation of the Early Hearing Detection and Intervention (EHDI) programs and the implementation of universal newborn hearing screening. The Children's Health Act designated the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA) as the federal entities that provide funding and technical support to states, which implement their respective EHDI programs at the local level.

The Joint Committee on Infant Hearing (JCIH) endorsed the 1-3-6 EHDI initiatives in their 2000 position statement (JCIH 2000). The 1-3-6 EHDI initiatives recommended that (1) all infants undergo a hearing screening by 1 month of age, (2) infants who fail the hearing screening have a diagnostic audiology assessment by 3 months of age, and (3) those with permanent hearing loss

receive intervention no later than 6 months of age. Research has shown that children born deaf or hard of hearing are likely to develop age-appropriate listening and spoken language skills if their hearing loss is identified at birth and they receive their hearing aids or cochlear implants shortly thereafter (Ching and Dillon, 2013; Dettman et al, 2016; Tomblin et al, 2015; Cupples et al, 2018; Illg et al, 2024). Conversely, evidence also indicates that delays in diagnosing hearing loss, acquiring hearing devices, and enrolling in intervention are linked to lower scores on standardized language measures compared with those in children who meet EHDI program milestones (TABLE 1).

By some accounts, the state EHDI and universal newborn hearing screening programs have produced positive results. In a review of the evolution of the EHDI programs in the United States, White et al (2010) noted numerous studies in which the mean age at identification of hearing loss was 2–4 months in states with well-developed EHDI programs (Johnson et al, 1997; Vohr et al, 1998; Harrison et al, 2003; Massachusetts Department of Public Health, 2004) compared with 19–35 months in states without EHDI programs and universal newborn hearing screening (Coplan, 1987; Elssmann et al, 1987; Meadow-Orlans, 1987; Gustason, 1989; Stein et al, 1990; Mace et al, 1991). Moreover, the most recent CDC data (2021) indicated that 98 percent of babies born in the United States were screened for hearing loss, with 95.5 percent screened before 1 month of age, in accordance with JCIH guidelines.

Despite these successful milestones, the U.S. EHDI system also faces challenges. In 2021, only 43 percent of infants with failed hearing screenings completed a diagnostic audiology assessment by 3 months of age (CDC, 2021). In addition, only 42 percent of infants identified with permanent hearing loss were subsequently enrolled in Individuals with Disabilities Education Act (IDEA) Part C intervention services by 6 months of age (CDC, 2021).

TABLE 1. Key Findings on EHDI Influences on Language Outcomes

STUDY	SAMPLE SIZE (N =)	KEY FINDING
Ching et al., 2013	451	For each six-month delay in cochlear implantation starting at six months, language outcomes at age three were reduced by half a standard deviation.
Cupples et al., 2018	451	Age at hearing aid fitting and cochlear implantation were two of the most important predictors of language outcomes at age five.
Dettman et al., 2016	403	90% of children implanted before nine months achieved age-appropriate spoken language by school entry. Significant language delays were noted for those implanted after age two.
Illg et al., 2024	84	The majority of children implanted before age two achieved age-appropriate linguistic performance, but outcomes were still significantly influenced by the exact age at implantation.
Tomblin et al., 2015	302	Children who received hearing aids before six months of age had significantly better language outcomes compared to those fitted later.

Changes to EHDI Program Coordination at the National Level

Significant changes were recently announced to EHDI program coordination at the national level that may affect state programs. In August 2024, the Office of Special Education Programs (OSEP) coauthored a letter in collaboration with HRSA and CDC on EHDI and Part C programs. It stressed "the need for ongoing assessment to track how infant screening, diagnosis, and early intervention impact 'the health, intellectual and social developmental, cognitive, and language status of these children at school age'" (Warren et al, 2024, 3). The letter called on state EHDI programs to coordinate with state IDEA Part C programs to track language acquisition and support for eligible children from birth through 36 months of age. The letter stated that HRSA, CDC, and OSEP strongly encourage state programs to collaborate to track progress from the hearing screening to age 3 years to enhance developmental outcomes and to provide federally-funded technical assistance centers to create and sustain coordinated data systems to track these data. The letter also stated that "state EHDI and IDEA Part C programs can serve as model collaborators by connecting partners and information across systems to track the impact of early intervention on key developmental outcomes such as language acquisition and family support" (Warren et al, 2024, 4).

> Three key factors that influence the EHDI 1-3-6 initiatives and the experiences of children and their families are health equity, health disparity, and social determinants of health.

In April 2024, HRSA announced a change in the partners designated to support implementation of EHDI services to the states from the National Center for Hearing Assessment and Management (NCHAM) to the Implementation Change Center (ICC). For 25 years, the federal Maternal and Child

Health Bureau—an operating division of HRSA—provided federal funding that enabled NCHAM to offer resources and technical assistance to EHDI programs at the state level (White et al, 2024). NCHAM oversaw the Rhode Island Hearing Assessment Program, which was the first large-scale study of universal newborn hearing screening from 1988 to 1993. This landmark research provided evidence on hearing screening program feasibility, technical and logistical implementation, and efficacy, ultimately playing a role in Congress' support of universal newborn hearing screening. Since then, NCHAM has created the Newborn Hearing Screening Training Curriculum for individuals performing screening, developed and maintained the HiTrack data management and tracking software for documenting results and generating reports, and hosted the annual EHDI conference. Looking ahead, NCHAM will offer training and technical assistance as a contractor, and their training materials, software, and resources will continue to be available on their website at www.infanthearing.org.

> "Audiologists must take the lead in raising general awareness of the vital importance of early hearing on brain development and the spoken language and literacy outcomes of children.

ICC, housed at Gallaudet University's National Beacon Center for Early Language System Accountability and Data, is now federally funded to incorporate implementation science and change management methods to provide technical assistance and training materials, including data collection support and resources to EHDI programs. It plans to evaluate and meet stakeholders' needs at the state level and to develop a database for tracking language acquisition outcomes in infants

and young children with hearing loss (Gallaudet University, 2024).

In April 2024, HRSA also announced the formation of the EHDI National Network that consists of three entities:

1. ICC (as described above)
2. The Family Leadership in Language and Learning Center, which is based within Hands and Voices
3. The EHDI Provider Education Center (PEC), which is based within the American Academy of Pediatrics

Each of these three organizations has its own specific responsibilities and expertise.

FIGURE 1. Key factors that influence the Early Hearing Detection and Intervention 1-3-6 initiatives and the experiences of children and their families.

HEALTH EQUITY

The state in which everyone has a fair and just opportunity to attain their highest level of health (CDC, 2024b). Health inequities result in inequalities in the services and treatments individuals receive because they are marginalized on a nonmedical basis (e.g., poorer access to services or intervention due to limited resources, systemic racism, limited education and health literacy, place of residence).

HEALTH DISPARITY

Preventable differences that populations experience in the burden of disease, injury, violence, or opportunities. When people have limited access to the resources they need to be healthy, they are more likely to struggle with health issues (CDC, 2024b). Health disparity is generally associated with a negative impact on outcomes due to the social determinants of health and/or sociodemographic variables.

SOCIAL DETERMINANTS OF HEALTH

The nonmedical factors that influence health outcomes are the conditions in which people are born, grow, work, live, and age (CDC, 2024a). For example, poverty negatively impacts the social determinants of health, and poverty does not affect each race equally. The most recent U.S. census found that Black and Hispanic citizens were approximately twice as likely, and Native American citizens were almost three times more likely, to live in poverty compared with White citizens (U.S. Census Bureau, 2024).

Hands and Voices is receiving HRSA funding to enhance family-to-family support, develop the leadership skills of families of children with hearing loss, and facilitate the engagement of deaf and hard of hearing adults in EHDI programs. PEC is receiving EHDI funding to provide training and resources for physicians, health-care providers, and allied health professionals to enable them to work most effectively within their local EHDI system. The three centers within the EHDI National Network are tasked with working collaboratively to provide training and technical assistance to all state EHDI programs. They will also offer enhanced, intensive support to at least 25 selected state/territory EHDI programs over the next 5 years and offer consultation

TABLE 2. Key Findings on the Impact of Social Determinants of Health (SDOH) and Sociodemographic Factors on Hearing Screening, Diagnosis, Service and Device Access

STUDY	SAMPLE SIZE (N =)	KEY FINDING
Crouch et al. (2017)	1,609	45% of non-white infants received diagnostic audiology assessments by one month, compared to 55% of white infants; 38% of infants of mothers without a high school degree were screened by one month, compared to 54% of those with at least a high school degree. (South Carolina)
Meyer et al. (2020)	729	49% of Black infants experienced delayed diagnosis (> 3 months) compared to 26% of white infants; 40% of infants of mothers with high school diploma or less had delayed diagnosis compared to 16% of those born to college graduates. (Minnesota)
Bush et al. (2014)	6,970	Mean age of hearing loss identification was 53 weeks for infants from rural areas of KY (on average 82 miles from care) compared to 31 weeks for infants from urban areas (23 miles away). No children from rural areas received cochlear implants before age one, while 65 children from metropolitan areas did. (Kentucky)
Liu et al. (2021)	1,511	55 white children received cochlear implants before age one compared to no black children. No children from rural areas received an implant before age one, versus 65 children from metropolitan areas. (Florida)
Findlen et al. (2024)	N/A (Lit review)	No significant relationship between LTFU and race/ethnicity, insurance type, or distance to care in a network of urban hospitals.
Ching et al. (2013);	451	Higher maternal education was associated with higher global (speech, language, developmental) outcomes at three years. (Australia)
Cupples et al. (2018)	146	Higher maternal education was associated with better language outcomes at age five for children using hearing aids. (Australia)
Christensen, Thompson, & Letson (2008)	204,694	Lower LTFU rates were observed at an urban safety-net hospital providing social support services compared to the rest of the state. (Colorado)
Razak et al. (2021)	197	No significant effects of maternal age, education, insurance type, or race on LTFU rates at an urban safety-net hospital; higher LTFU rates were observed for infants with an extended NICU stay. (Massachusetts)
Bush et al. (2017)	63	Implementation of a patient care navigator led to lower LTFU rates, earlier age of hearing loss identification, and increased adherence to EHDI recommendations. (Kentucky)
Hunter et al., 2016	1493	LTFU rates were lower for WIC-eligible infants (9.6%), compared to those not connected to WIC services (28.7%). (Ohio)

LTFU=loss to follow-up; WIC=Special Supplemental Nutrition Program for Women, Infants, and Children.

on the collection of language acquisition data for future reporting of developmental outcomes of 3-year-old children served by these programs.

How Social Determinants of Health Impact EHDI Initiatives

As EHDI programs create systems to track language outcomes of children with hearing loss, the primary focus must continue to center on efforts to achieve the EHDI 1-3-6 goals. Three key factors that influence the EHDI 1-3-6 initiatives and the experiences of children and their families are health equity, health disparity, and social determinants of health (FIGURE 1).

Numerous research studies have demonstrated the effect of the social determinants of health on EHDI services and outcomes (Christensen et al, 2008; Hunter et al, 2016; Bush et al, 2017; Razak et al, 2021; Findlen et al, 2024), as outlined in TABLE 2. Key factors associated with higher loss to follow-up (LTFU) and delayed hearing loss identification and intervention include race (e.g., poorer outcomes for Latino, Black, and Native American infants), socioeconomic status (e.g., lower income and public insurance), rural residence, lower parental education, and family structure (e.g., single parent, unmarried). When left unmitigated, the social determinants of health and certain sociodemographic factors create inequities in the pediatric hearing-health-care system.

Although research indicates that social determinants of health increase the risk of EHDI delays, social support services in hospitals may diminish these impacts. For example, multiple studies examined EHDI outcomes for infants and found lower LTFU rates at urban hospitals offering social support services compared with other hospitals (Christensen et al, 2008; Hunter et al, 2016; Bush et al, 2017; Razak et al, 2021; Findlen et al, 2024). For example, Findlen et al (2024) found considerably lower LTFU rates in their urban hospital network (14 percent) compared with the state average (26 percent). They also found no significant relationship among LTFU and insurance type, race and ethnicity, or distance to the clinic and attributed their favorable LTFU outcomes to family outreach through care coordinators and the hospital's social programs, which promote timely completion of diagnostic audiology assessments. Bush et al (2017) also reported that implementing a care navigator led to lower LTFU rates, earlier age at identification of hearing loss, and increased parental adherence to EHDI recommendations. Finally, Hunter et al (2016) demonstrated that using a care coordinator to connect families to outpatient newborn hearing screenings through Women, Infants, and Children (WIC) programs—a resource providing nutrition and health guidance to low-income families—resulted in a mean LTFU rate of 9.6 percent compared with 28.7 percent for infants from the same birthing hospitals who were not connected to the WIC screening.

In summary, achieving EHDI 1-3-6 goals is more likely when personnel are designated to manage communication across professionals, families, and state EHDI programs and provide social welfare services that meet families' pressing needs. These include convenient, coordinated scheduling

of appointments; resources for transportation; assistance with insurance benefits; resources to cover the costs of screening, diagnostic assessment, and other EHDI services; and education about the importance of early identification and intervention. However, the current EHDI system does not have built-in funding to implement social care programs to overcome social determinants of health as barriers to timely care.

What Can Audiologists Do?

Given the multifaceted factors influencing EHDI outcomes and access to timely EHDI services, the pediatric hearing-health-care community must work together to identify the most effective solutions to overcome the social determinants of health and other barriers that prevent attainment of the EHDI 1-3-6 goals. Audiologists are the first responders in the EHDI system, and attainment of the EHDI 1-3-6 goals must continue to be our top priority to ensure that infants born with hearing loss are identified at birth and receive immediate access to the intervention they need to reach the goals and dreams their families have for them. Audiologists should maintain consistent and open communication with their

FIGURE 2. Hearing First Starts Hear campaign.

state EHDI coordinators and are encouraged to inquire about how they can effectively support their state EHDI program. They are also urged to participate in state EHDI advisory boards, committees, or other engagement opportunities. As indicated in the research described above (Hunter et al, 2016; Bush et al, 2017; Findlen et al, 2024), barriers to excellent EHDI outcomes, such as the social determinants of health, can be overcome at least to some extent by audiologists and other critical EHDI professionals working together to provide social welfare support services at the community level.

In addition, audiologists must take the lead in raising general awareness of the vital importance of early hearing on brain development and the spoken language and literacy outcomes of children. Audiologists must ensure that new parents are aware of newborn hearing screening and their infant's hearing status at birth. The Hearing First *Starts Hear* campaign is one example of a public awareness campaign designed to raise expectant mothers' awareness of the importance of early hearing (FIGURE 2). *Starts Hear* uses multiple formats (such as YouTube, social media, and email) to provide simple, actionable information associated with three key messages: (1) hearing is critical to your child's brain development and builds a foundation for learning, spoken language, and literacy; (2) because of the importance of hearing, your baby will have a hearing screening at birth; and (3) if your baby fails the newborn hearing screening, follow-up is urgent. The messaging contains links to the *Starts Hear* website that allows expectant and new mothers to learn more about early hearing, newborn hearing screening, and follow-up (see www.startshear.org). The *Starts Hear* initiative also sends an email or text to remind mothers to learn the results of their infant's hearing screening and to take action if needed.

For families who want their children to develop spoken language and literacy skills, prompt access to appropriately selected and programmed hearing aids or cochlear implants is mandatory. As the EHDI system undergoes transitions at the national level, collaboration among pediatric audiologists, state EHDI programs, and other local EHDI professionals is necessary to meet the most critical needs and implement necessary changes at the local level. Pediatric

audiologists also must ensure that families have access to basic life needs, so they are equipped to create a language-rich listening environment replete with intelligible speech. Appropriate nutrition is necessary to maximize brain development to support optimal spoken language and literacy neural networks. To arrest auditory deprivation, we must first eliminate the inequitable social barriers that prevent many children with limited resources from receiving the timely identification and intervention they need. As the EHDI system prepares to coordinate with IDEA Part C to ensure assessment of language development, we must be certain to continue to raise awareness of the importance of timely follow-up after a failed newborn hearing screening. We must work together to continue to advance the EHDI 1-3-6 goals and support families in making informed decisions on how they can best pursue the goals they have for their children born with hearing loss.

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Overlooked Variables Regarding Hearing Aids and Dementia

BY RON LEAVITT

Potential cognitive benefits of hearing aid use are reported in the literature in four widely-publicized studies (Glick and Sharma, 2017, 2020; Lin et al, 2023; Sarant JZ et al, 2024). However, some of these studies have been criticized for their methodological limitations (Dawes, 2024; Sarant J et al, 2024). In their recent study, Sarant J et al (2024) addressed many of these methodological concerns and noted that use of randomized-controlled trials as a "gold standard" of proof may raise ethical concerns.

Clearly, issues associated with hearing loss, cognitive decline, and hearing aids have received much attention. By contrast, the parameters that yield these benefits have received much less consideration. In the studies noted above, all participants wore hearing aids programmed to a real-ear verified National Acoustic Laboratories' nonlinear fitting procedure, version 22nd edition (NAL NL-2) target as described by Keidser et al (2011), with a maximum deviation from target of + 5dB from 500 to 4000 Hz.

If one assumes throughout the United States all patients are receiving such verified real-ear fittings, the potential cognitive benefits may apply. However, this may not be the case nationally, as multiple studies document deviations from prescriptive targets (TABLE 1).

In pharmacological studies showing a significant therapeutic benefit, therapeutic dosage becomes a critical variable. Physicians hoping for similar therapeutic benefits must

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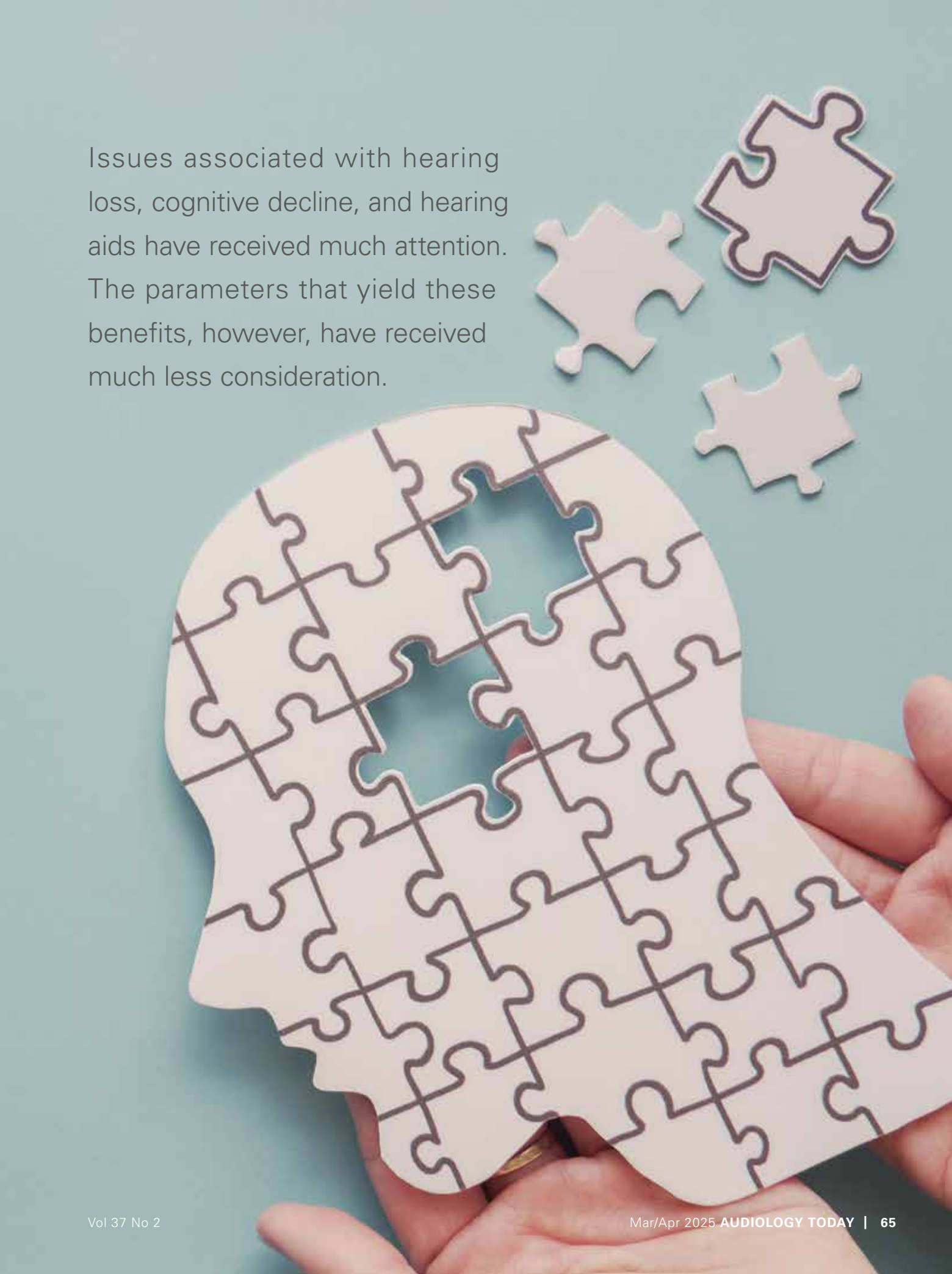
Issues associated with hearing loss, cognitive decline, and hearing aids have received much attention. The parameters that yield these benefits, however, have received much less consideration.



follow the reported dosage. Similarly, hearing-healthcare providers who expect to achieve the cognitive benefits demonstrated by the previous studies are obliged to follow the same dosage requirements (e.g., matching NAL NL-2 real-ear validated target on all patients).

“Persons with hearing loss are not able to accurately judge if their hearing aids are programmed for optimum speech audibility.

Further, any assumption that persons with hearing loss might find their way to a real-ear validated target through hearing aid self-adjustment is mistaken. For example, a two-channel hearing aid with 10 choices in each channel would provide a self-fit individual with 1 chance in 100 of falling within the NAL NL-2 target at only one input level.

If, by contrast, an individual had access to contemporary hearing aids and associated hardware/software, and the software offered four channels for soft, medium loud, loud, and very loud levels, and only 10 choices were available in each channel, these individuals would have a 1 in 1016 likelihood of matching the NAL NL-2 target at all four levels.

For those who believe the manufacturer’s “best-fit” software will solve the hearing aid programming problem, it has been shown that such software does not result in an approximation to an NAL target (Leavitt and Flexer, 2012; Abrams, et al, 2013; Sanders et al, 2015; Valente et al, 2018; Taylor and Mueller, 2023).

It has also been shown that persons with hearing loss are not able to accurately judge if their hearing aids are programmed for optimum speech audibility. Specifically, Humes et al (2017) reported 36 percent of highly educated adults with no cognitive deficits were willing to pay $1,800 per hearing aid for hearing aids that provided no improvement to their unaided listening abilities. In a follow-up study, this number was 37 percent (Humes et al, 2019). This

finding that nearly two-fifths of educated, individuals without dementia are willing to buy two non-amplifying, hearing aids totaling $3,600 should dissuade any belief that self-fit persons will consistently receive any aided benefit whatsoever.

A second overlooked variable in the studies by Glick and Sharma (2017, 2020) is that the cognitive resource reallocation and cognitive benefits reported were conferred only in individuals who met two criteria. First, all hearing aids were programmed to an NAL NL-2 verified target. Second, all subjects showed significant improvement in unaided versus bilaterally aided Quick Speech in Noise (QuickSIN) scores (Killion et al, 2004). However, the presentation level used for this QuickSIN test in both studies was 60 dB SPL, not the 70 dB HL value recommended by Killion et al for individuals with pure tone averages < 45 dB HL.

Any assumptions based on these four studies suggesting that wearing hearing aids, regardless of programing parameters or speech presentation levels, will provide a favorable cognitive benefit misrepresents the authors' findings. Cognitive protection is certainly not the case for those whose hearing aids are providing no benefit above the unaided response and possibly not for those receiving partial real-ear verified targets.

Until it can be shown that every hearing aid user is fit to a full NAL NL-2 real-ear verified target and that normal bilaterally aided QuickSIN scores have been obtained at a presentation level of 60 dB SPL, any statement of potential cognitive benefit must be questioned.

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DISCLAIMER

This article represents the author's views; it does not represent those of the Academy.

TABLE 1. Summary of Hearing Aid Verification Studies

AUTHORS (YEAR)	STUDY FINDINGS
Mueller and Picou (2010)	35-37% hearing health-care providers used real-ear measures to verify prescriptive targets
McCreery et al. (2013)	55% of hearing aids fit to school-age children did not meet +5 dB real-ear target criteria
Leavitt et al. (2017)	2.3% of adult hearing-aid fittings from 24 facilities throughout Oregon met this + 5dB criteria
Holder et al. (2018)	70.9 % of patients hearing aids did not meet real-ear verified NAL-NL2 target
Prentiss et al. (2020)	Less than 50% of surveyed audiologists observed hearing aid fittings that achieved real-ear targets
Sydlowski et al. (2021)	81% of patients seeking cochlear implants had hearing aids that did not meet NAL targets. When their hearing aids were programmed to NAL NL-2 targets, 16% showed improved word recognition into a range no longer considered for implant candidacy.

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Trends Across Time

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THE STUDENT ACADEMY OF AUDIOLOGY PERIODICALLY distributes surveys to AuD students to document their experiences during the externship application process. This article places previous published survey results in context with the most recent survey, administered in the summer of 2024, to inform students and relevant stakeholders, evaluate trends across time, and examine potential explanatory factors. Results suggest that further systematic standardization of the externship application process may be needed to continue to improve the experiences of AuD students and stakeholders.

BY IZABELA A. JAMSEK AND LILLIAN M. HERRING

Since the implementation of the AuD in 2007, efforts have repeatedly been made by all stakeholders (universities, clinical sites, accreditation organizations, and students) to document and improve student experiences and outcomes during the doctoral program. Of particular interest has been the application process for obtaining final-year clinical externships due to its highly individualized and open-ended nature.

The Student Academy of Audiology (SAA) disseminated three previous surveys to AuD student respondents with the objective to describe their experiences while applying for externships (Dubaybo et al, 2017; Lewis et al, 2019; Jamsek and Romero, 2023). SAA administered the fourth survey in the summer of 2024 to poll AuD students who applied for externships during the summer–fall of 2023. The newest survey contained both replica questions from the previous surveys and new follow-up questions to better situate results in context. By comparing applicable results with those from previous surveys, trends can be identified and used to guide further improvements to, or standardization of, the process.

Survey Cohorts

Each set of survey respondents can be characterized by the time period and survey methodology, as well as contextual events that directly modified the externship application process (FIGURE 1). Dubaybo et al (2017) evaluated responses obtained

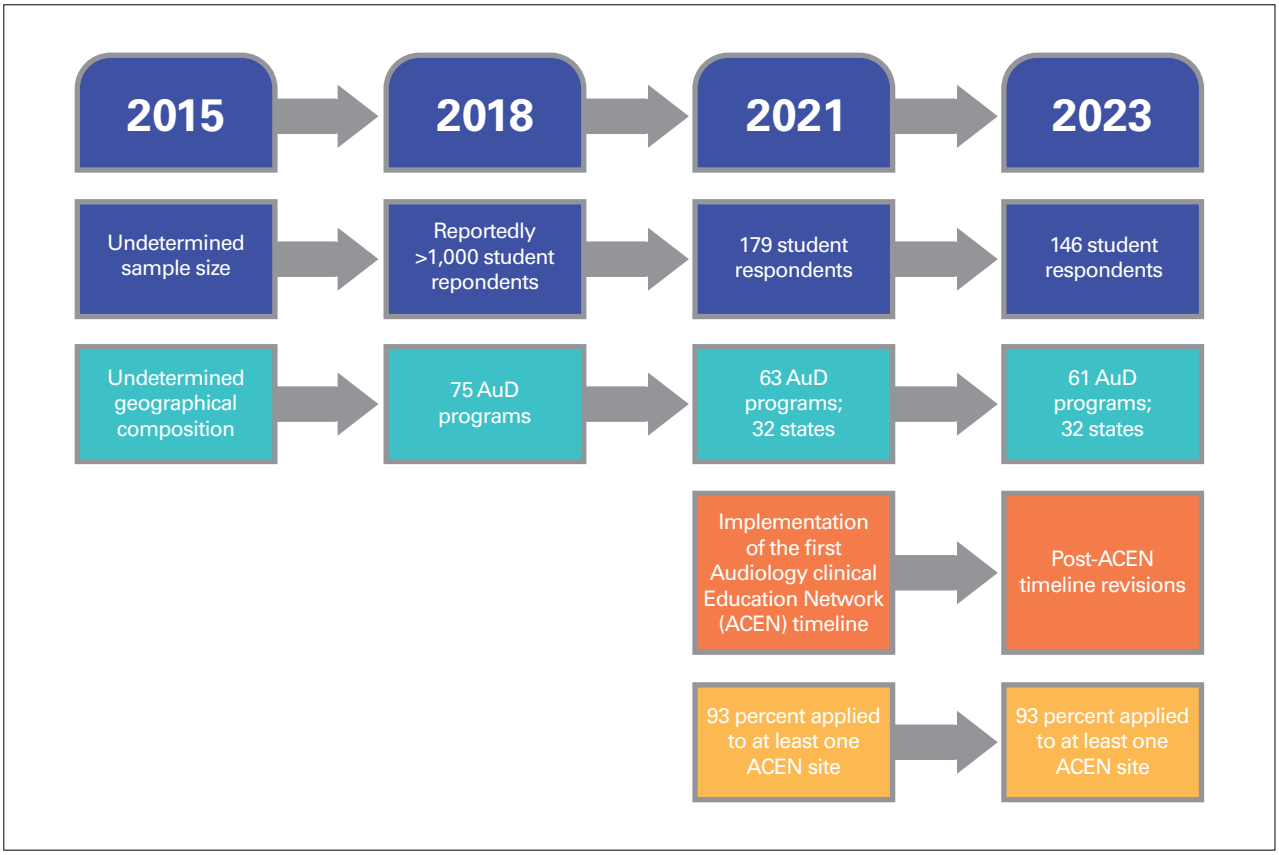


FIGURE 1. The Student Academy of Audiology Survey Cohorts and Significant Events

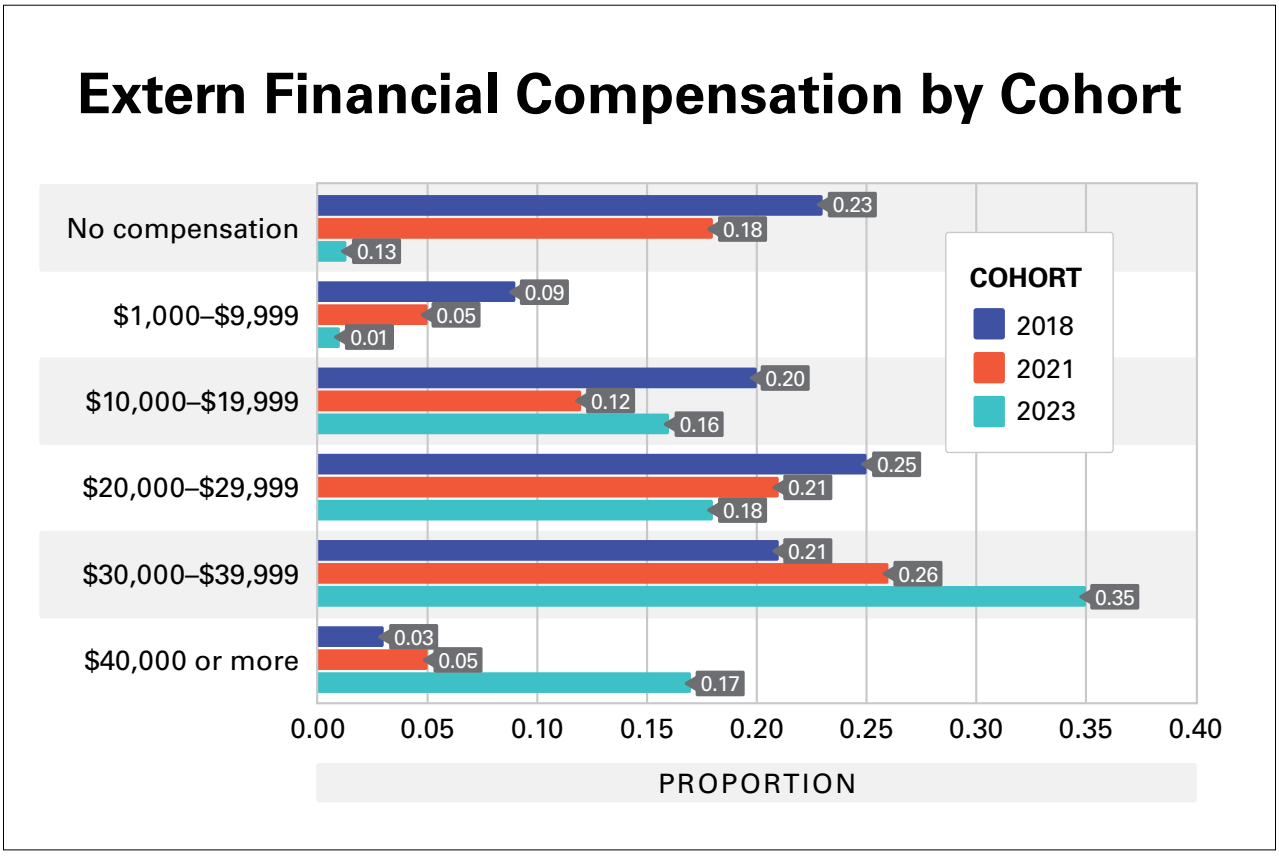
in 2015 from AuD students in general. Lewis et al. (2019) evaluated student responses during 2018 from extern applicants, externs, and recent graduates. Jamsek and Romero (2023) obtained responses only from students who applied for externships in 2021. Responses in the fourth survey were similarly obtained only from students who applied for externships in 2023. The first two surveys were holistic in their scope and analysis. The latter two surveys became more in depth to provide additional context and explanation to results; Jamsek and Romero (2023) performed a detailed qualitative analysis. This article will supplement the results primarily with additional quantitative data from both the 2021 and 2023 application cohorts.

These survey cohorts can also be systematically distinguished by the larger events that impacted the externship application process and experience—namely, the COVID-19 pandemic and the introduction of the Audiology Clinical Education Network (ACEN), a

grassroots collaboration among clinical sites, universities, and students to improve the application process for all stakeholders (www.audclinicaled.net). Since 2021, ACEN has enacted a standardized externship application process for participating clinical sites and has created a website to share resources, guidelines, and externship position postings. When comparing results from the 2015 and 2018 cohorts with the 2021 and 2023 cohorts, these events may explain some of the evolving trends.

As reported by Jamsek and Romero (2023), students in the 2021 cohort reported "eased financial burden and improved schedule flexibility from externship sites holding virtual interviews" after the onset of the COVID-19 pandemic. In addition, the 2021 cohort reported experiences from the inaugural implementation of the ACEN timeline prior to modifications and the creation of additional resources following stakeholder input. Comparing results between the 2021 and 2023 cohorts could reveal whether these two events resulted in persistent change to student experiences.

FIGURE 2. Proportion of reported externship financial compensation for the 2018, 2021, and 2023 survey cohorts.

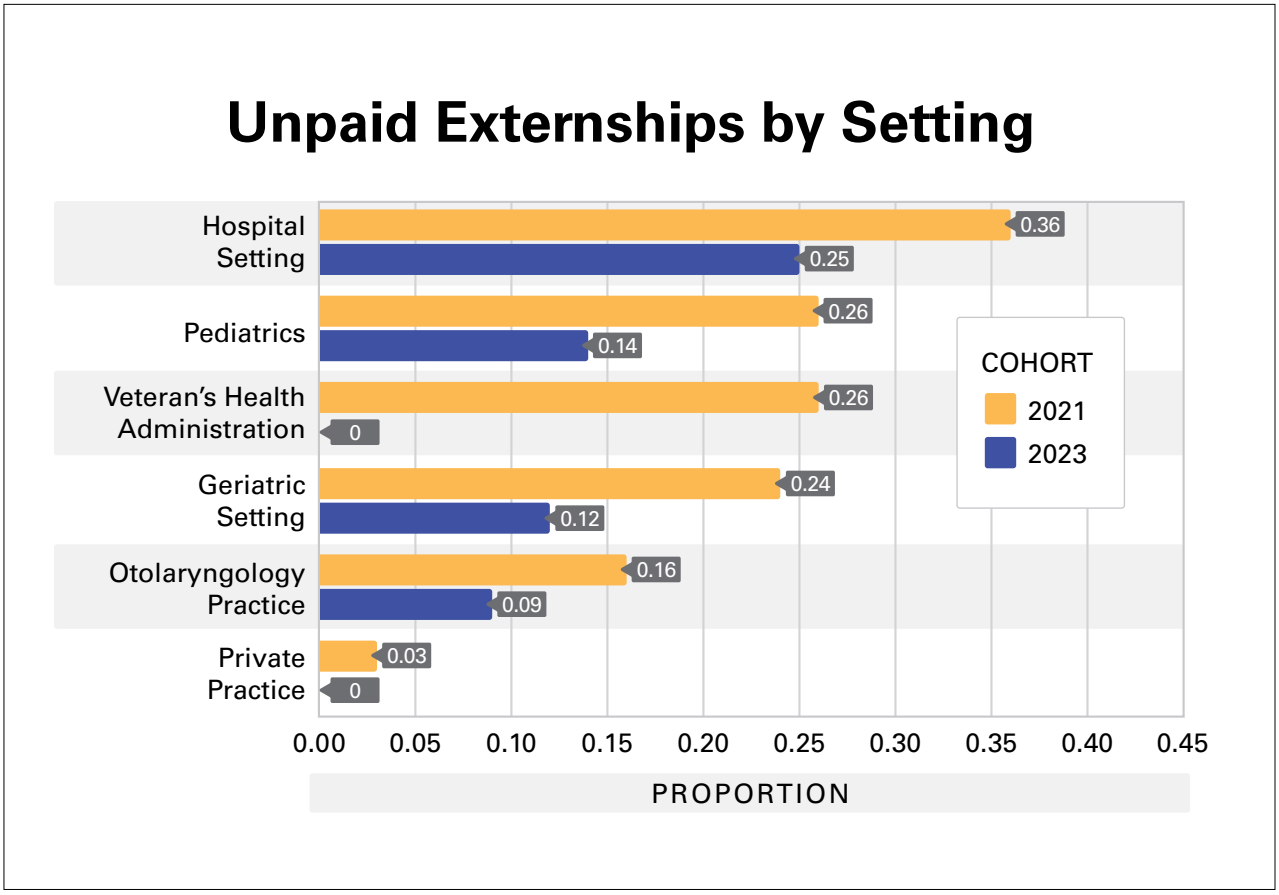


Application Choice: Location, Compensation, and Cost

The overwhelming majority of student respondents tend to apply to externships outside of the state of their AuD program (2015: 85 percent; 2021: 81 percent; 2023: 91 percent). In fact, 36 percent of the 2023 cohort applied only out-of-state. For some students, their AuD program may be outside of their state of residence; for others, including a greater number of externship site options than those available locally may give them a better chance of finding a position that best fits their needs and interests.

Another factor may be financial compensation for the externship position, as students typically continue to pay tuition during their externship. Presence of a stipend has been continuously rated as one of the top five factors considered by students when choosing potential externship sites throughout cohorts (2015: 54 percent; 2021: 69 percent; 2023: 73 percent).

FIGURE 3. Proportion of respondents reporting unpaid externships in each externship practice setting from the 2021–2023 cohort.



Indeed, 48 percent of 2023 respondents applied only to externship sites that offered compensation, and 42 percent applied only to positions that offered more than the minimum wage for a year of full-time work. Of students who accepted an out-of-state externship position, a higher proportion (92 percent) received some amount of compensation compared with students who accepted in-state externships (80 percent).

However, the majority of students in the 2023 cohort who applied both in-state and out-of-state ended up staying in-state for their externship (55 percent). This trend is consistent with students increasingly rating site location as one of their top five factors when choosing potential externship sites (2015: 60 percent; 2021: 74 percent; 2023: 85 percent). This could be due to higher competition for prestigious out-of-state clinical sites or student preference for remaining in the state of their AuD program. Indirect advantages of in-state externships that could balance out lower pay include benefits such as not having to manage a cross-country move, having family and community in the area, and using local networks to find an ideal position.

Few students (13 percent) in 2023 accepted an externship position without any financial compensation (FIGURE 2), but those who did were more likely to have more of their indicated audiology interest areas (eight areas: behavioral diagnostics, electrophysiology, amplification, implantable devices, aural rehabilitation, vestibular, research, or fill-in-the-blank option of their choice) included in their externship position than those in positions that offered $20,000 or more for the externship year. It is likely that sought-after externship positions offering more specialty areas of audiology may be able to attract students based on the opportunities available during the externship, despite offering lower levels of compensation.

> Forty-eight percent of 2023 respondents applied only to externship sites that offered compensation.

However, fewer unpaid positions and those offering less than $30,000 were reported proportionally in the 2023 cohort compared with 2018 (FIGURE 3). In 2021, private practices were

reported to have the fewest unpaid positions; in 2023, students who reported accepting externships at private practices and Veterans Health Administrations (VAs) all received some amount of compensation (FIGURE 3). Greater or equal proportions of externships offering $30,000 or more from 2021 to 2023 were also observed across comparable placement types (otolaryngology, private practice, VAs, geriatric, pediatric, and hospital settings). Some of the difference between the latter two cohorts may be due to the COVID-19 budget freezes that were still in place in 2021; however, the overall trends of increasing student compensation from 2018 to 2023 may also reflect years of stakeholder advocacy for students, as well as student self-advocacy. Explicit examination of contributing factors should be monitored in the future to better understand this trend. Clinical sites interested in having externs may have to adapt to the changing perspectives and availability of students by providing sufficient financial compensation; based on these trends, it may be useful to develop resources for clinical sites that would support them in advocating for student compensation during externships to their administrators and financial officers.

An additional financial factor during externship applications is the cost of applying; the 2015 cohort reported a range up to $2,000 for a student to apply, interview, and visit potential externship sites. Qualitative results from the 2021 cohort indicated that application costs may have decreased because of the increasing ability and willingness of clinical sites to facilitate virtual interviews and site visits as a result of the pandemic. In fact, in 2023, most students did not spend more than $100 during the application process, but those costs rose when students applied out-of-state (82 percent of students reported no cost or less than $100 in expenses when they applied only in-state, whereas 71 percent of students who applied out-of-state indicated the same). Future work should investigate student and clinical site perspectives of students being able to visit sites in person, as Jamsek and Romero (2023) reported a mix of student preference for virtual compared with in-person visits for their decision-making.

Application Choice: Number of Applications

In the 2015 cohort, the majority of students (63 percent) reportedly applied to 5–10 externship positions. The 2021 cohort reported a wider distribution (49 percent) ranging from 1 to 20 applications. Both the 2021 and 2023 cohorts had a mean and median of 8 applications. For students who applied to more than 10 sites, Jamsek and Romero (2023) reported the percentage of extended offers by clinical sites successively decreased, suggesting that students applying to more than 10 sites may have needed to send out more applications than they planned.

Contrary to assumptions made by Jamsek and Romero (2023), students in 2023 who applied to more than 10 externship sites had similar distributions of extended offer percentages and rate of late applications as students who applied to fewer sites; however, high-applying students did have a higher proportion of their indicated audiology interest areas included in their final

externship position. This result places previous trends in context, suggesting that students may not need to apply to up to 20 externship sites to be successful in obtaining an externship, but if specific students are seeking a wider variety of audiological practice in an externship, they may need to apply to more than 10 sites due to higher competition for those sites, or in order to find the right externship fit.

Consistent with Jamsek and Romero (2023), on average, students who applied only in-state (9 percent of respondents) applied to fewer sites overall (mean of 5 sites), but had a higher percentage of extended offers, as well as fewer later applications than students who applied both in-state and out-of-state. These results may indicate two distinct methods for applying to externships: students who apply locally with few applications and students who apply out-of-state with more applications over a longer time period. It is possible that local interpersonal connections via university or community lead to a higher confidence in obtaining an externship when compared with greater competition and less individual familiarity with applicants for out-of-state externship sites.

Decision-Making: External Pressure

The 2021 cohort faced a novel externship application process for several reasons, including the pandemic and introduction of ACEN. The ACEN standardized application timeline was intended to empower student externship choice and decrease pressure for students to accept the first offer by providing a set period for student decision-making. However, survey results from the 2021 cohort described initial uptake issues with the timeline that may have contributed to student stress and difficulty that year, including clinical sites deviating from agreed-upon guidelines. In 2023, the ACEN timelines were modified twice based on student, clinical site, and university feedback, and all stakeholders had two years of experience to better understand and prepare for the process. As hoped for, a smaller proportion of students in the 2023 cohort (43 percent) felt pressured to take the first placement offered to them than both the 2015 (>50 percent) and the 2021 (54 percent) cohorts.

However, only 15 percent of student respondents in the 2021 cohort reported feeling no pressure to accept an externship offer, compared with 35 percent of students in the 2018 cohort. Interestingly, 32 percent of students in the 2023 cohort reported no pressure to accept an offer, similar to 2018; aspects of the pandemic could have been at play in 2021, as well as the uncertainty of participating in a new standardized

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externship application process via ACEN. The consistent primary factor driving pressure to accept an offer is the fear of not receiving another offer (2018: 57 percent; 2021: 57 percent; 2023: 59 percent). However, all of the remaining aspects of pressure (externship site, university, timeline, and friends and family) also proportionally increased with each surveyed cohort. It is possible that AuD students overall, despite improvement efforts, feel increasing anxiety surrounding externship applications. This could be due to high importance placed on the externship for degree completion and future job opportunities, or simply due to aspects of the application process itself. Additional work should be done to investigate and reduce students' perceptions of pressure throughout the externship application process.

Preparation and University Support

Although most students surveyed had experience applying to graduate school or jobs, for many, applying to an externship is the first clinical job application they have completed. As such, guidance on externship applications is common, but

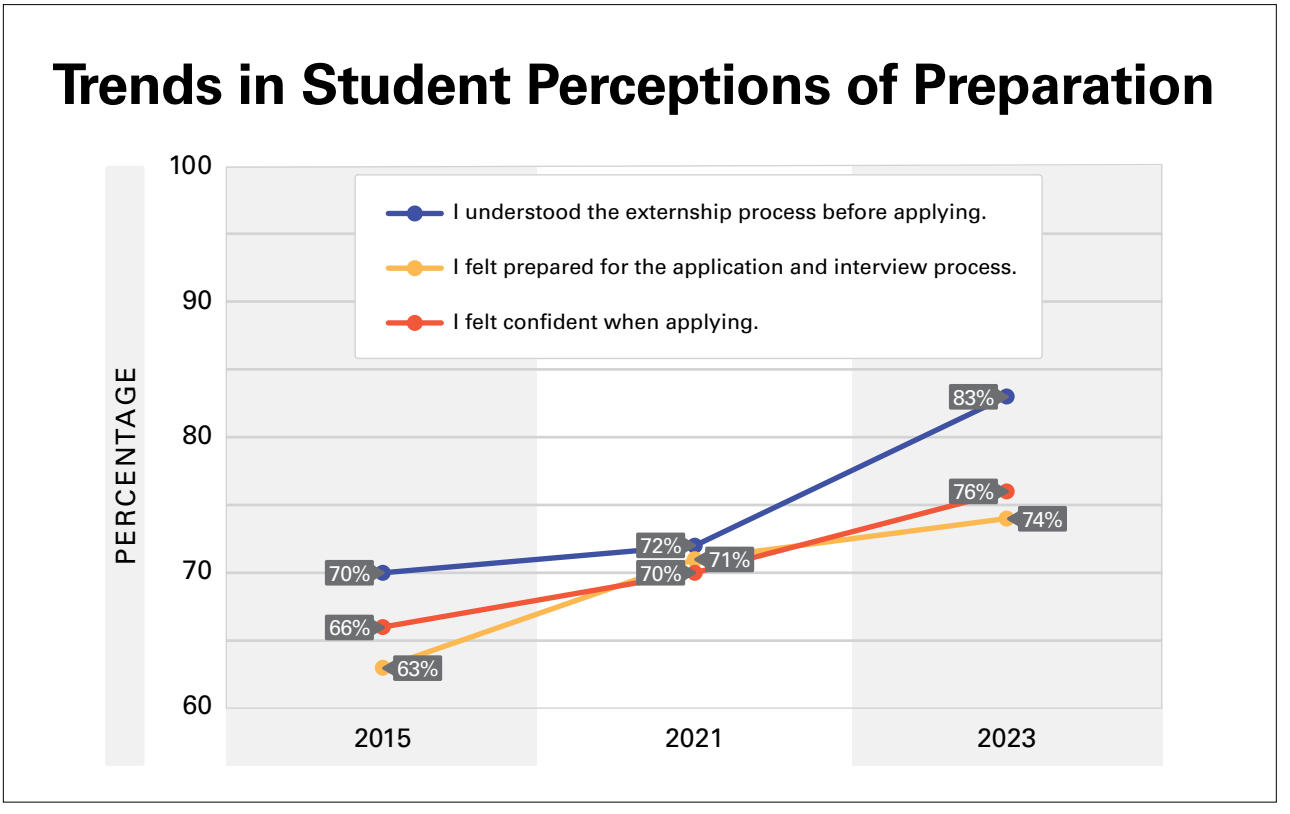

FIGURE 4. Proportion of student respondents across the 2015, 2021, and 2023 cohorts who agreed with the described statements regarding preparation for the externship application process.

not standardized, in AuD programs. The 2015 cohort reported that 86 percent of their student respondents had a dedicated externship coordinator at their AuD program; however, the duties of a coordinator in student preparation are not defined and vary with each university. Without one, students have to interface directly with clinical sites and universities, which may contribute to some of the communication issues previously reported between sites and students (Jamsek and Romero, 2023). In the 2023 cohort, 80 percent of students reported having an externship coordinator, which amounted to 72 percent of universities. Students have generally reported increased preparedness, understanding, and confidence as they start externship applications over time (FIGURE 4).

This increase may be due to training and preparation either provided by AuD programs or sought by students themselves. Past surveys have reported the SAA and Academy website resources (such as HEARCareers and blog posts) as helpful independent resources (Lewis et al, 2019; Jamsek and Romero, 2023). Students in the 2023 cohort indicated that a one-time training session held by their AuD program was the most common organized externship preparation (47 percent), rather than multiple sessions (37 percent) or a dedicated course (15 percent). Only one university in the sample reportedly had no standardized externship application training. Some students also independently volunteered that faculty members or the coordinators themselves would hold periodic one-on-one meetings to assist students with the process. Greater widespread training and resources across universities may continue to increase the proportion of prepared, professional externship applicants and may reduce additional student workload or communication breakdowns between clinical sites and students. In addition, determining both cohort-level

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and individual-level accreditation knowledge standards to begin the externship application process may be beneficial to standardize university preparation.

Considerations

Respondent samples obtained via online survey systematically differ across surveys in both measurable and immeasurable ways that cannot be fully accounted for in analysis. For example, it is possible that the lower proportion of unpaid externships reported in the 2023 cohort than the 2021 cohort are a result of more students being unwilling to report that they accepted an unpaid externship. Such are the inherent limitations of convenience survey samples. However, the four surveys summarized in this article have had similar methodologies and recruitment strategies to increase the ability for robust comparison; they were created collaboratively within SAA and the Academy and distributed via email to SAA membership and AuD programs.

Conclusion

Much has changed since the introduction of the clinical externship; many stakeholders are actively working to improve and clarify the application process for everyone involved. Some of these changes have been made independently and outside the classroom, primarily by students, clinical sites, and related organizations such as SAA and ACEN. Although the student experience seems to largely be improving over time (from compensation to preparation), as a whole, these surveys indicate an opportunity for academic programs and accreditation organizations to provide unified guidance around this process for all stakeholders to further improve this aspect of AuD education. Most pertinent areas that could benefit from standardization seem to be around university preparation, financial compensation, and reducing pressure on students around this degree requirement.

Acknowledgments

Many thanks to every student who contributed to these surveys; your willingness to openly share your experiences is valued and appreciated. Thanks to SAA, particularly Rachael Sifuentes, for the support to repeatedly investigate these questions for students to improve their experience.

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Lillian M. Herring is a fourth-year extern at Hearing Associates in Parker, Colorado, and an AuD candidate at the University of Pittsburgh. She is a member of the 2024–25 SAA Board of Directors, serving as the Member Relations chair, and is a student liaison to the ACEN Steering Committee.

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Medicare Physician Fee Schedule: Payment Policy History and Updates

By Susan Von Dollen and Anna M. Jilla

The Problem

Congress has tried to create a sustainable and stable payment system for Medicare. In 2015, Congress eliminated the flawed Sustainable Growth Rate (SGR) formula that served for years as the underpinning of Medicare payment, in an effort to avoid large payment cuts for Medicare providers. Congress sought to move from fee for service, which incentivized volume, to payment tied to quality. Passage of the Medicare Access and CHIP Reauthorization Act (MACRA) of 2015 shifted payment to a quality payment focus and supported the implementation of alternative payment models.

Congress also sought to create a more stable payment system that was not subject to the large cuts inherent under the former SGR formula. The SGR was an expenditure target formula. Medicare provider payments were cut if the growth in services exceeded

expenditure targets. Unfortunately, the current payment system created under MACRA has been unable to avoid large payment cuts, and payments are not adjusted for inflation.

Background

Since 1992, Medicare payment to clinicians and certain suppliers has been made under the Medicare Physician Fee Schedule (MPFS). Prior to 1992, Medicare payment was based on the reasonable charge method, a payment method that had been in place since 1966. Services paid under the MPFS are federally funded and furnished in various settings, including clinician offices, hospitals, ambulatory surgical centers, skilled nursing facilities and other post-acute care settings, hospices, outpatient dialysis facilities, clinical laboratories, and beneficiaries' homes. Payment is also made to several types of suppliers for technical services, most often in settings for which no institutional payment is made.

For most services furnished in a clinician's office, Medicare makes payment to providers at a single rate based on the full range of resources involved in furnishing the service. If you are enrolled as a Medicare participating provider, you agree to accept the Medicare assigned rate as payment in full. In contrast, MPFS rates paid to clinicians and other billing practitioners in facility settings, such as hospital outpatient departments or ambulatory surgical centers, reflect only the portion of the resources typically incurred by the practitioner in the course of furnishing the service. This is because the facility incurs overhead and equipment costs.

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Payments are based on the relative resources typically used to furnish the service. Relative value units (RVUs) are applied to each service for work, practice expense, and malpractice expense. These RVUs become payment rates through the application of a conversion factor. Geographic adjusters are also applied to the total RVUs to account for variation in practice costs by geographic area. Payment rates are calculated to include an overall payment update specified by statute.

Short-Term, Last-Minute Fixes

Historically, Congress has enacted many short-term fixes to prevent or partially restore MPFS reimbursement cuts. For example, Congress approved legislation each of the last four years to partially restore impending payment cuts. In

December 2024, the 118th Congress failed to approve legislation that would partially restore a 2.83 percent MPFS payment cut slated to take effect January 1, 2025. The 119th Congress, which began on January 3, 2025, will need to restore the near 3 percent Medicare payment cut for 2025, as of publication, *Congress was still considering legislation*. Please check www.audiology.org for updates on Congressional action to mitigate payment cuts.

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2025 Honors and Awards

Honors of the Academy

Awarded to an audiologist for their exceptional support of the field of audiology and/or the patients we serve by focusing on issues that directly affect the profession and/or consumers with hearing loss and balance disorders. The recipient shall have made notable contributions in one or more of the following areas: outstanding clinical practice and/or patient care; teaching or mentoring; advocacy; research; and/or exceptional service to the profession of audiology. Honors of the Academy can be awarded to more than one audiologist.

Barbara Weinstein, PhD

Dr. Barbara Weinstein is a global leader in audiology, renowned for her pioneering work in geriatric audiology, which has transformed the understanding and management of hearing loss in older adults. Her development of the Hearing Handicap Inventory and research on the links among age-related hearing loss, social isolation, and cognitive decline have greatly impacted the field.

As a professor and founding executive officer of the AuD Program at the City University of New York, Dr. Weinstein has mentored future audiologists and advanced curricula focused on health literacy and patient-centered care. She has also advocated for innovations like over-the-counter hearing aids and telehealth. Dr. Weinstein has written hundreds of publications and textbook chapters and received numerous awards, including the Distinguished Alumni Award from Columbia University and the Louis DiCarlo Award from the American Speech-Language-Hearing Association.

Patricia Stelmachowicz, PhD

Dr. Patricia Stelmachowicz is receiving this honor posthumously honored for her pioneering contributions to

pediatric audiology. As director of audiological services at Boys Town National Research Hospital for more than 30 years, she revolutionized early hearing detection and intervention. Her research on amplification strategies for infants and young children set a global standard for clinical practice, benefiting children worldwide.

Dr. Stelmachowicz was also a dedicated educator and mentor, training future audiologists and researchers. With over 80 peer-reviewed publications, she earned widespread respect and recognition, receiving the Academy's 2004 Research Achievement Award. Her leadership roles within professional organizations influenced policies that improved outcomes for children with hearing impairments.

Jerger Career Award for Research in Audiology

Awarded to an individual for innovative research contributions in the field of audiology/hearing and balance sciences, whose work has had groundbreaking impacts on the field and/or practice of audiology. The award is named for the late James Jerger, PhD, one of the Academy's founders.

David Moore, PhD

Dr. David Moore's groundbreaking research has advanced the understanding of auditory processing disorders (APD) and hearing disorders, particularly in children. His studies on the neurobiological foundations of APD have led to better diagnostic tools and therapeutic interventions, significantly improving the quality of life for those affected. Dr. Moore's work is frequently cited, and he has received numerous honors for his contributions. He serves on several editorial boards and has mentored graduate students, fostering ongoing research. Currently, his research focuses on hearing disorders in children, new hearing devices, translating basic research into clinical applications, and the genetics of hearing difficulties. Dr. Moore is also exploring large-scale, internet-based studies to further deepen understanding in these areas.

Marion Downs Pediatric Audiology Award

Awarded to an audiologist for exceptional contributions in pediatric audiology either as an educator or mentor, clinician, advocate, or scientist. The award is named for the late Marion Downs, considered by many as the "mother of audiology."

Jace Wolfe, PhD

Dr. Jace Wolfe is a senior vice president of innovation at the Oberkotter Foundation. Dr. Wolfe was described by one of his nominators as a "pediatric audiology superhero," and his research, teaching, and clinical service have had a significant impact on pediatric audiology worldwide.

He is author/editor of textbooks and book chapters in cochlear implants and pediatric audiology. His research is translational and informs the practice of pediatric audiology. Dr. Wolfe was described by his nominators

as "personable, approachable, and highly professional" and is a sought-after speaker both nationally and internationally. He has educated future audiologists as an adjunct faculty member at several universities, including Salus University and The University of Oklahoma.

Clinical Excellence in Audiology Award

Awarded to a clinical audiologist whose dedication and clinical excellence have resulted in improved quality of life for individuals with hearing or balance dysfunction, and who has distinguished himself or herself through innovation in service provision, superior clinical education, and/or effective efforts to educate and inform the public about prevention and intervention of hearing loss, dizziness, and/or tinnitus.

William Shapiro, AuD

Dr. William Shapiro has been a clinical audiologist for more than 45 years and serves as co-director of the Clinical Cochlear Implant Program at New York University, alongside his private practice. His clinical success is driven by his research, which has developed best practices in cochlear and auditory brainstem implants. Dr. Shapiro played a key role in creating clinical protocols and expanding cochlear implant candidacy, increasing access for individuals with hearing loss. He also developed a unique training program for cochlear implant audiologists and is a faculty member at the Institute of Cochlear Implant Training. Beyond clinical work, Dr. Shapiro serves on advisory boards for hearing technology manufacturers and audiology organizations. Described as a "pioneer" by colleagues, his research and publications have shaped the field.

Early-Career Audiologist Award

Awarded to an individual with less than 10 years of experience who has made outstanding contributions to the profession of audiology. The recipient shall have made notable contributions in one or more of the following areas: outstanding clinical practice and/or patient care; teaching or mentoring; advocacy; research; and service to the profession of audiology.

Riley DeBacker, AuD, PhD

Dr. Riley DeBacker earned his doctorate in audiology in 2020 and a PhD in 2021, both from the Ohio State University. Dr. DeBacker is a researcher at the National Center for Auditory Rehabilitative Research (NCRAR) in Portland, Oregon, and is passionate about audiology, diversity, and inclusion. He founded Queer Empowerment for Audiologists, Researchers, and Students, and serves on the Mentoring Core and Diversity, Equity, and Inclusion Committee at NCRAR. Dr. DeBacker is also managing director of Hear for Ears Free Audiology Clinic and has served in various roles with the Academy.

He has published 15 peer-reviewed articles and focuses his research on auditory deficits in HIV+ individuals exposed to antiretroviral therapy. A respected educator, he has taught at multiple universities and

received the Excellence in Undergraduate Research Mentoring Award from Ohio State in 2021.

Outstanding Educator Award

Awarded to an individual who has made significant contributions to audiology through his or her dedication and skills to the education of audiology students. The individual may be a clinical or academic educator but should be a university lecturer, faculty, or adjunct faculty member of an accredited AuD/PhD program in the United States.

Stephanie Sjoblad, AuD

Dr. Stephanie Sjoblad is a professor at the University of North Carolina, where she teaches several courses, including a business course described as "famous" by a nominator. Student feedback highlights the course's significant value in preparing them for practical aspects of the audiology field, including developing a business plan. Dr. Sjoblad's interactive teaching style fosters critical thinking and supports the development of clinical skills.

As a clinical preceptor for AuD students, she models best practices and facilitates skill growth. Beyond the university, her presentations and publications reflect her commitment to clinical education. Dr. Sjoblad has also held numerous leadership roles at the national, state, and university levels. As one nominator summarized, Dr. Sjoblad inspires students to carry the torch of best practices into their careers.

International Award for Hearing

Awarded to an audiologist and/or hearing or vestibular scientist who lives and works outside of the United States who has provided outstanding contributions to the profession of audiology in a clinical, academic, research, advocacy, or professional capacity.

DeWet Swanepoel, PhD

Dr. DeWet Swanepoel is a distinguished audiologist known for advancing global hearing-health care, especially in underserved areas. His research focuses on improving access to audiological services through innovative technologies like mobile and telehealth solutions. As co-founder of hearX Group, he has developed health and digital hearing assessment tools, making health care more accessible in low-income communities.

With over 280 peer-reviewed publications, six textbooks, and leadership roles such as editor-in-chief of the *International Journal of Audiology*, Dr. Swanepoel has contributed to research, education, and policy. He also leads the World Health Organization Collaborating Centre for the Prevention of Deafness and Hearing Loss at the University of Pretoria.

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