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AUDIOLOGY

TODAY

The magazine of, by, and for audiologists

COGNITIVE DECLINE AND HEARING LOSS

CONFESSIONS

of a Private Practice Owner

Working with Your Spouse

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Sep/Oct 2016
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Cognitive Decline and Hearing Loss Since communication difficulties are one of the earliest signs of dementia, audiologists are poised to make timely and appropriate referrals, which can improve long-term outcomes by allowing earlier diagnosis and management of cognitive decline.

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Confessions of a Private Practice Owner: Working with Your Spouse Our practice has enjoyed both enormous success and colossal failure. Our marriage has been in the center of all of that, and I find comfort knowing we are not alone; so many of my friends and colleagues who own their own practices work with their spouses and/or family members.

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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 fabryd@icloud.com.

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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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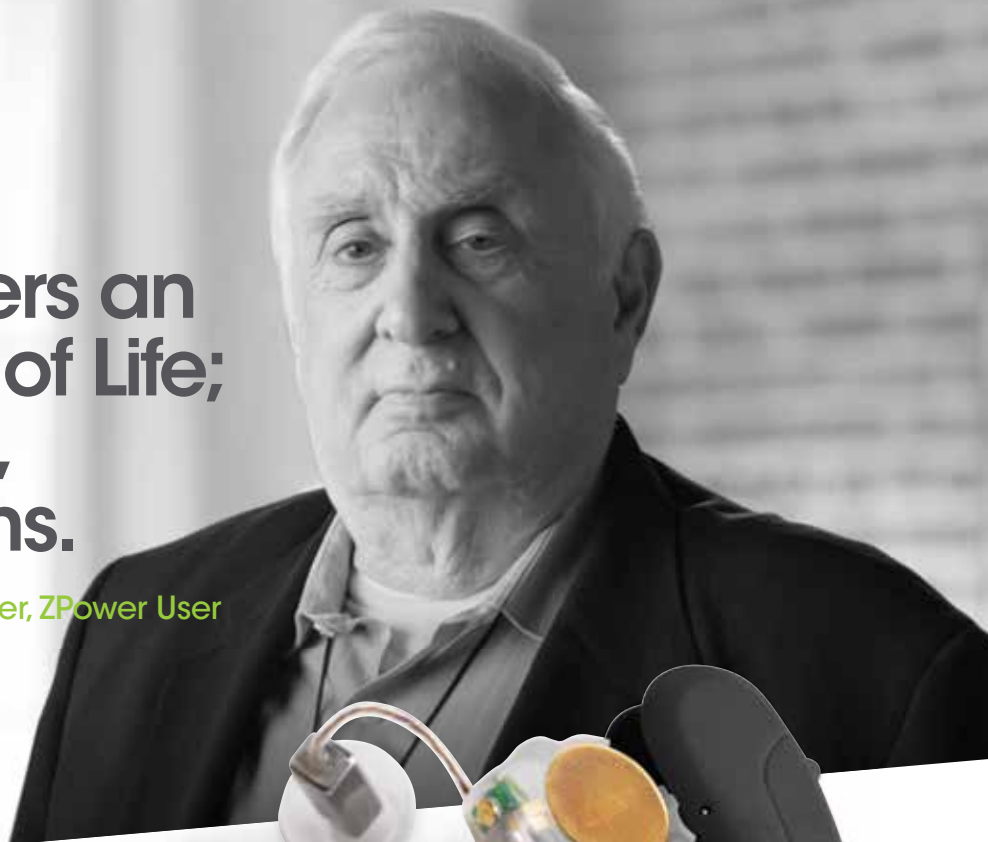
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NAS Report on Impact on Audiology

In June, the National Academy of Sciences (NAS),

Engineering and Medicine released a report titled, *Hearing Health Care for Adults: Priorities for Improving Access and Affordability*. This report was the result of a year-long study of the current issues that impact access to hearing care and the perception that hearing care is expensive. It comes on the heels of the report released last October by the President's Council of Advisors on Science and Technology (PCAST) that addressed similar questions.

The NAS study was funded by federal agencies such as the Department of Veteran's Affairs, the National Institutes of Health (NIH), the Centers for Disease Control and Prevention, and the Food and Drug Administration (FDA), along with the consumer group the Hearing Loss Association of America. The committee included audiologists, physicians, epidemiologists, consumers, and attorneys, among others. The report, available online, includes a dozen recommendations the committee believes will improve access to hearing care and make it more affordable.

These recommendations are directed to federal and state agencies, consumer organizations, as well as the professional organizations whose members provide hearing care. The recommendations include the call to strengthen efforts to collect, analyze, and disseminate population-based data on hearing loss, treatment effects, and patient outcomes, to align and promote best practices

across the continuum of hearing care, to assure underserved and rural populations have access to hearing care, to include hearing health in regular medical visits, and to develop better methods to inform the public regarding hearing health care.

There were also recommendations that have the potential to impact audiologists more directly, including one to develop a category of hearing devices for mild-to-moderate hearing loss that can be purchased over-the-counter, to develop and implement an open-platform approach to hearing aids that allows any provider, or the patient, to program a device, and to encourage Centers for Medicare and Medicaid Services to develop mechanisms that assure hearing care is a covered service for beneficiaries, and to provide reimbursement to audiologists for aural rehabilitation services.

The NAS report is simply a series of recommendations and carries no requirements for any change in hearing care delivery. However, the fact that this study was sponsored by numerous federal agencies, including the NIH and the FDA, and that the panel who developed the report included audiologists and physicians, and that the invited speakers represented a cross section of professionals involved with hearing care as well as consumers, necessitates that we pay attention to the recommendations and monitor the landscape for any possible changes. In fact, the FDA held hearings in April on



changes to the hearing aid and PSAP regulations. It should come as no surprise if they were to consider the NAS recommendations in any proposed changes.

I encourage you to read the NAS report and to consider the impact on audiology. The report provides both challenges and opportunities for our profession, and we will have to be prepared to address both moving forward. 🗣️

A handwritten signature in black ink, appearing to read "Ian M. Windmill". The signature is fluid and cursive, written over a white background.

Ian M. Windmill, PhD
Board Certified in Audiology
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Is It Time to Panic?

By James Jerger

Kenneth O. Johnson, longtime executive secretary of the American Speech Language-Hearing Association (ASHA), from 1958 to 1980, often said to me that his biggest problem was saving audiologists from themselves. He thought that some of the positions we took were not always in our best interest, and some of our concerns were not insightful relative to the greater picture among health-care professions. His cautions have been reawakened by a series of e-mails I have recently received from colleagues expressing serious concerns about four current issues:

- The consequences of PCAST, the President's Council of Advisors on Science and Technology
- The impact of PSAPs, personal sound amplification systems
- The current trend in which manufacturers are buying large numbers of private practices
- Price competition from big box stores

Some colleagues, especially those in private practice, are forecasting doom and disaster unless someone takes vigorous counter-action—and soon. Colleagues, you can fight change, but you cannot win! “All is flux, nothing stays still.” You cannot freeze the status quo, as the winds of change sweep everything before them.

I suggest that we all take a deep breath and ask how we can adapt to the kinds of changes that are going to happen. Have we, for example, become too dependent on selling hearing aids? Barry Freeman, PhD, past president of the Academy, thinks so.

Audiology has become too focused on product sales... products should not be the center of the audiology universe. We need to go back to our historical roots (Shaw, 2016).

Well, if we do go back to our historical roots, no one was selling hearing aids. Between 1925 and 1979, the roots of the profession were planted and nourished by pioneers like Cordia C. Bunch, Raymond Carhart, Willis Beasley, Harvey Fletcher, Norton Canfield, Ira Hirsh, Hallowell Davis, Richard Silverman, Moe Bergman, and many others. Before 1979, the ASHA code of ethics explicitly forbade any of its members from dispensing products to the public. Yet the profession thrived, making substantial advances in auditory training, educational audiology, diagnostic audiometry, pediatric evaluation, auditory processing disorder, evaluation of balance disorder, tinnitus evaluation and therapy, assistive listening devices, cochlear implants, and hearing conservation. It was a period in which there was active research on many fronts directed at a better understanding of the nature of hearing and hearing loss, and searching for better tools and techniques of evaluation and treatment.

But there was also constant pressure from ASHA members to revoke its ban on hearing aid sales. Ken Johnson felt the brunt of this pressure in his role as executive secretary. He was initially opposed to the change, making the strong argument that in no other health care profession was the professional allowed to share in a financial transaction involving the dispensing of a physical product. In his view, there was always the implicit need to guarantee impartiality in the choice of treatment. He often said to me that, if audiologists were allowed to sell hearing aids, eventually they would come to regret it. Prescient?

In 1979, ASHA did, indeed, rescind its ban, setting in motion a profound series of changes in our profession, the effects of which are still being felt. Dr. Brian Taylor makes the point well.

When you compare it with dentistry, vision care, and the MD-driven specialties, I think hearing care is pretty unusual in how much it is driven by manufacturers and devices” (Shaw, 2016).

Dr. Barry Freeman also puts it succinctly:

Products should not be the center of the audiology universe (Shaw, 2016).

Blaming the big box stores is not the answer either. Dr. Aymn Amlani, observes that

The most disruptive competition to an audiology practitioner is an ENT practice within 10 miles. You're not competing with Costco; you're competing with the ENT down the road...(Shaw, 2016).

Clearly there is no better time than now to mend our fences with otolaryngology. We need to partner with them, not compete against them. Somewhere along the way we seem to have lost the close ties with medicine established decades ago by our pioneering forefathers.

I am not suggesting that we renew the ASHA ban on dispensing. I am suggesting that, in order for private practice to survive, there must be a

conscious effort to broaden its base to include the full array of audiological services to the public, in order to become less dependent on hearing aid sales.


I, personally, have never been more optimistic about the future of our profession. But we must understand that change is inevitable, and learn how to adapt to it. **A**

James Jerger, PhD, is a distinguished scholar-in-residence, emeritus, for the School of Behavioral and Brain Sciences at the University of Texas in Dallas, Texas. He is now retired in Lake Oswego, Oregon, and can be contacted at jjerger@utdallas.edu.

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Behind the Scenes Support for Your Practice

By Erica Hansen

There are behind-the-scenes champions on the rise in the audiology world. Many may not have worked in audiology before. Many may have some formal training or as little as a high school degree. However, these support personnel are conserving audiologists' time while increasing access to services and saving their employers' money. They are audiology assistants.

The use of assistants in health care has been around for decades but in recent years has become a growing trend. According to the Bureau of Labor Statistics, employment of medical assistants is projected to grow 23 percent from 2014 to 2024. This is much faster than typical for the average occupation (2016). The increased demand for medical services, in part due to the aging baby-boom population, is expected to continue. As medical practices expand, the hiring of more assistants to perform administrative and clinical duties allows physicians to see more patients. Such growth is paralleled in other doctoring professions including optometrists, physical therapists, and dentists.

In audiology, a similar trend is present. Hospitals, veterans administrations, and private practices are hiring audiology assistants to help meet patient demands for audiology services. Strong cases have been made that the role of the audiology assistant may help to address a

coming shortage of audiologists. The support of audiology assistants may help to divert the development of alternative service delivery models that may lower the quality of care. In addition, the support of audiology assistants may help prevent other health-care providers from stepping in and taking over the audiologists' scope of practice (Freeman, 2009). Several states now include regulation and/or license information for audiology assistants. In addition, our professional organizations are looking at developing a membership category specifically for audiology assistants.

How can an audiology assistant benefit your practice? There are a variety of clinical and administrative tasks that an audiology assistant can be trained to perform. It is estimated that approximately 30 percent of an audiologist's day is spent doing "non-professional activities" (Byrne and Kasewurm, 2001). Some tasks include ordering hearing aids, cleaning hearing aids, performing minor repairs, infection control between patients, ordering and stocking supplies, and answering basic phone questions. In addition, there are several innovative ways to use an audiology assistant to enhance patient care and satisfaction:

Provide Cohesion for the Office

Audiology assistants usually perform both administrative and clinical duties, including administering computer applications, setting up for appointments, greeting patients, ordering and checking in hearing aids, and serving walk-ins. Therefore, they naturally lend themselves to serving as a liaison between the front office staff and audiologists. While audiologists are busy in clinic rooms, an audiology assistant may be more available outside the clinic room to help provide more timely service to patient issues that may arise. Cohesion within an office is valuable for effective communication and successful teamwork.


Provide Preventative Services

Preventative health-care services have the potential to not only reduce the increasing demands on health-care providers, but more importantly prevent compounding issues for our patients by early detection of problems. Providing hearing screenings or routine hearing aid maintenance are tasks an audiology assistant can provide. In addition to providing an excellent service to the patient, these practices can increase patient satisfaction as well as reduce demands on providers.

Increase Aural Rehabilitation

We all know that the penetration rate of the market for potential hearing aid users is low. Estimates show approximately 20 percent of those who could benefit from amplification seek treatment (Kochkin, 2005). It is argued that the main barrier is not cost. This group would instead benefit from counseling, auditory education, and increased support (Knudson et al, 2010). The use of assistants could potentially free up an audiologists' time to have more availability to expand aural rehabilitation programs to potentially increase uptake in these markets.

Conclusion

An audiology assistant can benefit your practice in several ways and help keep practice standards high. You can reduce costs by enabling assistants to perform tasks requiring fewer skills and improve access to audiology services by increasing availability and reducing wait times. In addition, audiology assistants can be utilized to enhance patient care and satisfaction. 

Erica Hansen, AuD, is a clinical faculty member for the University of Arizona—Speech, Language, and Hearing Sciences. She is a member of the Academy's Business Enhancement Strategies and Techniques (BEST) Committee.

Note: The Academy recently added a Audiology Technician Affiliate Member category to its Bylaws (www.audiology.org/publications-resources/document-library/bylaws-american-academy-audiology) after member review of the Bylaws. The Academy and its Membership Committee will be rolling out this member category and its benefits in the next few months.

Illustration by Johanna van der Sterre.

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CALENDAR

Here's what's trending this month!

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"As the #RioOlympics kick off, we recognize the Olympic athletes thriving with hearing loss. Read to learn more about how these amazing athletes strive for the pinnacle of athletic success: a gold medal."

Published on August 5 at 10:00 am

"Starbucks is opening a store with hearing-impaired baristas!"

Published on July 21 at 8:55 am



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"Prevention of hearing loss is a major area of research.' Recently, investigators have begun to explore roles of localized therapeutic hypothermia in the prevention of hearing loss."

Published on July 19 at 9:13 am



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California Academy of Audiology Conference
San Diego, CA
www.caaud.org/conference.asp

September 12–16

Meeting

Tinnitus & Hyperacusis Therapy Masterclass: Specialist course in Tinnitus & Hyperacusis Rehabilitation
Guildford, UK
<http://tinnitustherapy.org.uk>

September 18–21

Meeting

33rd World Congress of Audiology
Vancouver, BC, Canada
www.wca2016.ca/

September 21–22

Meeting

Second International Conference and Exhibition on Audiology and Deaf Studies
Las Vegas, NV
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September 27

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British Academy of Audiology Trent Regional Study Day 2016
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COGNITIVE DECLINE + HEARING LOSS

BY GRACE GORE STURDIVANT

Since communication difficulties are one of the earliest signs of dementia, audiologists are poised to make timely and appropriate referrals when necessary, which can improve long-term outcomes by allowing earlier diagnosis and management of cognitive decline.

Cognitive decline and hearing loss is a current hot topic in audiology. While recent findings offer compelling incentives for adult patients to make the jump to accept hearing aids, we must be careful to present the information accurately to patients and avoid unintentionally using misinformation as a scare tactic. Let's look at what we know.

Epidemiology

Hearing loss is the third most prevalent chronic health condition facing older adults, and we know that very few people have no cognitive decline with age. This presents a large overlap of older adults with both hearing loss and cognitive decline; a population which will only grow with the aging of today's adults. In 2010, 4.7 million people in the United States older than age 65 had the most common form of dementia, Alzheimer's

disease. In 2016, that number grew to 5.4 million; and in 2050, 13.8 million Americans are expected to have Alzheimer's (Herbert, 2013).

We, as audiologists, have an important role to play in the management of this expanding population since multiple factors related to hearing loss may contribute to meaningful functional outcomes. These factors include increased cognitive load or "effortful listening" with hearing loss; structural changes





THOUGH WE CAN'T SAY THAT HEARING LOSS CAUSES COGNITIVE DECLINE, THERE IS EVIDENCE THAT NEUROPLASTIC BRAIN CHANGES OCCUR WITH SENSORY DEPRIVATION.

and neurobiological factors to which hearing loss may contribute; and social-emotional changes that exist with both hearing loss and cognitive decline.

The Baltimore Longitudinal Study of Aging (BLSA), an ongoing prospective study of adults beginning in 1958, has found that the severity of hearing loss has a significant positive correlation with the risk of developing dementia. Individuals with severe hearing loss at the baseline were five times more likely to develop dementia. Second, the National Health and Nutrition Examination Survey (NHANES), an ongoing cross-sectional study, has findings consistent with the BLSA study showing a much higher impact of cognitive decline with hearing loss than with aging alone. Additionally, Frank Lin and colleagues at Johns Hopkins found that adults with untreated hearing loss developed cognitive impairment 3.2 years sooner than the normal hearing cohort; and that the rate of cognitive decline was 30–40 percent faster in individuals with hearing loss than in individuals with normal hearing (Lin et al, 2011, 2013).

While these are compelling findings, still we cannot conclude that hearing loss causes cognitive decline or that hearing aids prevent cognitive decline. The two conditions have associations, but no documented causal links.

Cortical Changes

Though we can't say that hearing loss causes cognitive decline, there is evidence that neuroplastic brain changes occur with sensory deprivation. Anu Sharma and colleagues at the University of Colorado have demonstrated cross-modal plasticity

and cortical resource re-allocation in adults with early-stage, age-related hearing loss. Cross-modal plasticity is the ability of a well-functioning sensory system, like the visual or somatosensory system, to recruit cortical brain regions from a deprived sensory system like the auditory system when hearing loss is present.

Cross-modal plasticity has been seen in cases of long-term, severe-to-profound deafness in adults and children, and more recently in adults with acquired mild-to-moderate, high-frequency hearing loss (2014).

One study used cortical visual-evoked potential (CVEP) recordings with adults who had mild-moderate hearing loss from 2–8kHz, many of whom were not even aware of their hearing loss at the time that they enrolled in the study. Even with these milder cases, subjects showed increased activity in auditory cortical regions in response to a visual stimulus. In other words, the visual system was beginning to recruit areas of the auditory cortex, even in cases of mild-to-moderate, high-frequency hearing loss. Also, a negative correlation was seen between the CVEP latency and the patients' speech perception in noise performance. This finding suggests that this cross-modal plasticity and recruitment by the visual system in early-stage hearing loss may negatively impact speech understanding in noise (Campbell and Sharma, 2014).

In addition to cross-modal plasticity, Sharma and colleagues have studied the brain's resource re-allocation, occurring as a compensatory mechanism for degraded auditory cortical activity. In a study of early-stage, age-related hearing loss, auditory temporal cortex activity

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decreased and frontal and pre-frontal cortical activity increased on auditory tasks. This shift in cortical activity from the temporal auditory cortex to the frontal and pre-frontal cortex, which is critical for working memory and executive function, results in increased effortful listening and cognitive load, logically leading to negative behavioral speech perception outcomes (Campbell and Sharma, 2013).

So, with even mild, high-frequency hearing loss, auditory cortex activation is decreased due to the abnormal auditory input to that cortical area. This decreased auditory cortex activation leads to the following two important changes:

- An increase in cross-modal activation of the auditory cortex by the visual cortex
- Compensatory cross-modal activation of the frontal and pre-frontal cortex for processing auditory information

These modifications lead to functional changes in speech perception, and can negatively impact cognitive reserve for working memory and executive function thereby potentially contributing to cognitive decline.

Effectiveness of Intervention with Hearing Aids

So, now can we say that hearing aids are viable protection against cognitive decline? Not so fast. A recent French epidemiological study made headlines in 2015 when data of over 3,000 subjects indicated that elderly adults with *self-reported* hearing loss who used hearing aids had similar rates of cognitive decline as those with no hearing impairment (Amieva et al, 2015). This led some to assert that hearing aids slowed the rate of cognitive decline. What did not make the headlines was that once factors of depression, social network size, comorbidities, and independent activities of daily living were controlled for, cognitive decline in persons with self-reported hearing loss was no longer significant.

Deal and colleagues conducted a pilot study within the ARIC (Atherosclerosis Risk in Communities) Study in 2015, addressing the hypothesis that older aged persons with hearing loss who use hearing aids have slower rates of cognitive decline than older aged persons with hearing loss who do not use hearing aids. In the study, older persons with moderate-to-severe hearing loss (>40 dB HL)

had poorer performance on memory tasks and global cognitive function compared to individuals without hearing loss. Participants with moderate-to-severe hearing loss, on average, showed decline on cognitive tasks over the 20-year period; however, the greatest decline was noted in the cohort who did not use hearing aids. Conversely, persons with moderate-to-severe hearing loss who used hearing aids showed global cognitive decline only slightly greater than the decline in persons with normal hearing (Deal et al, 2015).

While research has shown significant improvement in global cognitive function following cochlear implantation in elderly populations, more research is needed to explore hearing aid intervention as a viable protection against or decelerator for cognitive decline (Mosnier et al, 2015). Evidence consistently supports participating in cognitively-stimulating environments as an intervention for management of dementia, and hearing aids allow cognitive and interpersonal stimulation and engagement. Further, by decreasing the listening effort required with hearing loss, hearing aids allow patients to feel less exhausted after socializing, allowing more energy for further engagement with family and friends. No, we cannot yet definitively say that hearing aids prevent, delay, or slow cognitive decline. However, we *can* say that well-fit hearing aids allow for cognitively-engaging behaviors, which are known to prevent, delay, or slow cognitive decline.

Audiologists' Role

As audiologists, our role is to help older adults maintain good communication and remain socially engaged. Since communication difficulties are one of the earliest signs of dementia, we are poised to make timely and appropriate referrals when necessary, which can improve long-term outcomes by allowing earlier diagnosis and management of cognitive decline. It is within our scope of practice to administer screening tools such as the MoCA (Montreal Cognitive Assessment), MMSE (Mini Mental State Examination), or Mini-Cog and refer to primary care physicians and geriatricians with concerning results.

Physicians may likewise incorporate basic hearing screenings, conduct brief screening questionnaires such as the HHIE (Hearing Handicap Inventory for the Elderly), or they may simply ask questions about patient perception and family perception of hearing ability. Any of these measures can generate the information necessary to garner a referral to an audiologist. Since these hearing care measures are not currently included in routine Medicare

visits, we have a responsibility to educate physicians about the unintended consequences of untreated hearing loss and these quick and easy tools they can use for referrals. Physicians should also be encouraged to perform otoscopy to address what is possibly the most treatable form of hearing loss prevalent in aging populations—cerumen impactions; and to use amplification such as pocket talkers in administering cognitive screening assessments verbally in order to avoid overestimation of dementia.

Conclusion

We know that the population of people with comorbidities of hearing loss and cognitive decline is large and growing. We know that there are positive correlations between severity of hearing loss and the incidence of cognitive decline, severity of cognitive decline, and rate of cognitive decline. While we cannot advise our patients that hearing aids will prevent, delay, or slow cognitive decline; we can inform them that the cognitive and social engagement that hearing aids allow are known to be protective against cognitive decline. Hearing aids reduce depressive symptoms, boost social engagement, and reduce caregiver burden; all of which are critical factors for positive health outcomes and improved quality of life.

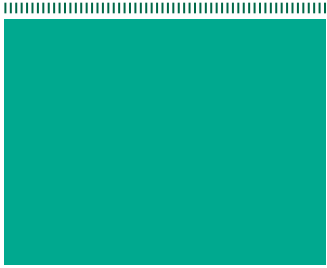
By diagnosing and treating hearing loss early with appropriately fitted hearing aids, we audiologists work to ensure that auditory temporal cortical activity remains fully engaged and retained so that patients can fully enjoy the practical function of social engagement and interaction. Audiologists and physicians should work together for proper and early diagnosis and treatment of hearing loss and cognitive decline, working toward the common goal of improving independence, overall health, and quality of life throughout the aging journey.

More research is needed to ascertain that hearing aids truly have a protective neurobiological function against cognitive decline. Still, we do have compelling evidence today that can be used in counseling patients and physicians on the negative synergy of the two conditions, and the positive health benefits of amplification. 📌

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Confessions of a Private Practice Owner

Working *with* Your Spouse

BY APRIL ROYAN



Hear about what a practice owner has learned from seven years of running a business with her spouse.

In 2014, *The Huffington Post* published an article titled, *How to Run a Successful Business with Your Spouse*. The article stated that, “If you’re thinking about going into business with your significant other, know that it is 100 percent possible to do so successfully. You’re just

going to have to work together and be extremely open to compromise.”

I remember reading that quote after a particularly stressful day at the office and thinking the author was crazy. It’s not that easy.

It was a rainy Memorial Day weekend in 2009 when my husband, Mark, and I sat with our newborn baby and

laid out the plans to form our private practice, Decibels Audiology. We had big decisions to make and no idea what we were doing—but we put our heads together and took a huge leap of faith.

A lot has changed since that momentous day seven years ago.

Mark and I still make all of our big decisions together—but it’s not nearly as simple. Seven years, dozens of employees, and thousands of patients later, it is not just about us anymore. Mark has since sold his previous business, so we rely solely on our private practice to feed our family. And, most entertaining and often trying, we now

spend all day, every day, together. Our entire lives revolve around this business, and that has proven to be the most challenging aspect of all.

Our practice has enjoyed both enormous success and colossal failure. Our marriage has been in the center of all of that, and I find comfort knowing we are not alone: so many of my friends and colleagues who own their own practices work with their spouses and/or family members. While I often hear them jokingly gripe about the challenges associated with working with family, I also know that I couldn't do this job well without my other half.

When Things Are Good

When things are going well, it's fun to kick back at the end of a great month and say, "Man, we're so smart. We nailed that." But any successful practice owner will tell you that there is an underlying stress in doing well that nags at you: "What made this our most successful quarter ever? How do we replicate this? Is this spike in profitability related to a specific employee, a specific product, a new advertising campaign, or the new front desk person? Do we have enough employees to accommodate demand? How long can we ask a new patient to wait before their first appointment? Do we need a larger office? More parking? Should we increase our advertising?" These things all cost money and they are all a gamble. There is no "right" answer. What works one month, may fall flat the next.

My husband has proven to be a rock star in this area. He loves data. He tracks absolutely everything. And while I may feel like the new office paint color is the reason for a surge in sales, he'll point to the numbers and say, "No, the data says that advertisement x pulled x number of patients and performed x times better than the ads last month."

Even with all of the data and experience in the world, there are still many times when we don't know what to do. Even more often, we don't agree on what to do. Thank goodness for a great team of advisors: friends, family, employees, and business consultants who tell us the truth. We aren't just husband and wife; we're part of a much larger team that makes everything work.

When Things Are Bad

Sometimes the phone doesn't ring. Sometimes oil is spilled in the Gulf and snowbirds don't visit your town for two years. Sometimes you get to the end of the quarter and find that you've lost money—a lot of money. Sometimes that means you can't pay yourselves—and that really stinks.

Because we're married, these pressures don't just weigh on us from nine to five, they are in our lives 24 hours a day. And because we have small children, it's usually not until after the kids are in bed at night that we can sit to discuss facts and figures.



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When Things Are Really Bad

In seven years, we've had a few moments that have brought us to our knees. A big disappointment can leave us both dazed and shocked for days. In these times, it feels like there is no escape because there is no way to focus on anything else. However, a few days of moping around, and a few bottles of wine later, we climb out of the hole. I get creative and driven. Mark gets focused on using his brilliant computer skills to learn from these failures and create processes to avoid them in the future. These times are always wake up calls. In each instance, we've come back stronger and more profitable.

Weird Things About Working with Your Spouse

Many people say to me, "Wow! You work with your husband! How great is it that you two get to spend so much time together?!" While that's a lovely thought, the truth is that I hardly ever see him at work. We are both super busy. And because we work in the same business, we try really hard to make sure that our roles don't overlap.

As parents, balancing family and the business is hard. If our family gets sick, both owners are absent. If our kids need someone to take them somewhere, one or both of us needs to leave early. The flexibility to call the shots is wonderful—but it's stressful on the staff any time both owners have to be out unexpectedly.

Our social life is a wonderful circus. We are always going somewhere. Most of our functions involve work: staff appreciation events, networking events, charity functions, and product trainings. That stuff is fun but it's crazy and exhausting; and it requires a lot of babysitters if we both want to attend an event.

And while we desperately cling to our non-work friends to remind us that hearing aids are indeed NOT the most important thing ever, it can be hard for people who are not business owners to understand what we do. While I'm the audiologist and the face of the company, Mark's role is behind-the-scenes. While I recognize

how much Mark does to make us successful, others do not always get to see that. They don't see him building our Web site, paying our vendors, and putting together endless reports that improve efficiency. They don't see him being a cheerleader for myself and our entire staff. They don't see him picking up our kids from school every day so that I can work a few more hours. Sadly, sometimes I fail to see it as well. He's the first one I snap at if I have a bad day, and the first one to hear me vent. But he's awesome, and he listens to me, and he tells me to get over myself when I'm being a spaz...and he's totally right. Because there are many days when I need to just get over myself and get back to work. And who else is going to tell me that besides my husband?

Why It Is Still Better than Anything Else

Every summer (slow season in Florida), Mark and I load our kids in the RV and take off for an eight-week road trip across the country. After the kids are asleep, we work for hours on tiny laptops around big campfires. We get to travel the world and still stay connected. We get to see our amazing staff shine and grow while we take a step back and focus on the subtleties of the business that often are pushed to the back burner.

Every summer, time and time again, we can't believe how lucky we are. Who else gets to do that? How else could anyone do that? It is such a blessing to work in the same field, for the same company, and have the same schedule.

As crazy as we both are, and as much as we struggle to get along sometimes, we're having a blast building something great. We've taken our family, and our business, and made an even bigger family: a big family of our wonderful employees, colleagues, and patients. We wouldn't have it any other way! ⁴¹

April Royan is an audiologist and the owner of Decibels Audiology in Naples, Florida.

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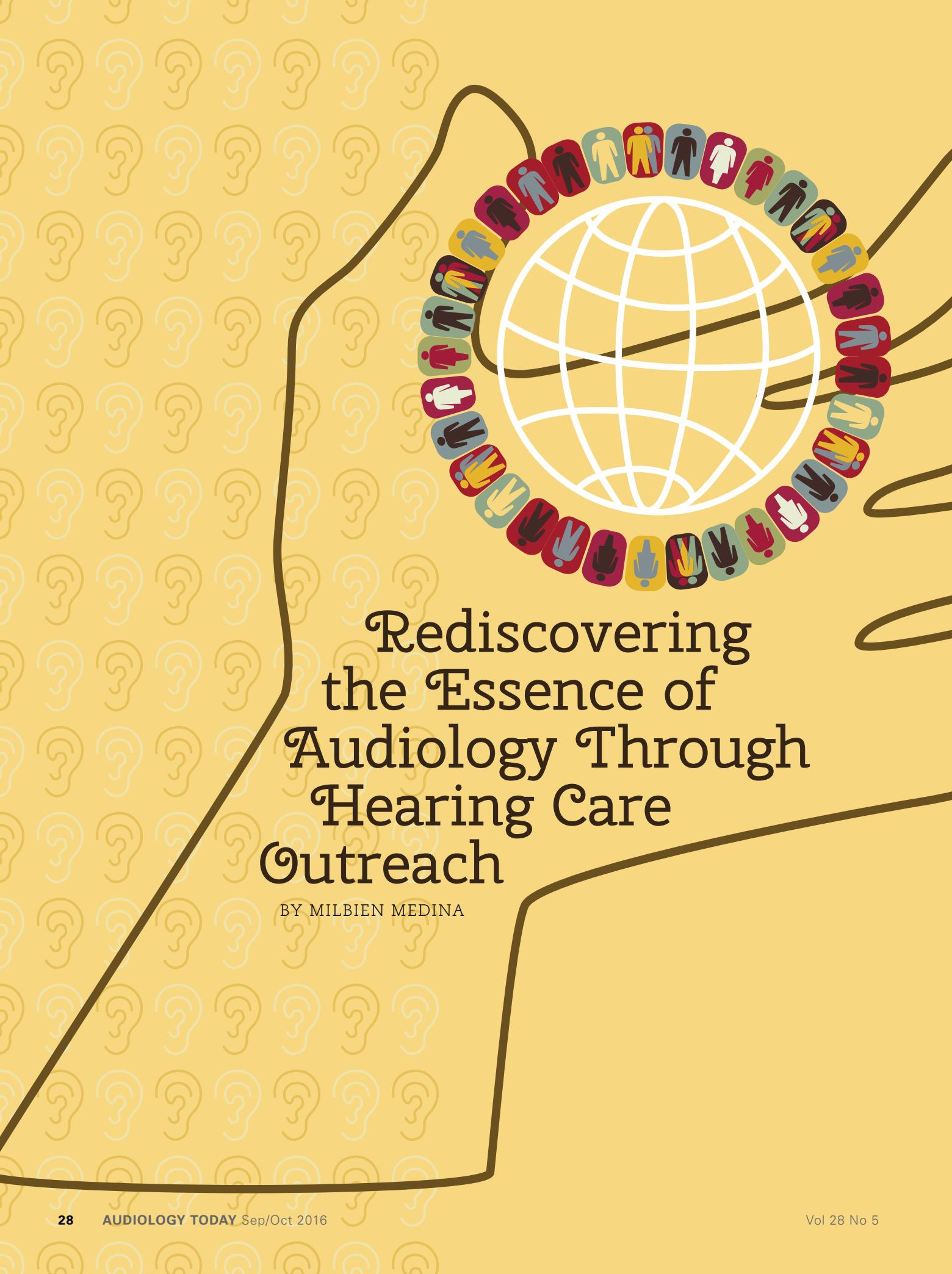
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Rediscovering the Essence of Audiology Through Hearing Care Outreach

BY MILBIEN MEDINA



Hands-on experiences from six audiologists traveling far and wide to provide hearing health care to underserved communities, plus how you can join them.

Audiologists Angela Flores, Randa Mansour-Shousher, Jackie Phillips, Jack Scott, Nora Stewart, and Wendy Switalski share their experiences providing hearing care in underserved areas. Drs. Switalski and Scott are field development audiologists at Audiology Systems, while Dr. Phillips is a national key accounts manager. All audiologists featured in this interview have volunteered on their personal time and expense. Their stories highlight the importance of humanitarian initiatives and outreach programs to improve hearing care in communities both around the world and around the corner. This article aims to inspire more audiologists to be involved in hearing care outreach.

What is the significance of global outreach to hearing loss today?

Jack Scott, PhD: The World Health Organization (WHO) reports that over five percent of the world's population has a disabling hearing loss. Globally, 328 million adults have a hearing loss greater than a 40 dB in the better hearing ear and 32 million children have a greater than a 30 dB hearing loss in the better hearing ear. Unfortunately, WHO cites that a majority of these individuals live in low- and middle-income countries. In addition, they report that the greatest prevalence of age-related hearing loss (older than age 65) exists in South Asia, Asia Pacific, and sub-Saharan Africa (WHO, 2015).

Wendy Switalski, AuD: To Jack's point, WHO launched a questionnaire-based assessment in 2012 (WHO, 2013), to determine the capacity of member states to develop and implement initiatives dealing with ear and hearing care. The questionnaire revealed that the lack of human resources was cited as a common reason for the absence of ear and hearing care programs, not the lack of need. What hearing services are provided in these underserved areas are often provided by volunteers.

Jackie Phillips, AuD: WHO further estimates that more than 60 percent of hearing loss in children under the age of 15 years is preventable. This figure is higher in low-income and middle-income countries (75 percent) as compared to high-income countries of the world (49 percent). Untreated hearing loss among children can lead to serious problems, including poor language skills, stunted cognitive development, as well as social and psychological issues (WHO, 2016). In Guatemala, where I have volunteered, children who do not properly develop language skills are not allowed to attend school. Without education, these children often have no options other than manual labor or other jobs offering minimal compensation. With half of Guatemala's population younger than age 18, pediatric hearing loss is both a major health and social concern.

Why did you decide to be an audiologist or hearing care professional? What is the role of an audiologist in the life of a person with hearing loss?

Randa Mansour-Shousher, AuD: Growing up, I was surrounded by individuals serving others—whether it was watching my mother teach mathematics and tutor those who were learning a second language, or assisting my father in his medical clinic, holding a child while he stitched their cut, or even holding their hands as he examined their ears. I knew without a doubt that I wanted to be in a health care field: audiology fulfilled that desire. I love the versatility of being an audiologist—helping in the diagnosis of hearing loss, fitting hearing aids and assistive listening devices, assessing tinnitus or vertigo, and creating a treatment plan—all of these are roles an audiologist plays. We also have a role in educating the patient, family, friends, and being an advocate and a sounding board.

Angela Flores, AuD: In high school, I knew I wanted to work in the medical arena but wasn't quite sure which career path to follow. One day, an audiologist came to our school. Thus I began to explore the profession as well as volunteer in the audiology clinic at a local Navy hospital, ultimately deciding to pursue audiology as a career. In our role as counselors, medical advisors, and direct providers of hearing and balance care, we can help those with hearing loss take the journey out of embarrassment, frustration, and loneliness back into the hearing world. Without hearing, it's difficult to engage with those around you, whether at work or on a more personal level. As Helen Keller famously said, "Blindness separates people from things; deafness separates people from people."

Let's talk about your experience with volunteering for hearing care initiatives.

Nora Stewart, MA: In 2008, I joined a hearing mission trip that happened during a time I was feeling professional burn-out. The experience both revived and inspired me to bring audiology services to those in need. I also realized that I wanted to share this experience with other audiologists and get them involved in volunteer opportunities. To do this, in 2011 we formed HearCare Connection in Ft. Wayne, Indiana. We set initial goals to provide services

only at the local level, intending to branch out internationally after five years. However, only four months into our non-profit experience, we were connected with a minister from Bethlehem who inspired us to bring our work there. In the Ft. Wayne community, HearCare Connection has now seen over 375 patients of all ages and provided over 1,500 hearing screenings. Globally, we provide care in Guatemala, Jordan, Zambia, and many other countries. We have since formed Entheos Audiology Cooperative to organize like-minded audiologists who want to not only provide excellent audiological care but also seek to incorporate philanthropy into their business practices.

Wendy: I have been providing primarily pediatric services in American Samoa through different collaborations since 2007, and have also traveled to Jordan to work in refugee camps with HearCare Connection. Volunteering for an outreach was not something I had planned but, when somebody asked, it was hard to turn down the opportunity. It is one of the most rewarding things I have done. When I look to the future it is with hope that I can participate in even more outreach programs.



Amar and Dr. Mansour-Shousher, along with Dr. Seilsh Babu, prior to Amar's cochlear implant surgery.

Randa: My hearing care initiatives started over 20 years ago when I used to take new hearing aids to low-income communities overseas and fit the hearing instruments using simple trim pot controls. Over the years, I then joined hearing missions for different non-governmental organizations. I joined HearCare Connection and Entheos' global missions in 2012. We have provided assistance in Africa, South America, and the Middle East. I have truly enjoyed participating in helping Syrian and Palestinian refugees in need of audiological assessments and hearing aids, and am happy to share that within one year we fit close to 1,000 hearing aids!

I was also involved in the initiation of our local HearCare Connection. This program was established in September 2015 to provide quality hearing health-care services, including assistance for those who lack financial resources for medical coverage. When coverage is available, hearing aids often take a backseat to other needs such as clothing, food, and transportation. So this program provides hearing and communication support for those in need, allowing them to become more successful in their lives.

Angela: For the last eight years, I have traveled to Guatemala to work with a group called Faith in Practice. They organize a mission throughout the rural villages of Guatemala that brings surgical and medical care to those in need, including audiology. I had always wanted to take part in audiology humanitarian work and the timing was finally right. I was going through some personal changes and needed some perspective. That trip certainly provided it. As a team, Jackie and I evaluated hearing for all age groups and fit hearing instruments to those in need.

Jackie: As Angela mentions, in 2008 we joined Faith in Practice in Antigua, Guatemala. This non-profit organization is dedicated to improving the lives of the poor through short-term medical trips. We have since made several return visits.

Each year that we have participated, Angela and I have conducted testing on approximately 75 patients and fit 25 to 30 hearing aids. In 2012, Faith in Practice established a new audiology clinic in Guatemala with donated equipment, which allowed us to perform more thorough diagnostic testing. The days are long and tiring, but the impact this work makes on the lives of the Guatemalan people and the gratitude they display make it all worthwhile.

Jack: With the financial support of the School of Communication Sciences and Disorders at Western

University, in London, Ontario, I was able to develop the First Nation Hearing Health Program, an ongoing outreach initiative for improving hearing health in the James Bay First Nation communities located in northern Ontario. A large component of the program focuses on preschool hearing screenings for early identification of hearing issues that impact educational achievement and language/speech development.

During the first four years of the program, the preschool screening initiative was limited to the community of Attawapiskat, Ontario. In 2014, the reach was expanded to include the Kashechewan First Nation community. Since then, 275 children have completed the preschool screening and hearing assessment programs. Of these, 44 percent of children tested have been identified and referred for further hearing interventions (e.g., medical work-up, amplification).

In addition to the preschool program, I've implemented an adult hearing health program in the hospital and local medical clinic in Attawapiskat. Forty-two adults have benefited from the hearing interventions that clinical audiology students provided.

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Was there a situation that left a mark on you?

Randa: The most memorable experience was hosting a four-year-old boy from Lebanon. Amar lives with his family in a three-room suite that was part of a refugee camp. I was contacted through American Near East Refugee Aid (ANERA) to see if he qualified for a cochlear implant. After assessing his records, I said yes. He suffers from a severe-to-profound hearing loss in both ears. Because of his hearing loss, other children did not fully accept him. The best his parents could do was to take him to his dad's barber shop every day to watch and interact with the patrons.

Planning for over a year and gathering commitments from Cochlear Limited, surgeons, a hospital, and a speech pathologist, Amar's road to a new way of hearing was paved for him. He traveled to Toledo, Ohio, where he received an implant, was fit with a hearing aid on the non-surgical ear, and started his new way of hearing.

The day the processor was turned on was such a blessing. Watching him localize to sounds and try to imitate speech brought tears of joy to his mother and the rest of us. Several months later he left the secure environment of success in Ohio and headed back to the camp.

Now I am on the other side of the world with continual concerns and wondering whether his hearing care is being addressed. Over the past year, his parents have kept in contact to let me know how he is doing. According to them, his speech is developing very well. The sad fact is,

however, that he will not have the same type of access and follow-up care in the refugee camp as he would here in the United States or another well-developed, peaceful country.

Wendy: I agree with Randa. Sadly, sometimes the situations are memorable because they are heartbreaking. I remember trying to convey to a young deaf father that, unfortunately for his situation, there was nothing we could do because of a limitation in resources—not due to a decision that we were making about him. It was almost impossible to transmit this across our multi-level language barrier. I can still clearly see the anguish in his face and feel the helplessness of the situation.

However, there are also many experiences that end in smiles: the smile of a child who has not had access to sound when his hearing instruments are first activated; the smile of his parents as they watch him respond to their voices. It's a tremendous privilege to be a part of experiences like this.

Angela: In Guatemala, there have been so many memorable experiences; some were memorable because I was helpless to provide the care needed, while others were truly joyful moments where I made a difference in someone's life. I will never forget one experience I had with a 12-year-old girl who had profound hearing loss but had not been diagnosed or received any intervention. This left her unable to communicate even basic needs or thoughts;



Dr. Flores (left) is discussing the care and handling of the hearing aids while Dr. Phillips (right) is fitting a patient.

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she was continually frustrated and beginning to exhibit emotional and behavioral issues. It's heartbreaking and makes you feel so helpless, especially knowing that in the United States she would have been diagnosed at an early age, fitted with the appropriate amplification, and provided with proper intervention for language acquisition. On the other end of the spectrum, I remember fitting a woman with a significant conductive hearing loss. The hearing instrument allowed her to hear her husband and those around her. After hearing well for the first time in a very long while, she began to cry with joy. That certainly makes the long trip worthwhile.

Jackie: It is difficult to single out one experience. However, seeing the eyes of parents transform from fear before their child enters into the testing room to joy when their child emerges with a hearing aid and can hear for the first time is always memorable. I remember when we fit Rublin—then an 11-year-old boy—with a hearing aid. Suddenly his world was awakened with the sounds of life. He laughed as he heard new sounds for the first time. His parents were filled with hope that their son would have a better future. Once Rublin received treatment for his hearing loss, he was finally allowed to return to school. The experience was truly life changing for Rublin and for all of us.

Jack: The experience of gaining acceptance and buy-in from the teachers and community-at-large has left a lasting mark on me. Unfortunately, underserved communities are accustomed to singular humanitarian visits, i.e., air-drop visits. While programs may have the best intentions of maintaining annual visits, these goals are not always realized, either due to attrition or a decrease in funding; and in some cases where visits are planned as singular events, that may not be clearly expressed to community leaders. But if one is privileged enough to visit and re-visit a location, they become your friends and the community becomes your community.

Nora: The first patient we ever saw in Ft. Wayne was Monica, who suffered from bilateral hearing loss following physical abuse at the hands of her spouse. She had no insurance coverage and couldn't afford to privately pay for hearing aids. Our organization doesn't give free hearing aids, rather, we use a reduced-fee sliding scale. What the patients cannot pay monetarily we ask them to give back to their community in volunteer hours, which we call the "circle of giving." We believe that this method serves not only to connect our patients to their community but also provides a greater level of dignity.

Monica completed her service hours—and at a routine service appointment one year later, I was amazed at how her experience changed her life. She volunteered at a local thrift store and continued to do so even after she had completed her service obligation so that she could bank hours for others. She's also helped other abused women obtain hearing aids. It literally transformed her life.



Dr. Scott is performing cerumen removal on a teacher at the J.R. Nakogee Elementary School.



Dr. Stewart (center) taken during an Entheos Audiology mission trip.

How can an audiologist interested in humanitarian work get involved?

Jackie: There are many organizations that participate in mission trips. Faith in Practice, the organization that Angela and I travel with, has a great Web site (faithinpractice.org) with information on the trips to Guatemala.

Jack: The Coalition for Global Hearing Health (coalitionforglobalhearinghealth.org) is a terrific resource to learn more. Their annual convention is an ideal avenue for establishing relationships with others performing outreach work. I would also suggest contacting your local university audiology program to see if they have outreach initiatives. Finally, a good potential source of financial support is hearing manufacturers' philanthropic organizations.

Wendy: Organizations such as HearCare Connection (hearcareconnection.org) and Entheos (entheoshearing.com) organize mission trips. I would encourage those

interested in volunteering to explore their Web sites for both global and local outreach initiatives.

Randa: HearCare Connection and Entheos hearing mission trips are definitely great organizations to start with. In addition, you can also get involved by joining hospital boards. I am fortunate to have an exciting practice that allows me to expand beyond my office walls by offering others my time and giving back to my community. I noticed that there wasn't representation of audiologists on the local hospital boards and felt it was a needed addition, which is often forgotten. As some have told me, my presence has enhanced other board members' understanding of hearing loss, cochlear implant programs, and the need of hearing health care locally and nationally.

Nora: We definitely welcome new volunteers to join HearCare Connection and Entheos mission trips throughout the year. I would like to add that if you are not available to join our mission trips, there are more ways to be involved such as participating in the planning of our fundraising events, helping us spread the word, or volunteering at our

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Milbien Medina is a marketing specialist at Audiology Systems, a full-service, U.S. distributor of Otometrics products—and other leading audiology and vestibular equipment.

Angela Flores, AuD, has traveled with Faith in Practice for the past eight years, along with Dr. Phillips. Dr. Flores is an independent audiology consultant.

Randa Mansour-Shousher, AuD, has been involved in outreach programs with HearCare Connection and Entheos since 2012. She owns a private practice in Toledo, Ohio, and is a board member of ANERA (2009–2015), CAAP (2010–present), Toledo Children’s Hospital Foundation (2016–present), and the Toledo Hospital Foundation (2011–2015).

Jackie Phillips, AuD, has traveled with Faith in Practice to Guatemala on a regular basis since 2008, along with Dr. Flores. Dr. Phillips is the national key accounts manager at Audiology Systems.

Jack Scott, PhD, has provided hearing care in remote First Nation communities in Northern Ontario, Canada, for the past five years. In 2015, Dr. Scott received the Western University Humanitarian Award for his work in Northern Ontario First Nation Communities. Dr. Scott is a field development audiologist at Audiology Systems.

Nora Stewart, MA, is co-owner of HearCare Audiology, a private practice in Fort Wayne, Indiana. In 2011 she founded HearCareConnection, a 501c3, to create a better way to help those in need of hearing care. The success of this model led her to build Entheos Audiology Cooperative in 2014.

Wendy Switalski, AuD, has been involved in global humanitarian efforts through different collaborations since 2007. Dr. Switalski is the field development audiology manager at Audiology Systems.

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New NIDCD Research Training Programs for AuD Audiologists

BY SUMIT DHAR



**Academy Associate Editor
Sumit Dhar, PhD, spoke with
Drs. Alberto Rivera-Rentas and
Amy Donahue about the new
NIDCD fellowship and career
development mechanisms.**

SD: Thank you Drs. Rivera-Rentas (AR-R) and Donahue (AD) for agreeing to discuss these exciting new fellowship and career-development mechanisms with us. Let's start with taking a second to orient our readers with the mission of the National Institute for Deafness and other Communicative Disorders (NIDCD), especially in the context of these new mechanisms and training in general. Briefly, what is the mission of the NIDCD, how does training and career development fit into it, and specifically, how do these programs support your overall mission?

AR-R/AD: Let us give you a little bit of the background that triggered these initiatives. NIDCD's mission is to support research and research training in the areas of hearing, balance, taste, smell, voice, speech, and language. The goal of our research training programs is to increase the number, quality, and diversity of well-prepared and skilled investigators with knowledge and expertise in all areas supported by the Institute. This includes AuD audiologists interested in pursuing research careers. For this reason, in December 2014, we convened a group of research training experts in audiology to gather recommendations to enhance the training of audiologists in biomedical research. The resulting new F32 and K01 programs were specifically designed to create a logical pathway for AuD audiologists to engage in biomedical research and pursue careers as clinical investigators.

Thank you for the general background and helping us understand how the new programs fit into the universe of NIH funding support. Isn't the usual PhD dissertation support fellowship mechanism an F31? Why the need for a special F32? I am guessing this might have something to do with the fact that the applicants have a clinical doctorate (AuD) already.

AR-R/AD: Yes, the F31 research dissertation fellowship is a pre-doctoral program that supports the completion of a PhD in biomedical sciences. Since AuD holders already have a health-related doctorate, they are considered post-doctoral and the only program

Along those lines, what about those pursuing an AuD and a PhD simultaneously? Can they apply for support under this mechanism? Or is a different mechanism more appropriate?

AR-R/AD: NIDCD participates in the NRSA F30 pre-doctoral, dual-degree programs that support individuals in academically integrated, structurally combined institutional AuD/PhD programs. The F30 program requires the dual entry and completion of both degrees simultaneously. However, most institutional academic AuD/PhD programs are not structured in this manner. So, those applicants that are not in the combined institutional

Since AuD holders already have a health-related doctorate, they are considered post-doctoral and the only program available to them was the conventional F32 post-doctoral fellowship program.

available to them was the conventional F32 post-doctoral fellowship program. However, the typical F32 applicant has already completed a research degree, i.e., PhD, and has more research experience and publications than a typical AuD applicant without a research doctorate. Thus, we needed to create a program at the post-doctoral level to allow AuD applicants to complete a research dissertation project and a PhD in biomedical sciences.

programs can complete the degrees separately by finishing the AuD first, and then applying for the NIDCD-specific F32 to complete the PhD.

This is great news. It sounds like a full range of options are now available for those pursuing research during or just after their AuD education. Could you tell us a little bit more about a possible longitudinal trajectory for funding when someone first finishes an AuD and then pursues a PhD? What options would they have for support if they chose to undertake postdoctoral training after the PhD?

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The main difference between the NIH-wide conventional fellowship programs and the AuD-specific F32 is how the applicant and the mentor(s) customize the research training plan and the research project to fit the unique background and academic record of an AuD audiologist.

AR-R/AD: It is generally expected that an applicant pursues a post-doctoral research training experience after he or she completes his/her AuD and PhD. The post-doctoral experience will enhance and strengthen the scientific and technical expertise of the applicants as they move toward becoming an independent biomedical research investigator. Because individuals cannot have more than three years NRSA post-doctoral support, i.e., the F32, we created the NIDCD-specific mentored career development award for post-doctorate AuD/PhD audiologists (K01) program to support that first post-doctoral research experience. So, for example, when an AuD decides he or she wants a research career, he or she would apply to the AuD-specific F32 for PhD dissertation work, and then apply for the AuD/PhD-specific K01 for their post-doctorate.

Is the NIDCD targeting specific types of research and training for this mechanism? That is, will those pursuing applied (possibly on human subjects and clinical populations) as well as basic research, e.g., animal models, cellular and molecular biology, be equally competitive?

AR-R/AD: We support basic, clinical, and translational research projects that fit our strategic plan (www.nidcd.nih.gov/about/strategic-plan/2012-2016), our research areas (www.nidcd.nih.gov/research/extramural), and clearly will contribute to our mission (www.nidcd.nih.gov/about/mission).

This is, after all, a training grant. Do you have any thoughts on how a training plan for one of these applications may be unique or different compared to other F32 applications?

AR-R/AD: The main difference between the NIH-wide conventional fellowship programs and the AuD-specific F32 is how the applicant and the mentor(s) customize the research training plan and the research project to fit the unique background and academic record of an AuD audiologist.

In my experience, you have always encouraged scientists and trainees to consult with program officers once the specific aims, and perhaps the basic training plan, has been mapped out. Of course to be of help this consultation needs to happen well in advance of the deadline. Would you suggest the same for those interested in this mechanism?

AR-R/AD: Yes! It really saves time and headaches if the applicants communicate with Dr. Rivera-Rentas ahead of time. The best way is to send him an e-mail, including their biosketch in NIH format, a brief description of the project including the aims (one page), the population that will be studied (as applicable), and the name of the mentor(s). Also, applicants need to include a statement on how the proposed project fits our strategic plan, our research areas, and will contribute to our mission. Responses to the applicants' e-mail are typically received within a week.

Let's finish with some practical questions:


Can we assume that this mechanism will remain available for the near future?

AR-R/AD: Yes, we truly hope that AuD audiologists interested in pursuing biomedical research will take advantage of these programs. Our aim is to increase the number of AuD/PhD audiologists in the NIDCD research portfolio.

Will there be the usual quick turn-around time for this mechanism like other training grants, so applicants do not miss a deadline?

AR-R/AD: Yes, NIDCD uses an expedite review process for fellowships.

Will one of the regular study sections at NIDCD review these applications or will there be a special group assembled?


AR-R/AD: At NIDCD, fellowships are reviewed by three special emphasis panels based on our research areas (hearing and balance; voice, speech and language; and chemical senses) and the applications to the new F32 program will be integrated within these panels. 

Sumit Dhar, PhD, Board Certified in Audiology, is a professor of audiology and hearing sciences and chair of the Roxelyn & Richard Pepper Department of Communication Sciences and Disorders at Northwestern University in Evanston, Illinois. He is also an associate editor of Audiology Today.

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The AUD Student Loan Quagmire

BY GARRETT THOMPSON





The debt dilemma offers an opportunity for universities and professional organizations to take decisive action in support of students as they navigate the multifaceted student loan decisions in the brave new world of the AuD. In the meantime, students must educate themselves on financial literacy and advocate for meaningful change.



While deciding where to spend my fourth-year externship, I heard stories—a friend deciding to turn down a top facility in New York City; another declining a world-renowned institution in Los Angeles. Why would they do such a thing, you may ask? They would have been thrilled to spend their fourth year at these acclaimed facilities, but because they offered no compensation, my friends said no. Part of their calculus was the significant student loan debt that each had taken on during the journey toward a doctorate of audiology. This is an example of the effect that mounting student debt can have on an individual, and I believe there are even more significant consequences for audiology as a whole.

As an undergraduate at Boston College, I studied economics. I have been interested in the student loan debt crisis and its ramifications for several years. Young people are accruing more student loan debt than at any time in American history (The Institute for College Access and Success, 2015). This is mostly due to the shrinking availability of grants from federal and state governments, ballooning tuition, and the easy accessibility of loans with sizable origination fees and interest rates. Audiology students are not immune. Audiologists who have been in the field for decades are often shocked to learn that many students are now taking on upward of \$100,000 in student loan debt to earn their doctorate. Those who have achieved a master of audiology degree or an AuD through a transitional program spent nowhere near this amount. As transitional programs are phased out, the AuD—and the enormous debt that goes with it—will become the new normal.

This burdensome debt will affect the profession in a myriad of ways. It may discourage young people from choosing a career in audiology. Prospective students may instead opt for hearing health-care careers with a better return on investment, perhaps as hearing aid dispensers. According to William Elliot, director of the School of Social Welfare at the University of Kansas, student loan debt, more than any other kind, has a negative impact on self-reported financial well-being (Gorman, 2015). Individuals with student debt are more likely to favor high-paying jobs, which they may not have chosen otherwise. Certainly, this will limit the options of young audiologists with an interest in positions that have relatively lower salaries, such as

Minimizing the debt students incur is paramount to their future financial health.

hospitals, non-profits, and humanitarian audiology. They may turn to higher paying options such as with hearing-aid manufacturers or “big box” stores. Students who wished to pursue continued education, such as a PhD or MPH, may not be able to. As a result, research in our field could suffer for decades to come.

Furthermore, young professionals with debt are less likely to start their own small businesses. In a survey of recent graduates, 47 percent of respondents said loan debt was the deciding factor, or contributed to, their decision of whether or not to start a small business (American Student Assistance, 2013). Fewer new graduates will be willing to take the risk of starting a private practice; this could pose an existential threat to audiology. Many older professionals are approaching retirement and there are currently not enough audiologists to meet the demand of an aging baby boomer population. With young, debt-saddled audiologists less likely to start small businesses, who will carry the mantle of private practice audiology? The answer to that question is troubling: perhaps no one will. Big box stores, chain hearing aid dispensers, drug stores, and Internet retailers could very well fill the resulting void.

A more palatable alternative for some young, entrepreneurial audiologists is to open a private practice with

the funding and support of one of the major hearing aid manufacturers or a business management company, in order to reduce financial risk. Personally, I caution this strategy. Partnering with such a company may—overtly or covertly—diminish the audiologist’s autonomy. Independence is essential to garner the trust of our patients and the health care industry as a whole.

What solutions are available to ameliorate these troubling long-term trends? The single most impactful solution is improving financial literacy. The student loan crisis is amplified by the fact that the majority of student borrowers do not fully understand the complicated web of programs and repayment schedules. In the aforementioned survey, 69 percent of respondents were confused about repayment options available to them. Whom should they turn to for clarification? Their alma maters are of little help, especially after they graduate.

Some loan service companies that are tasked to help have proven untrustworthy and were recently fined millions of dollars for taking advantage of student borrowers. The reality is that students need to educate themselves on this topic. That being said, the situation also presents an opportunity for professional organizations and universities to step in and advocate for nascent audiologists. Whether this process is directed or autodidactic, the main goals should be: minimize the amount of debt students take on and understand how repayment and loan forgiveness options can be utilized in the students’ best interests (Federal Student Aid, 2016a).

Minimizing the debt students incur is paramount to their future financial health. I like to think of it as preventative medicine for the wallet. Strategies for incoming and current students include the following:

- Favoring a state school with lower tuition
- Refusing to accept an unpaid fourth year (and negotiating for a higher stipend)
- Working part-time during school, particularly in audiology-related positions, such as a private-practice assistant or a newborn hearing screener. If available, pursue teacher’s assistant or adjunct professor positions through your university.

Also, creating a budget and responsibly managing your finances during graduate school is essential. Once you graduate, consider negotiating for a benefit package that includes loan repayment assistance in lieu of traditional benefits like 401k matching. With federal loans having



an interest rate of about seven percent, you could save thousands by choosing repayment assistance.

Universities play a major role in minimizing student loan debt. Many programs do not offer fellowships, scholarships, or paid positions to AuD students like they do for PhD students. Additionally, many universities charge full tuition during the fourth year when students are working full-time, have little or no oversight from their program, and take online or no classes at all. Some programs charge campus fees even if their students are thousands of miles away at their externship location. In my opinion, universities must drastically change the way they handle the fourth year. They should charge the least amount possible to maintain student status, preferably zero dollars, and substantially improve their role in facilitating paid externships.

Currently, externship placements are getting full-time work from educated, highly-trained individuals, and many compensate zero dollars in return. If programs were to organize and negotiate a minimum stipend, they could use their considerable leverage to pressure fourth-year placements into providing it, as many placements rely on the work of fourth-year students to operate. This would reduce a massive financial burden on students without compromising clinical competency or four-year degree esteem. The fourth-year stipend should be tied to cost of living in that area, such that students could achieve a debt-free fourth year. This should be the goal. It is a cruel twist of reality that business classes are consistently voted the biggest weakness of audiology programs (Gaffney, 2016). Programs would be wise to address these concerns.

The topic is also relevant to students who already have a significant amount of debt. It is essential to understand how to make a budget, how to navigate your various repayment options, and the possibility of loan forgiveness. Choosing a repayment option that works with your monthly budget while simultaneously putting you in the most advantageous financial position moving forward is critical. For example, an individual with \$100,000 of student debt who chooses the 10-year standard repayment

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schedule would pay a total, with interest, of \$140,000. That same individual, were he to choose the lower monthly payment of the extended graduated repayment schedule, would pay back a total of \$230,000 over the life of the loan (Federal Student Aid, 2016b). As Albert Einstein said: “Compound interest is the eighth wonder of the world. He who understands it, earns it... he who doesn't, pays it.”

Loan forgiveness is another option for students who plan on working in the public service sector or for those who find themselves buried in debt with few other options. Public Service Loan Forgiveness is a federal program that can be a phenomenal option for audiologists who would like to work in a non-profit or government setting. After 10 years of work in this space and 120 consecutive monthly loan payments, the remainder of the loan is forgiven, tax free. When paired with the new federal repayment option called Pay as You Earn, this means that after 10 years of reasonable payments (no more than 15 percent of discretionary income) on a \$100,000 student debt load, over \$40,000 of the principal and all the interest is forgiven (Federal Student Aid, 2016b).

These numbers depend on a few factors, such as marital status and level of income, but they represent a close estimate. Other income-driven repayment plans are available as well, namely Income-Based Repayment and Income-Contingent Repayment (<https://studentaid.ed.gov>, 2016). This information is relevant given the multitude of options in our field that fit the criteria, for example non-profit hospitals and the VA. Essentially, employment at any government entity or organization that qualifies as a non-profit 501(c)(3) is eligible. Furthermore, this does not mean you have to work at the same organization for 10 years. You can move between jobs, as long as you work for an average of 30 hours per week and are considered full time by your employer(s). Reminder: you must make 120 qualifying monthly payments for the loans to be forgiven. Public Service Loan Forgiveness is a cost-effective approach that also offers employment flexibility; it should be strongly considered as an option for the next generation of audiologists.

Audiologists can also use several state programs for allied health providers working in rural or underserved populations (AAMC, 2016). For example, New Mexico offers a program that repays \$50,000 of debt (on top of a salary) for two years of work. Several other states offer unique loan forgiveness programs (AAMC Loan forgiveness). Additionally, some universities forgive 100 percent of Perkins Loans for public service or allied health professions. I suggest inquiring with individual universities for information regarding Perkins Loan forgiveness. Student borrowers are not taking advantage of these programs, as

evidenced by the high proportion of late payments and defaults (Mitchell, 2016).

As a rule of thumb, one should not take on more student loan debt than the starting salary of their expected position (Pounds, 2016). With this as the benchmark, you should comfortably be able to pay off your debt in 10 years or less. In audiology, the median student loan debt reported by fourth-year students in 2014 was approximately \$80,000, while the median income is approximately \$65,000 and relatively stagnant. In 2006, only four percent of students reported debt above \$120,000; in 2014, that number skyrocketed to 24 percent (Gaffney, 2016). It is no surprise that this coincides with the transition from a master's-level degree to an AuD. This is inherently unsustainable and will negatively affect the profession in various ways. It must change.

This quagmire offers an opportunity for universities and professional organizations, such as the Academy, to take decisive action in support of students as they navigate the multifaceted student loan decisions in the brave new world of the AuD. In the meantime, students must educate themselves on financial literacy and advocate for meaningful change. The manner in which universities, professional organizations, and students approach this evolving issue will have impactful effects on the future of our profession. In the case of my two friends, they turned down offers from elite institutions. I consider this to be an unfortunate professional sacrifice, albeit financially wise. In my opinion, all stakeholders should aim to create a debt-free fourth year so students, and the profession as a whole, are in the best possible position for the future. 🍷

Garrett Thompson is an audiology student at the City University of New York and is currently completing his externship at the Callier Center of UT-Dallas. He was a national finalist in the Academy of Doctors of Audiology Student Business Plan Competition. Thompson received a BA in Economics from Boston College. Contact him at gthompson@gradcenter.cuny.edu or @Dr_Audball.

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Centers for Medicare and Medicaid Services' New Quality Payment Program

Understanding MIPS, APMs, and the Future of Medicare Payment

By Kate Thomas

In late March 2015, as audiologists enjoyed the AudiologyNOW!® conference in San Antonio, Texas, the U.S. House of Representatives was hard at work back in Washington passing historically significant legislation. This legislation repealed the flawed sustainable growth rate (SGR) formula once and for all, and established a framework for a value-based payment system for Medicare providers. In April 2015, the U.S. Senate followed the House's actions and passed the legislation. The Medicare Access and Children's Health Insurance Program Reauthorization Act of 2015 (MACRA) was then signed into law, thus changing the future of provider payments under the Medicare program.

As discussed, MACRA repeals the flawed SGR formula, putting an end to the looming threat of cuts to Medicare payments and the uncertainty that existed as a result of the many (16) temporary fixes. It also provides the foundation for the new Medicare-named Quality Payment Program (QPP), marking the first time Medicare payments will be tied directly to the value of the care provided. The QPP has two pathways for provider participation. The first pathway is through the Merit-based Incentive Payment System (MIPS). The second pathway is through provider participation in certain eligible

alternative payment models (APMs). Though there are two pathways for participation in the new QPP, CMS anticipates that the majority of providers will participate through MIPS, at least in the initial years of the program. Overall, the new system established by the MACRA law focuses on providing high-quality, low-cost, patient-centered care to Medicare beneficiaries.

Merit-based Incentive Payment System

To create MIPS, MACRA combined and streamlined CMS' existing quality programs, including the Physician Quality Reporting System (PQRS), Value Modifier (VM) Program, and the Medicare Electronic Health Record (EHR) Incentive Program. Under MIPS, payment adjustments will now be calculated across four categories: quality, resource use, clinical practice improvement activities (CPIA), and advancing care information. Providers, or "eligible clinicians" as providers are referred to under MIPS, would receive a composite score based on their participation across the four performance categories. CMS will reweight the scores for eligible clinicians that do not have measures in all performance categories.

Quality: Eligible clinicians would choose six measures to report, in contrast to the nine measures currently required under PQRS. When choosing the six quality measures, eligible clinicians would choose one cross-cutting measure and one outcome measure (if available) or another high-quality measure. All measures would be released annually for review.

Resource Use: This replaces the VM. CMS would calculate scores for this category based on Medicare claims, meaning there are no reporting requirements for eligible clinicians. This category would measure performance by reviewing episode-specific measures and accounting for differences among specialties. Eligible clinicians that deliver more efficient, high-quality care achieve better performance and score the highest number of points.

Clinical Practice Improvement Activities: CMS has stated that this category incentivizes providers for improvements that many have already been implementing for years. MIPS would reward eligible clinicians in areas such as care coordination, beneficiary engagement, expanded practice access (e.g., evening or weekend hours), and patient safety. Eligible clinicians would select from

a list of more than 90 options with certain activities weighted higher than others.

Advancing Care Information: To successfully participate in this category, eligible clinicians must use certified EHR technology and report on a customizable set of measures that reflect how they use EHR technology in their day-to-day practice. There will be a particular emphasis on interoperability and information exchange. This category was formerly Meaningful Use of EHR, a program in which audiologists were statutorily excluded.

MIPS Impact on Audiologists

To make the transition to quality reporting under MIPS, PQRS will sunset in the performance year of 2017. This means that 2016 is the final year in which providers will be required to participate in the PQRS program. The year 2017 marks the first performance year for MIPS, with payment adjustments being distributed in 2019. It is important to note that audiologists are not eligible for participation in MIPS in the first two years (2017 and 2018). The secretary of the U.S. Department of Health and Human Services has the authority to include other professionals, including audiologists, beginning in 2019. This means that audiologists will not be required to report on anything, including PQRS, in 2017, but will have the option to “practice” reporting on measures through MIPS. The Academy will provide more information on voluntary reporting in the


coming months, and upon release of the final rule addressing the implementation of MIPS. As referenced earlier in the article, CMS will have the ability to reweight categories if providers do not have eligible measures in all categories. For example, the Academy anticipates that when audiologists are able to participate in MIPS, they may not have eligible measures in the resource use or advancing care information categories based on their current exclusions from the VM and Meaningful Use of EHR. This would mean that the composite score earned by audiologists would be based on their performance in the quality and CPIA categories.

Alternative Payment Models

The Academy continues to review and discuss CMS’ actions and rulemaking related to the role audiologists can play in APMs to facilitate high-quality, cost effective care. According to CMS, APMs are new approaches to paying for medical care through Medicare that incentivize quality and value. For example, the MACRA law indicates that APMs could include Medicare Shared Savings Program, CMS Innovation Center models, demonstrations under the Health Care Quality Demonstration Program, or a demonstration required by federal law. Not all APMs will qualify for the purposes of the QPP—only the most advanced APMs that meet the criteria outlined in MACRA. The criteria include a base payment on quality measures comparable to those in

MIPS, use of certified EHR technology, and either (1) bear more than nominal financial risk for the monetary losses OR (2) be a medical home model expanded under Center for Medicare and Medicaid Innovation (CMMI) authority.

The Academy will continue to look for opportunities with both physician and non-physician stakeholders to pursue meaningful involvement in APMs, and has urged CMS to consider the role of audiologists in the health-care delivery model and how that translates to participation in APMs.

Since the passage of MACRA in 2015, CMS has been working on the implementation of the many provisions outlined in the law by soliciting feedback from health-care providers and other stakeholders through a number of channels, including requests for information and formal rulemaking. The Academy has offered comments in response to CMS requests to ensure the interests of audiology are appropriately represented throughout this process. Those comments, in addition to a host of other resources, are available on the Academy’s Web site by searching keyword “MACRA.” The Academy will continue to update its members as we conduct further analysis of these programs and develop additional resources. 

Kate Thomas, MA, is the Academy’s director of payment policy and legislative affairs.

Following Up with a Foundation Grant Recipient **A Conversation with Greta Stamper**

By Alison Grimes



Foundation Board Trustee, Dr. Alison Grimes, had the opportunity to catch up with a former Foundation Grant Recipient, Greta Stamper. Stamper was the recipient of the James Jerger Award for Excellence in Student Research in 2009 and a Student Investigator Research Award in 2012. After earning her AuD at the University of Iowa in 2009, Stamper continued on to receive her PhD from the University of Kansas in 2013.

What is your research focus?

In a nutshell, I am interested in hearing loss prevention. This includes hearing loss caused by noise exposure, ototoxicity, genetics, or an unknown etiology. My dissertation focused on evaluating normal-hearing humans with a history of exposure to loud sound for the phenomenon of “hidden hearing loss” (as described by Kujawa, Liberman, and colleagues in animal models). This work has implications on how we assess individuals for hearing-related complaints in the clinic, counsel patients exposed to high levels of noise, and the recommendations for healthy-hearing habits across the lifespan.

How did this topic first become of interest to you?

Hearing-loss prevention has been a topic of interest of mine since I have entered the field. I think a lot of my interest stems from the fact that I have slowly progressive bilateral sensorineural hearing loss. It is a topic that hits home. Once hearing loss has developed, there are typically no treatments available to recover it. Amplification options available nowadays are wonderful, but the ideal situation is being able to prevent hearing loss from developing, in cases where you can, so there is not a need for rehabilitation in the first place.

When you received the AAAF funding, how did that change/improve/speed your work?


It was quite an honor to be awarded the AAAF funding. This meant I was able to actually pay research participants and purchase equipment! As any researcher knows, it can be challenging to find participants to volunteer for research projects if there is little to no financial incentive provided (this can be especially true in a college-aged population). Being able to provide financial compensation really sped up the process of subject recruitment. Additionally, I was able to purchase the ideal equipment for use in my dissertation study, and I was less reliant on the use of my mentor’s equipment and funding.

Would you advise other researchers to consider applying for AAAF funding?

Definitely! Yes, my application ended up being chosen for funding, which was wonderful news but the application process was a great learning experience. This would have been the case regardless of what the outcome of the application was. It is easy to talk yourself out of applying for things with self-doubt. However, the only sure way to not get funded is to not apply.

What other advice might you offer?

Start early with your application. Allow yourself time to construct the idea itself solidly prior to sitting down and writing your formal application. Have multiple people read your application before submitting it. It always is beneficial to have multiple sets of eyes reading, both for content and grammar.

The Foundation offers a wide variety of grants and scholarships in research and education. Please check the Foundation Web site (www.audiologyfoundation.org) for an updated list of offerings. 

Alison Grimes, AuD, Board Certified in Audiology, is the director of audiology at the Audiology Clinic, UCLA Medical Center. She is a member of the American Academy of Audiology Foundation Board.

For More Information

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The deadline for receipt of applications and related materials is **October 4, 2016**.

Learn more at www.audiology.org; search keywords “grants program.”







New Year, New Opportunities

What Your SAA Membership Can Do for You

By Kaitlyn Kennedy

A new year means a lot of new opportunities—new clinical placements to complete, new professors and classes to learn from, a new cohort in your program, and maybe even an entirely new place to live for your first year of school or your externship. Graduate school constantly presents new challenges to overcome and new ideas to conquer. Regardless of what lies ahead, the Student Academy of Audiology (SAA) is here to provide a voice for students and offer services and information to help you through the year.

Student Community

As an Academy member, you should receive e-mail updates covering discussions on the Audiology Community listserv online forum. Did you know there's a community specifically for students? It's a great place to ask questions about coursework, discuss clinical experiences, odd cases you see, fundraising ideas for your chapter, or anything else pertinent to audiology and the SAA.

Survey Distribution

Most students have to do a research project during their course of study. Often, we find ourselves needing survey data but having to pay for a list to distribute the survey. As a student member of the Academy, your survey can be distributed to other members for free! Survey links are published in and distributed through the *Audiology Weekly* e-newsletter to both professionals and students. With nearly 12,000 people having the opportunity to participate in your survey, you should have enough data to in no time.

Resume Review

As students, we are constantly applying for various scholarships, fellowships, externships, and jobs. Therefore, an outstanding resume or CV is a necessity. Most universities offer some kind of resume review, but it's typically completed by someone with a human resources or business background. Through the Academy's Resume Review service, an audiologist will review your resume, cover letter, thank you note, and anything else you may need for an application. This will help you further tailor your submission and ensure your application is the best possible.

Grants and Scholarships

In conjunction with the American Academy of Audiology Foundation, the SAA sponsors various individual scholarship opportunities and research grants for audiology students. Programs such as the Student Travel Award Reimbursement (STAR) Program, the Student Leader Scholarship, and the Student Investigator Research Grant serve to provide financial assistance to students interested in obtaining further education and research experience in audiology and hearing balance. As a student member, you will receive reminders on submission deadlines and upcoming opportunities for these individual scholarships and research grants.

New Members of the Student Academy of Audiology

Sarah Anderson
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Volunteer Opportunities

With your student membership, you have the chance to be a student voice in the Academy. You can volunteer for an SAA or an Academy committee. This is a great way to make sure your opinions are heard and you are contributing to the advancement of audiology. Typically, volunteering with the SAA requires three to four hours of commitment a month. There may also be opportunities for smaller commitments throughout the year. It is a fantastic way to get to know peers at other schools and contribute to what happens over the next year.

Membership to Fellow Status after Graduation

We always hear how important it is to hold membership in a professional organization but are never told why. Membership in any organization allows your voice to be heard. Our professional organizations chart the course for our future through position statements, scope of practice documents, ideas to improve our profession, and legislative lobbying. Regardless of which organization you choose, it is essential to do your research and discover what each organization represents, what they've accomplished in the last five years, and where they plan to go in the next five years. Hopefully, the Academy is where you choose to have your professional home. If so, you have the opportunity to upgrade the SAA membership you hold during your externship to Fellow membership in the Academy at no charge. You also receive discounted membership dues for two years after graduation. Be sure to take advantage of this program and Fellow Up! so your views can be well represented.

Be sure to renew your student membership for 2017 to take advantage of these opportunities and many more! The SAA can only accurately represent the student voice if you tell us where you would like to see our organization go. Every new year of graduate school brings new changes and challenges. The SAA is here to make those hurdles a little smaller and improve the lives of audiology students nationwide! 🎓

Kaitlyn Kennedy, AuD, is a recent graduate of the Missouri State University Doctorate of Audiology program. She served as the 2015–2016 president of the Student Academy of Audiology and currently serves as the past president to the SAA Board of Directors. Throughout her graduate career, Kaitlyn has been heavily involved in SAA and the Academy, and is part of the New Professionals Subcommittee.



A full list of membership benefits can be found on the SAA Web site at <http://saa.audiology.org/about-us/membership>.

Student members take part in the SAA Mix and Mingle at AudiologyNOW! 2016 in Phoenix, Arizona.





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Audiologists Are Taking Precepting to the Next Level with the CH-AP™ Training Program

By Meagan P. Lewis

The American Board of Audiology (ABA) Certificate Holder—Audiology Preceptor (CH-AP™) Training Program is off to a great start, with 21 different organizations and more than 90 audiologists from across the country participating in Modules 1 and 2 as of July 2016!

The CH-AP is designed for licensed audiologists who provide the vitally important clinical instruction required for audiology students to earn their degrees. As of this summer, Module 1—Role of the Preceptor in a Clinical Environment and Module 2—Clinical Dynamics: Assessment and Performance, were accessible on the American Academy of Audiology’s eAudiology platform (www.eAudiology.org). In less than four months, a cross-section of university and college-level audiology programs and health-care practices had registered audiologists for the training.

Through post-assessment surveys, we have found that participants of both modules consider the ABA CH-AP Training Program of great value. One participant shared, “Very enlightening! It should be mandatory that anyone who is or wants to be a preceptor take this Module 1 course.” Others, including Kody Brooks, AuD, of Texas ENT Specialists, said of Module 1, “Very informative. I’ve had several

students, and this module gave me great ideas to ensure their success.”

Geri Rosendahl, AuD, of Texas ENT Specialists, has been precepting for seven years and shared, “I appreciate all of the information presented in this module and look forward to the others. I found it highly valuable, and it made me think about things I had not previously considered regarding precepting.”

In addition, participants appreciate the resources available in the toolbox, which allow audiologists to customize what they study to meet their unique needs, and include the following:

- Assessing the readiness of a clinical site
- Recruiting and selecting students
- Understanding Family Educational Rights and Privacy Act (FERPA) regulations
- Adhering to the Health Insurance Portability and Accountability Act (HIPAA) compliance
- Setting goals
- Understanding and adhering to Medicare
- Teaching initial clinical assessments to students

Comments we have received range from, “I liked the resources available in the toolbox to provide students with a structured way to evaluate a preceptor,” to “I believe the ABA preceptor certificate program will improve sites, because of the information and toolbox content. I am looking forward to using this with our new fourth-year student this fall!”

Dr. Rosendahl said, “I have precepted students from all over the country, from strong audiology programs to weak programs, top-performing students to poor-performing students, communicative university programs to university programs who never contacted me as the preceptor (95 percent of the programs). There is tremendous diversity in all aspects of precepting. Every student presents a different challenge as well as a different perspective. Those of us who have been practicing for multiple decades, while being strong clinicians, are not necessarily preceptor material. I look forward to the coming modules.”

As I said when we announced the CH-AP, preceptors are responsible for more than one-fourth of an audiology student’s educational experience, which is an incredible responsibility. They act as coaches, teachers, role models, mentors, and evaluators. They have an essential role in the audiology educational model and often are the last teachers a student




has before graduation. The CH-AP is designed to make sure that preceptors are well-trained and prepared to help students of all kinds become practice-ready clinicians, prepared with the technical and professional skills they'll need to be successful.

The voluntary certificate program, which was underwritten by Starkey Hearing Technologies, with module support from Sprint CapTel and Audigy Group, is aimed at creating a well-rounded, knowledge-based precepting experience to provide critically important opportunities for students to apply classroom learning in authentic clinical settings. It also will help preceptors facilitate students' transitions from novice clinician to competent, independent professional. There are four modules in the CH-AP certificate. Modules 3

and 4 will launch on August 1 and September 15, respectively.

Once an audiologist has successfully completed the four modules and earned the CH-AP certificate, which is valid for five years, the ABA will add his or her name to the CH-AP National Registry of Audiology Preceptors™, which will be open to the public so consumers, university programs, and students may search for preceptors who hold the certificate.

We are pleased that so many organizations and audiologists have begun to take the CH-AP, which shows their commitment to the audiology profession and their mastery of preceptor core competencies. Those who complete all four modules successfully will be able to say that they are part of a new cohort of skilled preceptors and represent the best possible coaches, teachers, role

models, evaluators, and mentors who can create the best possible field placement experiences for students. 

Meagan P. Lewis, AuD, Board Certified in Audiology, CISC, is the chair of the ABA Board of Governors. A presentation about the CH-AP, including training fees, detailed curriculum for training modules, and eligibility requirements is available at www.boardofaudiology.org. To access the CH-AP modules, visit eAudiology.org.



Another Close Look at the 2016 Clinical Education Forum

By Martha Mundy, Gail Whitelaw, and Doris Gordon

This is the second of three articles featuring abstracts from the 2016 Clinical Education Forum that took place this past spring in Phoenix at AudiologyNOW!® 2016. In this issue, we look at two more notable abstracts, the first discussing the assessment of clinical skills at the University of North Carolina at Chapel Hill and the second looking at leadership skills as part of a curriculum in an AuD program, in particular, at The Ohio State University.

It is the intent of ACAE to showcase these abstracts and emphasize the importance for all programs to demonstrate high quality clinical education on a consistent basis. This was one of the principle purposes for beginning the conversation last spring and continuing it until this goal is reached.

As noted in the previous issue, we look forward to hearing your comments and suggestions about how this goal can be accomplished.

Assessing Clinical Skills: Preceptor, Profession, or Program Responsibility?

Martha Mundy, AuD, Coordinator of AuD Studies, The University of North Carolina at Chapel Hill (UNC)

The responsibility for clinical education in audiology resides not only within academic training programs, but also with clinical educators and the profession. Several individuals at this forum have described innovative formative tools used at their institutions designed to improve this shared responsibility by

- Being explicit in descriptions about targeted student behaviors
- Using simulations in advance of or in parallel with clinic assignments
- Being systematic in communications between the program and clinic.

At UNC, we have adopted a Clinical Comprehensive Exam (CCE) to supplement preceptor evaluations in verifying clinical skills. The CCE has the advantage of standardizing patient variables that students must respond to; whether the targeted skill is directly observed by faculty, demonstrated at a hands-on

station, e.g., requiring knowledge of programming technologies, or a more traditional written evaluation describing a clinical case.

We consider our CCE, along with other program-specific tools, to be vitally important in the area of formative assessment. As a profession, however, we must decide whether a single summative assessment required of all AuD graduates, i.e., PRAXIS® with 120 Multiple Choice Questions/MCQs, is sufficient to confirm knowledge and competencies across the scope of practice.

Medicine and optometry have a longer history of evaluating student outcomes. In addition to two separate tests with 600 MCQs (typically taken by students in second and fourth year), medicine requires that students pass a clinical skills evaluation using standardized patients at one of five test centers. The final medical licensing requirement is a two-day assessment, with additional MCQs and computer-based patient simulations that are usually taken during

the first post-graduate year. Similarly, optometry assures student knowledge and skills via a two-day exam with 500 MCQs and a later, clinical-skills evaluation.

On the United States Medical Licensing Examination FAQ Web site (www.usmle.org/frequently-asked-questions/#step2cs), the importance of having a metric separate from program-specific assessments is clearly stated:

Step 2 CS provides the assurance that all licensed doctors have met a common standard, no matter where or when they were educated.

Whether audiology moves to create a multi-part assessment, a standardized clinical skills test, or some combination of the two, it is time to move beyond 120 MCQs as the universal benchmark for audiology education.

Truth and Dare: Building a Leadership “Culture”

Gail M. Whitelaw, PhD, Department of Speech and Hearing Science, The Ohio State University, and Leadership Education in Neurodevelopmental Disabilities (LEND) grant; Nisonger Center, The Ohio State University

Facilitating growth in the areas of clinical skills, critical thinking, and problem solving are germane in the transition from student to professional. Perhaps as important as clinical skills are those skills that will support the development of the future leadership of audiology. Just as clinical skills are shaped, leadership skills can and should also be taught as part of the AuD program.


Professional programs and organizations have incorporated leadership opportunities to empower the growth of leadership skills for both audiologists

and future audiologists. A broad base of leadership skills should be a focus, including developing self-awareness, ability to negotiate, creating teams, and building consensus. Working with a specific leadership program, such as StrengthsFinder, can be supported through leadership centers on university campuses.

Programs that focus specifically on students have included the Michigan Student Leaders in Audiology Meeting (MiSLAM), Phonak University, and the LEND programs funded by

Maternal and Child Health Grants. The “dare” aspect of leadership is to honestly present challenges about leading to a stronger future for the profession to our students, including developing consensus in the profession, creating a standard of care that reflects patient needs and the expertise of audiology, reconsidering the definition of “fellow,” and addressing the value of a voluntary certificate for the profession.

Conclusion

Audiology education has changed significantly in the transition from MA/MS to AuD. Clinical skills development remains a critical component, however, education has a broader perspective than in the past. University programs must work to prepare the future of audiology, including providing opportunities for leadership education to students so they are well prepared to take on the roles that are required in the next steps of their careers. 



Presenters at the ACAE Clinical Education Forum, April 16, AudiologyNOW! 2016 in Phoenix, Arizona. Left to right: Ian Windmill, president-elect, American Academy of Audiology; Sumit Dhar, Northwestern University; Gail Whitelaw, The Ohio State University; David Brown, Pacific University; Jay W. Hall, vice chair, ACAE; Martha Mundy, University of North Carolina; Carol Cokely, University of Texas at Dallas; Doris Gordon, executive director, ACAE; Rupa Balachandran, University of the Pacific; Peggy Nelson, CAPCSD; Barbara Cone, ASHA; Erica Friedland and Alyssa Needleman, Nova Southeastern University; Lisa Hunter, chair, ACAE; and John Coverstone, American Board of Audiology.

New Members of the American Academy of Audiology

- Patrick Brand, AuD
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- Adam Jessup, AuD
- Sabrina Marciante, AuD
- Dina Rollins, AuD
- Snyde Simbert, AuD
- Amanda Weydeck, AuD

Raising Public Awareness in Audiology

By Trey A. Cline

The American Academy of Audiology's Public Relations Committee has been working diligently over the past year to begin launching initiatives to increase the awareness of the field of audiology and audiologists as the "go to" professionals for hearing and balance disorders to the general public, as well as to colleagues in the medical community. The committee has placed a strong focus on the charges set forth by the Academy, which include promoting audiologists to the general public and to health-care professionals. Additionally, the committee has focused on promoting the field of audiology as a career option to younger generations.

October is National Audiology Awareness Month, which is a prime time to reach out to medical

professionals and citizens of your communities in order to raise awareness regarding hearing loss and promote audiologists as the leaders in all things related to hearing and balance. This is a great opportunity to be involved in community outreach and directly interact with those who walk among you every day. Ideas to consider could be supporting a local walk, creating postings for social media, or setting up public hearing screenings. The list of ideas to promote and raise awareness about the profession could be infinite.

October is an ideal time to reach out to health-care providers in your community who may frequently have patients with hearing loss, and help them understand the impact that hearing loss can have on everyday

MYTH vs FACT
— THE TRUTH ABOUT HEARING LOSS —

MYTH Portable music and video devices do not affect your hearing.	FACT Too many people are at risk for hearing loss due to unsafe personal use of portable music devices.
WHAT TO DO Limit your use of portable devices and keep the volume level at the half-way point or under. If you have to take out your ear buds to hear someone speaking at an arm's length away, the volume is probably unsafe.	
MYTH Hearing loss does not affect newborn babies.	FACT Approximately 6 out of 1,000 babies have a significant hearing problem at birth. And, more than 4,000 babies are born with a hearing loss each year.
WHAT TO DO Make sure your newborn's hearing is screened before leaving the hospital or within the first couple weeks of life. If he or she does not pass the screening, schedule an appointment with an audiologist.	
MYTH Everyone who has hearing loss is older than age 65.	FACT Half of those individuals with hearing loss are younger than age 65.
WHAT TO DO If you suspect a hearing loss or have ringing in the ears, visit an audiologist.	
MYTH Dangerous loud activities do not affect your hearing.	FACT Unintentional hearing loss can be caused by lawn/mower equipment, concerts, sporting events, fireworks shows, hair dryers, lawnmowers, and even clocks. A single exposure to excessive noise can also cause permanent hearing loss.
WHAT TO DO Noise-induced hearing loss is permanent and is almost always preventable! Wear hearing protection when around sounds louder than 85 decibels, turn down the volume, and walk away from loud noise.	
MYTH Dizziness and balance disorders are easily recognized and not that serious.	FACT Unreated dizziness and balance disorders can increase fall risk and lead to hip fractures, broken bones, and head trauma.
WHAT TO DO If you feel dizzy frequently or suspect a balance disorder, visit an audiologist who specializes in vestibular evaluation and treatment.	
MYTH Hearing loss does not affect your day-to-day life.	FACT Individuals with untreated hearing loss are often excluded from communication and have feelings of loneliness, isolation, depression, and frustration.
WHAT TO DO If you suspect a hearing loss, visit with an audiologist who can evaluate your condition and provide rehabilitation and treatment.	

HEARING LOSS IS THE THIRD MOST COMMON HEALTH PROBLEM IN THE UNITED STATES.

HEART DISEASE
ARTHRITIS
HEARING LOSS

1 2 3

APPROXIMATELY 1 IN 8 CHILDREN AGES 6-19 HAVE NOISE-INDUCED HEARING LOSS.

APPROXIMATELY 30 MILLION WORKERS ARE EXPOSED TO HAZARDOUS LEVELS OF NOISE ON THE JOB.

30 MILLION

FACT: Audiologists are the primary health-care professionals who evaluate, diagnose, treat, and manage hearing loss and balance disorders in adults and children. If you think you may have a hearing loss, visit www.howsyourhearing.org and click on "Find an Audiologist."

Statistics and facts courtesy of the World Health Organization (WHO), the National Institute on Deafness and Other Communication Disorders (NIDCD), and the Centers for Disease Control and Prevention (CDC).

FUNDING FOR NATIONAL AUDIOLOGY AWARENESS MONTH PROVIDED BY HYPERSOUND THROUGH A GIFT TO THE AMERICAN ACADEMY OF AUDIOLOGY FOUNDATION.

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hearing solutions

activities and quality of life. This not only promotes the profession, but is also a way to increase referrals to your practice. In a previous investigation by Laplante-Lévesque et al (2012), patients often cited general practitioners as the first step and initial point-of-entry towards seeking hearing health-care services. Other participants in the same study turned to their primary-care provider for recommendations of hearing health-care providers and often reported disappointment when there was a lack of information or referral on the part of their primary provider.

Patients often cite a variety of reasons for not seeking hearing health care, including lack of time and financial resources, concerns regarding aesthetic appearance of hearing aids, feelings that hearing aids will not address their issues, and lack of perceived hearing difficulty (Laplante-Lévesque et al, 2012). There are several ways to overcome many of the issues reported. Providers may consider offering alternative office hours one day per week or twice per month to help individuals who may not have an easy time scheduling appointments during typical business hours. In terms of financial resources, practices may consider various payment plans, credit for health-care services, or help to guide individuals towards financial assistance programs. When addressing aesthetic appearance and the feeling that amplification will not address their hearing needs, the easiest way to combat this reasoning is to provide a demonstration of amplifications and consider allowing the patient one or two weeks to utilize amplification in their everyday lives. This will allow the patient to make an educated decision regarding how amplification and hearing loss affects their particular life.

Raising public awareness about audiology to both the community and other medical providers is one key aspect to the long-term success of the field of audiology. Take the opportunity this October during National Audiology Awareness Month to reach out to medical colleagues in your community and the people with whom you interact daily to educate and raise awareness regarding hearing loss, balance disorders, and the profession of audiology. The Academy provides free resources to our members through the Academy's Web site, www.audiology.org, click on the Get Involved tab, Public Awareness, National Audiology Awareness Month. We must all do our small part to raise awareness and to ensure that the profession of audiology succeeds as a whole. 🎧

Trey A. Cline, AuD, is an audiologist at the Chandler Medical Center in Kentucky and the chair of the Academy's Public Relations Committee.

Reference

Laplante-Lévesque A, Knudsen LV, Preminger JE, Jones L, Nielsen C, Öberg M, Lunner T, Hickson L, Naylor G, Kramer SE. (2012) Hearing help-seeking and rehabilitation: Perspectives of adults with hearing impairment. *Intl J Audiol* (51)2:93-102.



In Memoriam— Noel Matkin, PhD

The American Academy of Audiology was saddened to learn that Noel Matkin, PhD, passed away July 4, 2016, at the age of 84. Noel was scientist, teacher, leader, and mentor to many in the profession. Dr. Matkin advanced the discipline of pediatric audiology to new heights, and he was very active in the early days of the Academy, serving on the Board of Representatives (1991-1994) and co-chairing (along with Dr. Susan Jerger) the Academy's fifth annual convention in Phoenix, Arizona. The convention theme was "Turning up the Heat," and was our first national meeting in a city-owned convention center.

Noel was born in Liberal, Kansas, on June 4, 1932, to parents Marie and Gene Matkin. Upon graduating from high school, he attended the University of Wichita, majoring in Logopedics (Speech and Hearing Sciences). After graduating as outstanding senior in his department, he joined the United States Air Force to fulfill an ROTC obligation. He was assigned to the 56th Weather Reconnaissance Squadron at Yokota Air Force Base, Japan. During his

three-year assignment, he and his late wife, Arlene (Marsh), developed a program of speech and hearing services, including a classroom for preschoolers with special needs for American children on the base. Before discharge, he and Arlene received a commendation for outstanding community service from the Commander of the Fifth Air Force Wing.

When he returned to the United States, Noel completed both master's and doctoral degrees in audiology at Northwestern University. Subsequently, his academic career included serving as an associate professor at the University of Connecticut and as a tenured professor at both Northwestern University and the University of Arizona. In addition, Noel was director of a special unit at the Boys Town National Research Hospital, heading a multidisciplinary team dedicated to the evaluation and rehabilitation of children with complex communication disorders.

His contributions to the profession were recognized by three national organizations when he received Honors from the American Speech, Language-Hearing Association, the outstanding clinical teaching award from the American Academy of Audiology (2000), and the Fred Berg Award from the Educational Audiology Association for lifelong dedication to hearing-impaired children and their families.

Apart from his dedication to an academic career, he was a committed member of his community in Tucson, Arizona, serving on the board of a variety of nonprofit organizations. In 2002, Noel received the state activist award from the Arizona Human Rights Fund and he served as co-chair of the City of Tucson Commission on GLBT Issues when the domestic partner registry was established in 2003. In 2008,

Noel received Wingspan's Godat Award for long-term contributions to the community. Most recently, in 2016, Noel was recognized for his contributions to the community in Southern Arizona, and was awarded the inaugural Civic Leadership Award from the Community Foundation for Southern Arizona.

Noel was preceded in death by his wife, Arlene (1983); his son, Jon Christopher (1985), and a step-sister, Margo Riddles (2012). He is survived by his daughter and her husband, Cynthia and Michael Lazarz, and three much loved grandchildren: Evan and wife Tara as well as great-grandson Dean, Andrew and wife Danielle, and Kerry. He is also survived by his domestic partner, Dr. James Sincox.

A memorial service celebrating his life was held at St. Philips in the Hills Episcopal Church in Tucson, Arizona, on Saturday, July 30.

In lieu of flowers, memorial contributions to either the Matkin/Sincox endowment at the Community Foundation for Southern Arizona (2250 East Broadway Boulevard Tucson, Arizona 85719-6014) or the Noel D. Matkin Scholarship, Wichita State University Foundation (1845 Fairmount Wichita Street, Kansas 67260-0002) are appreciated.

Noel enhanced the lives of all who were fortunate enough to meet him and he will be dearly missed. 🕊

Erratum

Audiology Today would like to sincerely apologize to readers for the publication of an inaccurate stock photo on the Table of Contents page in the July/August 2016 issue. This photo inadvertently depicts a woman being fitted with a left ear mold in her right ear. Although we chose this photo from a stock gallery, we should have realized this inaccuracy and not published the photo.

We have replaced the photo on the digital version of the issue on the audiology.org Web site.

We deeply regret this oversight and will work more diligently on the photo review process, so that we do not repeat these inaccuracies going forward. Thank you. 🕊

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